
Youth as Media Art Designers: Workshops for Creative Coding

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Abstract

We describe our efforts to bring media arts into design work with the goals to introduce new expressive forms in programming to urban youth. We're presenting the findings from a series of workshop organized together with professional media artists that focused on immersion, interaction, color and perspective using Scratch, a media-rich programming environment. Our findings illustrate that a focused introduction of these features can be easily accomplished and help young designers to become more sophisticated in their creative expression. In the discussion we outline suggestions for activity and theme designs for future workshops.

Keywords

Media Arts, Programming, Creativity, Children Designers, Community Technology

ACM Classification Keywords

K.3.1. [Computers and education]: Computer Uses in Education. General Terms: Design, Human Factors

Introduction

While research on children as designers and design partners [2], as well as on design tools and materials [9], has been at the forefront of the field of interaction

design and children, it is only recently that design for creative expression has been included in these efforts. Perhaps one reason for this trend is that children's engagement with digital media production has recently proliferated thanks to their participation in social networking sites and virtual worlds, making creative and expressive applications of new media highly visible. This follows similar trends in the professional sector, as artists adopt digital technologies as creative forms [4] and in the academic field, where computer scientists have started exploring connections between computation and creativity to support the creative process of humans. For these and other reasons, we have seen an increased interest how digital tools and activities can be designed to create works of art [1] rather than to support the design of specific software applications such as games, robotic designs, or educational activities. The computational craft movement [3] is perhaps most closely related to our efforts of introducing a new creative component into the design of interfaces, tools, and activities for children. In this poster, we describe a series of workshops and concepts of media art design that were introduced to better understand how artists look at the creative manipulation of computational features and report on the learning and perspective of media artists working with young designers in two computer clubhouses, community technology centers.

Workshop Series

The workshops took place at two computer clubhouses located in Los Angeles, California [8]. Computer clubhouses are after-school, community technology centers that aim to give at-risk youth access to a rich array of new media including computers, videogames, a variety of creative software applications, including

Scratch, which was the focus of our three year investigation [5; 7]. Scratch was chosen as the focus of this work because it enabled many of the same applications as professional-line media arts software, including the ability to manipulate the language of the computer using computer programming [6] (see Figure 1). Objects can be any imported graphic image, uniquely created or drawn, or chosen from a personal archive. Designers can create or incorporate existing sound files, video, and other input/output devices can also be integrated into new design projects.

We worked together with the professional media artists to choose a core media arts concept to explore as the focus for each of the workshops. Initially, there were four core ideas that we explored: (1) Interactivity, (2) Color, (3) 3D Perspective, and (4) Immersive, First-Person Game Design. These represented a mix of concepts that are shared with the traditional arts (i.e., color and perspective) as well as some concepts and ideas that are unique to new media (i.e., interactivity and immersion).

Workshop 1: Interactivity

Interactivity is the ability of the viewer to directly manipulate and influence their experience of new media. Rather than creating new projects, the focus of this workshop was to think about user inputs and ways to interact with technology such as through the keyboard, mouse, or, in this case, the Wii controller. Youth discussed the affordances of each of these and talked about design conventions associated with each of the traditional user input devices and then experimented with the controllers to map programming commands onto various buttons on the Wii controller.

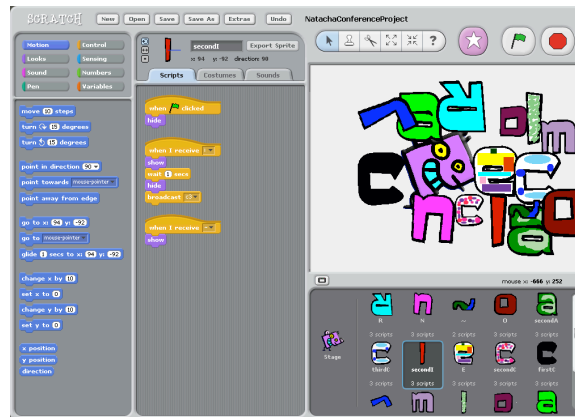


figure 1. Full screenshot of Scratch

Workshop 2: Design & Color

The second workshop focused on mixing colors interactively and on principles of generating color using digital tools. Because youth have so much experience with color, the media artist played a crucial role in elevating the conversation so that the youth weren't just playing with color, they really started to experiment with different color combinations – some good, some intentionally bad. It was really the resulting conversation about color that turned the activity into a worthwhile learning activity, which illustrates the role of having expert mentors on hand to inspire youth in their work.

Workshop 3: Immersion

All of the youth worked to modify existing games as part of the Adams' workshops. Most of the youth decided to modify Adams' first person, survival horror game since it was near Halloween when the youth were creating their projects (and perhaps because the horror genre is very popular amongst youth). The original

game, Adams had a haunted house that you explored in Scratch. Youth had clear ideas for modifying the games, adding future levels, and making it generally more difficult. As youth engaged in this type of game design, they were consciously shaping experiences for other youth and building their ideas of what it means to immerse others into their suggested 3-dimensional three-dimensional environments in Scratch.

Workshop 4: Perspective

The fourth workshop explored concepts of perspective drawing and motion as it related to Scratch and media arts. The 2-dimensional environment of Scratch lent itself well to exploring 3-dimensional movement. When it came time to exploring the concept of 3-dimensional movement, Scratch was a reasonably good tool to see this happening. However, youth were better able to explore the project than they were able to create something similar from scratch. This was due in large part to the sophistication of the code that was necessary to move objects at oblique angles and to make it increasingly get smaller as it disappeared into the distance.

Discussion

We used the implementation of a series of workshops to understand how design media artists approach the creative manipulation of new media features such as immersion and interactivity and more traditional features such as color and perspective in a programming environment. While all the workshops were well received, we already noted in our observations that some features such as immersion also need to be contextualized in a way that allows youth with different interests to engage. We're also aware that our choice of media arts features explored

in the workshops was just a small subset of other equally important features. For instance, other workshops could focus on narrativity and explore different forms and pathways in interactive narrative. Digital illustrations could focus on the basics of drawing and painting using digital tools when kids think about their story and their characters while digital animation would focus on movement. Each of those would also involve different tools and extensions such as tablets to facilitate the technical aspects of manipulation for creative purposes. Another essential element of digital design is typography where young designers would be introduced to typographical terminology such as fonts, font families, size, kerning, leading, text and so on and explore the different meanings attached to the visuality of the text in the final project. In the end, we think that such workshops need to be situated within other ongoing design activities in order to give them a purpose and context because the goal of design media arts is to enrich and expand the young designers' sensibilities for greater creative expressiveness in their work. This last aspect is of particular relevance in low-income communities where youth are often perceived as promoting new uses of popular media but are standing on the sidelines when it comes to developing new technologies.

Acknowledgements

Special thanks to Jay Yan, Pinar Yoldas, Tyler Adams and Casey Alt for coming for formulating the ideas and carrying out the workshops presented in this paper. The work reported in this paper was supported by grants of the UCLA Center for Community Partnerships and the National Science Foundation (NSF-0325828) to the second author in collaboration with Mitchel Resnick's research group at the MIT Media Lab. The views expressed are those of the authors

and do not necessarily represent the views of the supporting funding agencies or the University of California, Los Angeles.

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Welcome to the 7th Conference on Interaction Design for Children

Each day, we interact with hundreds of technological devices that help us organize our lives, achieve our goals, and indulge in our passions. For children today, technology is especially pervasive in all aspects of life. They learn and play using computers and other technological devices; as they grow, they build and maintain friendships using computers and mobile phones; they interact with one another virtually; and even find critical interpersonal support and therapy using computers, the internet and other technology-enhanced products.

Given the ubiquity of technology in children's lives, it is surprising that so few venues bring together those who are concerned with designing the technologies and the interactions with technology that are so important to children's lives. For this reason, [IDC 2008](#) brought together, in the diverse city of **Chicago**, an international community of researchers, educators, and industry professionals concerned with interaction design for children, in order to **think outside the toy-box**.

The goals of the 2008 conference were to better understand children's needs, and how to design for them, by presenting and discussing the most innovative research in the field of interaction design for children, by exhibiting the most recent developments in design and design methodologies, and by gathering the leading minds in the field of interaction design for children - all in one place.

It is time to stop thinking of computers as the primary locus of technological design - this year we invited researchers to submit work on everything from cell phones to smart nail polish, from infant programming tools to technological design competitions for teens, and the papers we received reflected this diversification of technology for young people. It is also time to stop thinking of "children" as a homogeneous group - this year we hosted workshops for researchers [designing for children with special needs](#), and concerning [interaction design for marginalized young people](#), and we hosted a [doctoral consortium](#) for promising younger scholars. Invited panels on [Screen Cultures](#) and on [Bridging the Gap between Theory and Practice](#) addressed over-arching issues in the field, and a [keynote](#) by Dr. Charlotte Cole of Sesame Workshop spoke to issues of globalization and localization. Finally, this year we invited researchers to step outside the domains of learning and play, and to consider designing for civic involvement, for democracy, and for physical well-being, and the papers in this volume reflect this diversification of applications for technology for young people.

Enjoy the [papers](#), [posters and demos](#), and [doctoral consortium](#) submissions in this volume. We hope that your own work will be inspired by them.

Justine Cassell
Conference Chair, [Northwestern University](#)

This conference builds on the successes and high standards of the previous IDC conferences ([IDC 2007](#) in Aalborg, Denmark, [IDC 2006](#) in Tampere, Finland, [IDC 2005](#) in Boulder, USA, [IDC 2004](#) in Maryland, USA, [IDC 2003](#) in Preston, UK and [IDC 2002](#) in Eindhoven, the Netherlands).



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ACM was established in 1947 with the creation of the first stored-program digital computer and today carries out its mission through conferences, publications, educational programs, public awareness activities, and special interest groups. It sponsors over 120 conferences annually and its more than 82,000 members come from industry, academia and government institutions around the world. ACM hosts the computing industry's leading Digital Library and Guide to Computing Literature, and serves its global members and the computing profession with journals and magazines, conferences, workshops, electronic forums, and Online Books and Courses. The A.M. Turing Award, presented yearly by ACM, is regarded as the "Nobel Prize of computing."

"Chicago Skyline" photograph by [Asten Rathbun](#)

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Conference at a Glance

Tuesday

Tuesday, June 10, 2008	
18:30	Dinner for Pre-conference workshops

Wednesday

Wednesday, June 11, 2008: Pre-conference Workshops			
8:30-12:30	Doctoral Consortium	Workshop: Children with Special Needs	
10:30-11:00		Coffee break	
11:00-12:30	Doctoral Consortium	Special Needs	
12:30-13:30	Lunch		
13:30-15:00	Doctoral Consortium	Special Needs	Workshop: Marginalized Young People
15:30-16:00	Coffee break		
16:00-17:00	Doctoral Consortium	Special Needs	Marginalized Young People
MAIN CONFERENCE BEGINS			
17:00	Shuttle to opening reception at Chicago Children's Museum		
18:00	Keynote Address: Dr. Charlotte Cole		
	Dinner, Dessert and Fireworks: Chicago Children's Museum		

Thursday

Thursday, June 12, 2008	
9:00-10:30	Panel — Bridging the Gap Edith Ackermann (MIT), Kathleen Alfano (Fisher Price), Erik Strommen (Playful Efforts), Scott Traylor (360KID), with commentary by Michael Levine (Joan Ganz Cooney Center for Children's Media and Research)
10:30-11:00	Coffee break
11:00-12:30	Children As Designers Broadening Children's Involvement as Design Partners (Garzotto) Comparing the Creativity of Children's Design Solutions Based on Expert Assessment (Thang, Sluis-Thiescheffer, Bekker, Eggen) A Modeling Tool to Support Children Making Their Ideas Work (Katterfeldt, Schelhowe)

12:30-14:00	Lunch
	Math and Science Learning
	Creating Mathematical Artifacts (Lamberty)
14:00-15:30	Embodying Scientific Concepts in the Physical Space of the Classroom (Malcolm, Moher, Bhatt, Uphoff, Lopez-Silva)
	Tangible Programming and Informal Science Learning (Horn, Solovey, Jacob)
15:30-17:30	Wine Reception: Posters and demos
17:30	Shuttle for evening program
18:45-22:00	Summer of George cruise ship in Chicago + dinner + blues concert with Lil' Ed and the Blues Imperials

Friday

Friday, June 13, 2008	
	Panel — Screen Cultures
9:00-10:30	James Paul Gee (Arizona State University), Dan Anderson (University of Massachusetts, Amherst), Bill Shribman (WGBH), with commentary by Lisa Guernsey (Education and Technology Writer)
10:30-11:00	Coffee break
	Tangible and Tactile Technologies
	Tangicons (Scharf, Winkler, Michael)
11:00-12:30	Key Issues for the Successful Design of an Intelligent, Interactive Playground (Sturm, Bekker, Groenendaal, Wesselink, Eggen)
	Huggy Pajama (Teh, Cheok, Peiris, Choi, Thuong, Lai, Chin)
12:30-14:00	Lunch
	New Interaction Technologies
	PointAssist (Hourcade, Perry, Sharma)
14:00-15:30	Playing with the Sound Maker (Ante, Droumeva, Corness)
	Escape Machine (Weller, Do, Gross)
15:30-16:00	Coffee break
	Special Populations
	Breaking the Sound Barrier (Huang, Jones, Smith, Spreen)
16:00-17:00	How Children's Individual Needs Challenge the Design of Educational Robotics (Virnes, Karna-Lin, Sutinen)
17:00-18:30	Ice cream reception: Posters and demos

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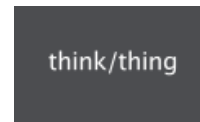
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Keynote Address

Dr. Charlotte Cole, VP for International Education, Research and Outreach, Sesame Street Workshop

June 11, 2008 at the Chicago Children's Museum Opening Reception



The World's Longest Street: How *Sesame Street* is Working to Meet a Diversity of Children's Needs Across the Globe

For nearly four decades, Sesame Workshop has brought the joy of learning to the world's youngest citizens through locally-produced co-productions of the preschool television series, *Sesame Street*. With their own puppet characters and sets, these multi-media projects are specifically designed to forward educational messages that reflect the cultural, linguistic and developmental contexts of the children making up their various audiences. This address will describe the process by which these adaptations are developed in-country by local production teams and will highlight examples of content from some of the nearly thirty indigenously produced versions of *Sesame Street's* television, radio,

on-line and other media projects. The challenges of providing a diverse array of educational messages - from gender equity in Egypt, to HIV/AIDS education in South Africa - will be at the heart of the presentation. The talk will conclude with an outline of what research says about the impact of *Sesame Street's* international work.

Dr. Cole, Vice President for International Education, Research and Outreach, oversees the research, curriculum development and community outreach for Sesame Workshop's international co-productions, including adaptations of the well-known pre-school program, *Sesame Street*. Working with educators and production teams throughout the world, she has most recently been engaged in projects in Bangladesh, Colombia, Egypt, India, Indonesia, Israel, Jordan, Mexico, Northern Ireland, Russia, South Africa and West Bank/Gaza. Prior to joining the Workshop, Dr. Cole worked as a Senior Researcher at Joslin Diabetes Center in Boston on a longitudinal study of families of children with acute and chronic illness funded by the National Institutes of Health. She has also served as a consultant to the Harvard Institute for International Development on several child-health projects in Thailand. Dr. Cole received her doctorate in Human Development and Psychology from the Harvard Graduate School of Education at Harvard University. Her teaching experience includes instructor positions at Boston College, Lesley College and Saint Mary-of-the-Woods College. She also works as the Review and Commentary Editor of the Journal of Children and Media.

For more information on Dr. Cole, please visit her [website](#).

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IDC 2008 - Panels

[Bridging the Gap](#)

Thursday, June 12, 2008
9:00-10:30am

[Screen Cultures](#)

Friday, June 13, 2008
9:00-10:30am

Panel — Research, Design, Development: Bridging the Gap

[Thursday, June 12, 2008 from 9:00-10:30am](#)

[Edith Ackermann, MIT](#)
[Kathleen Alfano, Fisher Price](#)
[Erik Strommen, Playful Efforts](#)
[Scott Traylor, 360KID](#)
[Michael Levine, Joan Ganz Cooney Center for Children's Media and Research](#)

What happens as scientists, 'creatives', developers, and sales people team up to bring a vision to the market, and from the market, or store, into children's homes and lives? Well, too often, concepts get lost along the way and toys end up in the trash bin! This panel tackles honest questions from perplexed researchers [usually trained in academia] who would like to reach a broader audience, and effect real change in the world, but who are faced with the dictates of industry [usually market-oriented] and the spur of the moment insights of designers [usually trained in liberal arts]. Panelists will identify bottlenecks, unveil paradoxes, and propose winning strategies for both sides to move beyond business as usual. Experienced researchers and practitioners across the divide, panelists tell their tale in the form of short personal cases.

Edith Ackermann - Massachusetts Institute of Technology



Toys To Fall For or Live With? Children's Attachments to Artifacts tackles some of the paradoxes generated by "instant" consumer satisfaction approaches, including cognitive studies, and advocates a developmental approach to studying how a child's relation with artifacts evolves over time (I grow with my toys, and my toys grow with me).

Edith K. Ackermann is an Honorary Professor of Psychology at the University of Aix- Marseille 1, France, and a Visiting Scientist at the Massachusetts Institute of Technology School of Architecture. She teaches graduate students, conducts research, and consults for companies, institutions, and organizations interested in the intersections between learning, teaching, design, and digital technologies. Previously, Ackermann was an Associate Professor of Media Arts and Sciences at the

MIT Media laboratory, in Cambridge, MA; a Senior Research Scientist at MERL Mitsubishi Electric Research Laboratory, Cambridge, MA; and a Scientific Collaborator at the Centre International d'Epistémologie Génétique, under the direction of Jean Piaget, in Geneva. She received a Doctor of Developmental Psychology [Cum Laude] (1981); two Master's degrees in Developmental Psychology and Clinical Psychology (1970); and a Bachelor of Experimental Psychology degree (1969), all from the University of Geneva, Switzerland.

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Kathleen Alfano - Fisher Price



What Works, What Doesn't, and/or How to Make It Work?

Industry collaborates with developmental experts to gain a deeper understanding and broader perspective of how particular toys, or products, can meet desired developmental goals. Experts' evaluations are valued and recommendations taken seriously. However the collaboration doesn't always result in a magical toy that is brought to market and sells millions. This talk describes some successful and some not-too-successful collaborations and suggest best practices for successful ones.

Kathleen Alfano joined Fisher-Price, Inc., of East Aurora, New York, as an educator and researcher for the Child Research Department in 1979. Since then she has developed, what is now called, the Play Laboratory into the toy industry's most respected (and emulated) center for research on childhood development and play. Ms. Alfano holds several degrees in elementary education: a Bachelor's degree from Rosary Hill College, a Master's degree from State University College at Buffalo and a Doctorate degree from the State University of New York at Buffalo, as well as a Master's degree in business administration from Niagara University. Among professional affiliations are: the International Toy Researchers Association, Human Factors and Ergonomics Society, National Association for the Education of Young Children, Association for Childhood Education International, Association for Supervision and Curriculum Development, International Reading Association and others.

In her role as senior director of the Child Research Department, Ms. Alfano provides child development expertise and formative evaluation for Fisher-Price toys, products and interactive media, including the content of learning toys, books, CD ROMs, videos and DVDs. In addition to directing the Fisher-Price Play Laboratory, Ms. Alfano has provided consultative services with

regard to child development for organizations such as the Toy Industry Association and the Consumer Product Safety Commission.

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Erik Strommen - Playful Efforts



Testing Interfaces that Do Not Exist tackles the problem of tight timelines, and not being able to do research on products in development. Erik Strommen, Ph.D., is President of Playful Efforts, an interactive media research and design consulting company. A Developmental Psychologist by training, he spent seven years as Research Director in Interactive Technologies at Children's Television Workshop designing and studying interactive learning products for children of various ages on almost every interactive platform available. In 1996, he joined Microsoft to serve as lead designer for Interactive Barney, the first animated interactive plush character for children, and for subsequent interactive character interfaces as well. Since 2000, he has been a private consultant advising toy companies on ways to use principles of play and learning development in the design of interactive toys. He has published research and theoretical papers on a wide range of interfaces for children, from speech recognition to electronic drawing pads. Visit www.playfulefforts.com.

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Scott Traylor - 360KID



Rethinking Product Research When Time Is On Your Side, but Funds Are Not!

This is the story of how a technology without a specific audience or guiding research was influenced by exploiting the uniqueness of the technology coupled with child research that influenced prototype development. My company has been working on a unique character recognition technology for preschoolers for many years now. It's a pet project that has not gone to market but keeps getting improved upon.

Scott Traylor, is the CEO, Founder and Chief KID of 360KID, a kid-focused entertainment and technology company dedicated to creating engaging technology products for kids. 360KID provides turnkey development services to the broadcast, cable, publishing, and toy industries. Scott started his business over 16 years ago. His company has emerged as a recognized leader in the development of fun and engaging technology products. 360KID clients include Sesame Workshop, LeapFrog, Pokémon, Discovery, Hasbro, Girl Scouts, Scholastic and many others. 360KID has won or been nominated for over 34 different learning and entertainment awards including three Emmy nominations. Scott is continually reading, analyzing, and synthesizing research covering all aspects of child engagement including new technologies, social networking, informal learning, gaming, and different consumer-based delivery systems. He's fascinated by electronic learning aids and technology instruction that is non-PC based. Scott has also been a computer science teacher for 12 years at Harvard University's Extension School. Scott believes nothing is impossible and so he pushes to make big dreams a reality, especially when it benefits children of any age. Visit <http://www.360KID.com>.

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Respondent, Michael Levine - Joan Ganz Cooney Center for Children's Media and Research



Dr. Levine oversees the Joan Ganz Cooney Center for Children's Media and Research efforts to catalyze and support research, innovation and investment in educational media technologies for young children. Prior to joining the Center, Dr. Levine served as Vice President of New Media and Executive Director of Education for Asia Society, managing the global nonprofit organization's interactive media and educational initiatives to promote knowledge and understanding of Asia and other world regions, languages and cultures. Previously, Dr. Levine oversaw Carnegie Corporation of New York's groundbreaking work in early childhood development, educational media and primary grades reform, and was a senior advisor to the New York City Schools Chancellor, where he directed dropout prevention, afterschool and early childhood initiatives. Dr. Levine has been a frequent adviser to the U.S. Department of Education and the Corporation for Public Broadcasting, writes for public affairs journals, and appears frequently in the media. He was named by Working Mother magazine as one of America's most influential leaders in shaping family and children's policy and serves on numerous nonprofit boards, including We Are Family Foundation, Ready To Learn, Talaris Institute and Teach For America. Levine is also currently a senior associate at the Edward Zigler Center in Child Development and Social Policy at Yale University. He received his Ph.D. in Social Policy from Brandeis University's Florence Heller School and his B.S. from Cornell University.

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Panel — Screen Cultures

Friday, June 13, 2008 from 9:00-10:30am

[James Paul Gee, Arizona State University](#)
[Dan Anderson, University of Massachusetts, Amherst](#)
[Bill Shribman, WGBH](#)
[Lisa Guernsey, Education and Technology Writer](#)

Consider the "screen" as children see and interact with it today. Is it serving primarily as a window onto "pretend" or untouchable worlds? Does it serve mostly as an animated version of another artifact of children's lives—the book? Or is it becoming an interactive and conversational outlet, a mashup of phone and camera? In either case, under what conditions does the screen become a trigger—or trampoline—for play and creative thought? How and when do children find the most delight in interacting with a screen? And when does the screen get in the way? These are the questions that scamper through the heads of those who observe

children using screen media today— whether medium is a television program, a video game, a handheld device or some screen yet to be invented. While research on children's interaction with the television screen and the videogame screen have both been around for quite some time, very little of the research in these two fields ever crosses over to the other side. In this panel, we'll put the two together, with implications for those who develop new screens and windows onto new virtual worlds. By bringing together renowned scholars in television research and videogame research with an innovative producer who has worked in both media, the panel affords the rare opportunity to make connections between the worlds of videogame and television design, and to think what these two established fields have to tell those who conduct interaction design for children. In this way, we can best consider how children think about and interact with the screens in their lives.

James Paul Gee - Arizona State University



What's a Screen Mean in a Video Game?

Video games are not "screen based" activities in the sense in which television and movie watching are. In fact, for reasons I will discuss, players are actually, in a sense, both inside and outside the screen. This allows for the development of what I have called "projective identities", as well as a variety of other effects that cause video games to be interactive and to engage learning in different ways than do television, movies, or books, for that matter. In addition, these differences mean, as well, that narrative works differently in video games than it does in television, movies, and books. However, not all video games work in the way I will describe and, thus, there is not, as far as I am concerned, a general theory of video games, let alone screens.

James Paul Gee is the Mary Lou Fulton Presidential Professor of Literacy Studies at Arizona State University. He is a member of the National Academy of Education. His book *Sociolinguistics and Literacies* was one of the founding documents in the formation of the "New Literacy Studies", an interdisciplinary field devoted to studying language, learning, and literacy in an integrated way in the full range of their cognitive, social, and cultural contexts. His book *An Introduction to Discourse Analysis* brings together his work on a methodology for studying communication in its cultural settings, an approach that has been widely influential over the last two decades. His most recent books *What Video Games Have to Teach Us About Learning and Literacy* and *Situated Language and Learning* both deal with video games, language, and learning. Gee recently published *Good Video Games and Good Learning: Collected Essays*. Prof. Gee has published widely in journals in linguistics, psychology, the social sciences, and education.

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Dan Anderson - University of Massachusetts, Amherst



Dan Anderson's research focuses on children and television, particularly the cognitive and educational aspects. Anderson is widely published, and his work concerns attention, comprehension, viewing behavior, and the long term impact of television on development. His current research includes toddler understanding of television, and the effects of adult background television on infant and toddler behavior. Anderson was involved in the creation of children's television series including *Allegra's Window*, *Gullah Gullah Island*, *Bear in the Big Blue House*, *Blue's Clues*, and *Dora the Explorer*. He has also acted as an advisor to *Captain Kangaroo*, *The Wubbulous World of Dr. Seuss*, *Sesame Street*, *Fimbles*, *Go, Diego, Go!*, *It's a Big Big World* and *Super Why!*. His research is supported by grants from the National Science Foundation.

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Bill Shribman - WGBH



Thinking Inside the Box: Tales from the trenches

Bill Shribman explores some of the key considerations in creating educational content in a lean-back/lean-forward world. TV and computer involve very different kinds of interaction, so how can producers best play to the strengths of each medium? Bill discusses how his team tries to find the right balance between Sticky and Meaningful in making kids' content for the Interweb.

Bill Shribman is the Executive Producer of WGBH's Interactive Kids Group and oversees all WGBH kids' projects, including those in development, for Web and new platforms. Previously he spent 10 years working in video post production companies in both London and Seattle. At WGBH he has produced the internationally recognized sites for Curious George, ZOOM, PEEP and the Big Wide World, Time Warp Trio, and Between the Lions. He is also a content producer and games designer for the Fetch, Martha Speaks, Arthur, and Postcards from Buster sites. Traffic to these sites amounts to more than 10 million visitors every month. He devised and produced the Fin, Fur and Feather Bureau of Investigation at FFFBI.com and is also the creator of WGBH's broadband animated series, The GREENS. His writing for the Between the Lions television series was EMMY-nominated in 2006. He is currently the P.I. and lead producer on a U.S. Department of Education Steppingstones of Technology grant, devising games to help kids with ADHD.

Under Bill Shribman, the WGBH Interactive Kids group has received numerous accolades, including New Media INVISION Awards (Gold and Silver), three Webby nominations, MIMC Gold, Parents Choice Gold, the Flagstaff Arizona Worldfest Silver, the Eddie Award, NAPPA Gold, Japan Prize Silver, MITX Best of Show, and the first Prix Jeunesse awarded to a Web site.

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Respondent, Lisa Guernsey - Education and Technology Writer



Screen Cultures: Cross-Pollination between Videogame and Television Research.

Lisa Guernsey is an education, science and technology writer who has contributed to *The New York Times*, *The Washington Post*, *The Chronicle of Higher Education*, *Consumer Reports*, and other publications. Her most recent book is *Into the Minds of Babies: How Screen Time Affects Children From Birth to Age 5*. She also maintains a blog called *Media Minds* and writes a quarterly newsletter about new research findings on media and children. Both can be found at www.lisaguernsey.com.



She resides in Alexandria, Va., with her husband, their two preschool-age daughters, two cats and a dog.

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