



**Friday 23rd February 2007**

**Venue: SMART lab: MAGIC Research Group, University of East London.**

Overview of The SMARTlab  
Professor Lizbeth Goodman

## **The SMARTlab Mission**

The SMARTlab Mission - is to provide a world class research and incubation space for academic staff, practice-based PhD students and interdisciplinary teams of artists and technologists/scholars, community workers and industry representatives, working together to create and test the efficacy of new media and informatics tools designed for a 'universal design' ethos.

## **About the SMARTlab Digital Media Institute**

The SMARTlab Digital Media Institute (for site specific Media, performing and digital arts) brings media artists, performers, technologists, scholars, business and e-commerce specialists, engineers, medical experts, and policy makers to sites around the world where their combined skills can make a real difference for communities, both locally and globally.

The SMARTlab has operated -with a number of partners, from a number of bases internationally- since 1991. The new home base in bespoke studios at the University of East London (in the heart of the Docklands) offers an ideal setting for creative exchange, both nationally and globally.

The SMARTlab has recently spread its wings to fill its new purpose built studios, including the MAGIC (Multimedia & Games Innovation Centre) PLAYroom, incubation and training spaces with linked fabrication, simulation, and product design facilities, and a partner institute providing a high-definition multistream film/video facility all on site.

For the past five years, the SMARTlab has gained recognition as one of the world's leading Practice-based PhD Programmes, and is viewed as an incubator for the next generation of talent and high-level scholarship in the 'ArtSci' domain.

The new base heralds a move to link more formally with the local community and an opportunity to partner with organisations around the Docklands, and across the UK. Since making the move to UEL, the SMARTlab has already run two major week-long seminar events, which have attracted many international speakers and Creative Industry representatives. Formal lecture programmes and community outreach projects are in process. Local and international organisations are invited to contact us to participate.

[www.smartlab.uk.com](http://www.smartlab.uk.com)  
[www.uel.ac.uk](http://www.uel.ac.uk)  
[www.buzznet.net](http://www.buzznet.net)

## 1. The Activities

The SMARTlab is a Digital Media & Creative Technology Innovation Centre with three distinct threads of activity:

a practice-based PhD programme and research centre for artists and technologists working in artistic domains, who have long encountered difficulties in placing their work in relation to the academy: in finding appropriate ways to 'measure' artistic practice in 'research exercises', in identifying appropriately flexible and experimental forms for artistic research processes and outcomes, and in competing for academic funding;

a suite of community outreach and digital inclusion projects around e-inclusion and design for ability, assistive technology, IT for women and girls, and educational inclusivity;

a knowledge transfer centre and Gamelab/playroom that operates as a space where local communities can join forces with UEL academics, artists, technologists and game designers to make and test games and interactive tools.

The SMARTlab holds a 'universal design' concept at heart: by designing for the segments of society whose interests and needs are least served by 'off the shelf' technologies- e.g. women, young people at risk, and people with (extreme) disabilities - we aim to create socially inclusive, sustainable projects and products of use to ALL.

The SMARTlab team holds a strong collaborative ethos in its work and includes live artists, performers, dance and movement specialists, visual artists, filmmakers, photographers, sculptors, textile experts, fashion designers, poets/writers, composers/ musicians, sound artists, VR engineers, programmers, game and interface designers, and e-business specialists who design for sustainable development, social change and community well-being.

## 2. The Ethos



SMARTlab's ethos is simple: every project is intimately grounded in a community, culture or research environment. The team spends the time to get to know the local people, issues, concerns and needs before involving the larger group of experts, which may include artists, computer scientists, medical and social care professionals, educators, and scholars. The larger, integrated cohort then develops new technology tools with real social impact, whether for individuals, for groups, or for wider international aims.

The SMARTlab selects projects and teams on the basis of ethical concerns, social engagement and the ability to work effectively in interdisciplinary groups, as well as for the originality and potential

impact of the research, in basic and applied terms.

In every context, the aim is to effect knowledge transfer within the team, between the teams and local communities, and in broader academic and industry relations.

## 3. The Communities



The SMARTlab works in communities, the three primary target groups are women, children & young people, and people with disabilities.

Nationally and internationally the SMARTlab works off-site but in situ: in women's shelters, schools, hospitals, rehabilitation centres, and also travels to meet and ideate with its partners in universities, industry think-tank settings and retreats.

Locally there is a new 'home' studio and 'playroom' at UEL, with sister sites in operation (and accessible via telematic stream) in New York, Boston, Atlanta, Los Angeles, Montreal, Vancouver, Amsterdam, Fes, Marrakech, Alibag, Mumbai, et al.

The SMARTlab is acknowledged for its community work and this is reflected in its funding. Support comes from a variety of sources, many of which are listed below.

This includes the not-for-profit company, Safespaces.net, recognised as a best practice model for community engagement in creative technology innovation by the US government and by partners at the U.N., World Bank, Microsoft, the BBC, NESTA, the Carl Sagan Trust, The Wellcome Trust, The Gulbenkian Trust, LEGO Europe, and many other past and present partners.



#### 4. The Method

Projects are designed to meet the needs of those communities or social groups least represented or supported by 'off the shelf' technology tools for education, communication, skills training and/or artistic and social empowerment.

### MAGIC: SMARTlab has created a PLAYroom!



MAGIC is a creative space. It sits at the heart of SMARTlab, a research centre whose mission is to produce scholarship that becomes an international point of reference for the digital media field.

MAGIC, which has been funded by the Higher Education Innovation Fund (HEIF2), will apply this research to 'real world' problems. Working with colleagues here in UEL's Knowledge Dock, we plan to develop MAGIC into a dynamic interface between UEL, business and the wider community.

MAGIC aims to:

act as an intellectual hub, offering researchers a 'third' space where they can interact with each other, with the private sector, and with policy makers, to explore the shape of our digital future

provide an innovative way of connecting with communities, using the new generation of pervasive, cheap or free, 'citizens' technologies that are an increasingly powerful tool for social change

enable experimentation with new business models, as a maturing field reaches its commercial potential and creates fresh opportunities for economic and social development.

## SMARTlab Research Team and Staff



The SMARTlab team operates across genres, disciplinary and cultural boundaries. It aims to create ethically and socially responsible media, art works, and to inform the next generation of artist-made technology tools. The team holds a 'universal design' concept at heart: designing for the segments of society whose interests and needs are least served by 'off the shelf' technologies. The aim is to create projects that will stimulate further development and new markets.

The SMARTlab team includes live artists, performers, dance and movement specialists, visual artists, filmmakers, photographers, sculptors, textile experts, fashion designers, poets/writers, composers/musicians, sound artists, VR engineers, programmers, game designers, interface designers, urban planners, architects, policy analysts, and specialists in e-business. All the work is collaborative and enables sustainable development, social change and community well-being.

### Director: Professor Lizbeth Goodman



Lizbeth Goodman is Director of the SMARTlab Digital Media Institute and Magic Gamelab at UEL. She is also Director of Studies for the UEL practice-based PhD programme in Digital Media & Informatics: a cohort of 32 professional new media artists and engineers conducting collaborative research into the transdisciplinary fields of technology development and art, e-health, e-inclusion, haptics and 'artsci'. Her main field of speciality is the creation of learning games developed WITH, not only for, people with disabilities and 'non-standard gamers'.

Lizbeth was previously founder and Director of the SMARTlab Centre at Central Saint Martins College of Art & Design (2001-5). In an earlier incarnation, she founded and led the INMPR (Institute for New Media Performance Research) at the University of Surrey, following on from eight years leading the BBC Open University's multimedia research teams in Shakespeare, Drama, Gender Studies and Literature. She has worked extensively for the BBC as a researcher, writer and presenter of Learning and Arts/Media: some of her pioneering work in multimedia perspective-driven drama and theatre games won awards and sold as 'bestsellers' through Routledge and BBC Worldwide in the 1990s. She is also a regular reviewer/validator for many independent courses, publishers and broadcasters, and for major funding bodies and award panels internationally.

Lizbeth is the author and editor of some 13 books including a range of titles on best practices in media and technology tools creation, the implementation of live and online theatre games, women and theatre, the arts, representation and creativity. She has also written and produced many educational convergent media packages, including CD ROMs and video/media packs, games, and online performance events, including the Extended Body Project. She was PI of the successful SMARTshell Project (creating innovative tools for synchronous and asynchronous online/integrated performance and learning), and of the Virtual Interactive Puppetry Project, the British Council's Cultural and Media Studies development programmes in North Africa, and the European Commission's RADICAL project (Research Agendas Developed in Creative Arts Labs). She is currently heading up the networking project - the BUILDnetwork - for the Building Sustainable Communities Project run by UCL with UEL, and is advising on Framework VII funds for Art/Science. She is Chair of the Wellcome Trust's SciArt Panel, and regular judge of international art/science/technology panels. For NESTA, she is Exec Director of the Legacy Projects in Learning and in the Fellowship Programme for Technological Innovation.



Lizbeth founded the Trust Project in 2001 and has helped it to grow and find sponsorship (with BBC R&D, Singapore Gamelab, NYU, The Carl Sagan Trust and Children's Health Fund, NESTA, et al) in many cultures over the years. She works with an international team and with Dr Brian Duffy, who is co-PI for the haptic and robotic/assistive technology components of that worldwide Children's health and rehabilitation game project. She is Founder and President of the SafetyNET project, which seeks to eliminate the impact of domestic violence globally. Safespaces.net using new technology ltd is the 501c3 organisation based in New York, which hosts the SafetyNET Project and its related charitable and community outreach activities. She is currently the editor of the new MIT Press series: Emergenc(i)es, focusing on best practices and future inventions in technology serving education and culture. One of the first titles, due out in Spring 2007, is a review of the Microsoft Clubtech Project on game innovation for underprivileged young people- by Lizbeth Goodman and Akhtar Badshah (Sr Director Community Affairs, Microsoft).

Professor Goodman won the Lifetime Achievement Award for volunteer service to women and children in 2003, and has just been named Microsoft Community Affairs Senior Research Fellow in Creative Technology Innovation.

## MANAGEMENT TEAM

### Director of Operations & Development: Clilly Castiglia



Clilly has worked with SMARTlab on a collaborative basis for four years, and joined us full time in London in October 2006. Before Joining SMARTlab, Clilly Castiglia was the Senior Vice President and CoFounder of Technology Developers LLC. Her role is to oversee the Design and Production of new technology and experience based projects. Prior to starting this company she was the Director of Operations and Development at The NYU Center for Advanced Technology/NYU Media Research Lab. There she managed the development of technologies in the areas of collaborative tools and environments, new interfaces and input methods for wireless and handheld devices, Tangible media, High-end Graphics and Real-time animation. As an Associate Researcher at the SMARTlab UK she was involved in the VIP project (Virtual Interactive Puppetry) A system which allows live performers and Virtual Puppets to work and perform remotely and in 3D.

### Peoplelab Manager: Jose Martinez



José will lead the PeopleLab for MAGIC's community prototyping and games unit. He has more than 10 years of experience combining technical expertise, a passion for innovation, and business savvy. Currently, Jose is working in collaboration at the MIT Center of Bits and Atoms/SETC Fablab in Boston, MA. As Tech Director for SafetyNET, José is inventing embedded wireless systems for survivors of domestic violence in developing countries (through the JET System). His Mobile Monkeys/Flow Lab project creates physical alternate reality games that utilise sensors, RFID, Wi-Fi, and Bluetooth technologies. He is also conducting PhD research into the community modeling and coding of Personal Fabrication units for people and communities in need.

### Strategy & Business Manager: David Steven



Responsible for SMARTlab's business planning and development strategy in our Creative Industries wing, David is a policy consultant, researcher and journalist. He is Managing Director of the knowledge consultancy, River Path Associates ([www.riverpath.com](http://www.riverpath.com)). He was editor of Daily Summit ([www.dailysummit.net](http://www.dailysummit.net)), live from the World Summits in 2002 and 2003. More recently, he was editor of World Bank President ([www.worldbankpresident.org](http://www.worldbankpresident.org)). He is a founder member of the Low Level Panel on UN Reform and has just launched the Panel's new website His research - principally on policy issues facing developing countries - has been published by a number of leading journals and publishers.

### Community Development & Outreach Manager: Sheila Robinson



Managing our cluster of NESTA Legacy Projects in Learning and Technological Innovation, and more broadly as the SMARTlab manager for 'third sector' projects, Sheila Robinson specialises in support for business development, particularly in digital industries. She is working internationally as a business advisor. And is working with

various software and technical systems to deliver best practice business support online and face-to-face. She is on the advisory Board for Banff New Media Institute and studying for a PhD on best practice business development environments with SMARTlab. She was appointed Chair of the Board of SafetyNET in March 2006.

#### Buzznet Project Manager: Babak Davarpana



#### Babak Davarpanah Varnosefadarani



Babak Davarpanah Varnosefadarani (Babak) is an international consultant with many years of experience working for World Bank, UNDP, and other agencies in Middle East, Central Asia and China, as well communities in London docklands. As an economist / urban and regional planner (Architectural Association) he has evaluated the socio/economic impact of local environmental initiatives and has developed national urban upgrading programmes. His prime focus is to help develop sustainable local economic development strategies through participatory planning and partnership, with particular interest in main streaming cross cutting issues such as gender, minority rights and information and communication technologies. He has taught, English business communication in Paris and China and alternative urban planning in UK and abroad. His current research focus is bridging knowledge and digital gaps, through innovatory interdisciplinary community based activities. He will manage the BuzznNET Project for the Urban Buzz/Building Sustainable Communities programme.

## SENIOR FACULTY

#### Dr Akhtar Badshah

Senior Research Fellow in Information Technology for Development  
(& Senior Director, Microsoft Community Affairs)

Akhtar Badshah joined forces with the SMARTlab team on their 'third sector' work with NGOS and with international ITCSD projects years ago. His formative work with the Digital Partners Foundation, and with its landmark Global Classmates project – which was an inspiration to our team. He became senior director of Microsoft Community Affairs several years ago, where he administers the company's global community investment and employee programs. Among his responsibilities, Dr. Badshah manages Microsoft Unlimited Potential (UP), a global program to promote digital inclusion and increased access to technology skills training in underserved communities.

Dr. Badshah also oversees programs aimed at improving technology access and helping nonprofit organizations improve their effectiveness through increased technology capacity. This includes

Microsoft's signature relationships with organizations such as Boys & Girls Clubs of America and NPower. Dr. Badshah is a Board Member of the Global Knowledge Partnership and The Indus Entrepreneurs. He also serves on the Advisory Boards of the following organizations: World Affairs Council, Santa Clara University Center for Science Technology and Society, University of Washington South Asia Center, and University of Washington Business School. He has co-edited "Connected for Development – Information Kiosks for Sustainability," and authored "Our Urban Future: New Paradigms for Equity and Sustainability" and several articles in international journals on ICT4D, megacities and sustainability, urban and community development, and housing.

Dr Badshah holds a PhD from MIT and is the former president of the Lambda Alpha International New Jersey Chapter, an honorary land economic society. SMARTlab is honoured to have him working with us on our Senior Faculty in 2007, as we work together on joint projects.

### Dr Mick Donegan



Dr Mick Donegan is the new Senior Research Fellow in Multimodal Interfaces, and the head of a new research group on Interfaces for Assistive Technology & Creativity at the SMARTlab. He has been working closely with James Brosnan, Lizbeth Goodman, Toby Borland and the London and Dublin INTERFACE teams to investigate the most appropriate, functional and aesthetically/emotionally empowering communication forms with and for people with disabilities.

Mick has long held the post of Deputy Director of the ACE Centre, Oxford ([www.ace-centre.org.uk](http://www.ace-centre.org.uk)): a specialist centre for technology to support communication and education for people with severe communication difficulties. He went to The ACE Centre following his responsibility as IT Co-ordinator and Deputy Head Teacher at Wilson Stuart Special School, one of the country's largest special schools for physically disabled children in the UK.

He is a leader in two major research projects: COGAIN, a European Network of Excellence ([www.cogain.org](http://www.cogain.org)). Mick is Co-coordinator of the Workpackage relating to 'User Requirements'.

GameON, an award-winning project that is setting up a website to help people with disabilities to find out about accessible gaming. (Site under development - <http://gameon.onestopcms.co.uk>).

Mick's particular technology and disability-related interests/passions include Speech Recognition, Access to Video Games and Leisure Software, Eye Controlled Technology and Remote Support Technology - areas in which he has specialised over an extended period of time. He has been involved in several highly regarded and influential projects, such as the DfES/Becta sponsored Speech Recognition Project (completed 2000), Telenet (completed 2002) which examined the use of remote support technology for people with severe disabilities and 'DECO' (completed 2006) a joint project with the Physics Department of Cambridge University to make 'Dasher' 'eye control friendly'. He has published widely and won many awards for his work. In 2006 he was awarded a PhD for a longitudinal study investigating the conditions for success in using assistive technology for people with physical disabilities in mainstream education.

### Dr Leslie Hill



Leslie is Principal Research Fellow in Performance Technologies with SMARTlab, and our co-Director of Studies for the Practice-based PhD Programme. She is also Director of Curious. Curious was formed in 1996 and has produced over 30 projects, which have been shown and exhibited widely by such venues as the Sydney Opera House, the British Council Showcase at the Edinburgh Festival and Artist Links, Shanghai. Company directors Leslie Hill and Helen Paris are artists working in performance, video and film, known for their edgy, humorous interrogations of contemporary culture and politics, work which has been called 'as smart as it is seductive'. Their new DVD, *Lost & Found*, a collection of three short films, is now commercially available. Hill and Paris's book, *The Guerilla Guide to Performance Art: How to Make a Living as an Artist* is published by Continuum. Their new book, *Performance and Place* is published by Palgrave Macmillan. Leslie Hill is a NESTA Dream Time Fellow.

### Dr Susan Kozel



Susan is the Principal Research Fellow (designate) in Human Movement and Technology, due to join the Senior Faculty in a more substantial iteration in 2007, and currently beginning her formal work with the new SMARTlab at UEL as a PhD supervisor and project collaborator. She was one of the original INMPR Researchers back in the late 1990s, and has remained active in our work ever since. She is a dancer, choreographer and philosopher working at the interface between live performance and digital technologies. She is the director of Mesh Performance

Practices, a company devoted to creating new performance ecosystems across real and virtual bodies. She is currently an Associate Professor at the School of Interactive Arts & Technology (SIAT) at Simon Fraser University in Vancouver, Canada and a visiting fellow with the SMARTlab Centre at University of East London. Her collaborative work has taken the form of responsive performance, interactive installation, wearable computing, and motion capture. She has published widely, and her work has been shown in many countries. Her book "Closer: performance, technologies, phenomenology" will be published by The MIT Press in 2007.

## DOCTORAL RESEARCH FELLOWS

### Dr Deveril



Deveril is a facilitator, filmmaker and writer. He holds a PhD in Dance from the University of Surrey. In 2003 he co-directed with Litza Bixler the short dance film Heart Thief for Channel 4, while researching Decentering the Dancing Text at University of Surrey. Deveril's background includes live and mediated performance work with Stacked Wonky, Redroom, Dead Earnest ("one of the best pieces of mime I have ever seen" Review of Deveril in The Nest, in The Stage, 12 June 1997) and as an independent and collaborative artist. He is currently a presenter and tutor for Cineclub -

the young filmmakers network - alongside his film and TV development with Dust Baby Films. His current project at the SMARTlab is Made of Stuff, an investigation into interactive narratives and knowledge mediation. In this project Deveril hopes to combine many of his skills and passions to produce joyful texts and tools for encouraging enquiring people.

### Dr Christopher Hales



Christopher took his MA in Interactive Design from the Royal College of Art and began his PhD studies there. He transferred to work with Dr Lizbeth Goodman at UEL a year ago, in order to bring a deeper appreciation of the interactive film as independent genre worthy of its own 'generic status' and analysis, both theoretical and practical. Chris has made some 12+ interactive films as part of his research, and has published a number of articles and book chapters along the way. The focus of the final year's research has been on weaving together the observations gleaned from the experience of making this

large and internationally renowned body of work, and applying relevant theoretical and cultural frameworks and methodologies. Chris is widely published and well known on the interactive media lecture circuit. He is now conducting post-doctoral research at the SMARTlab in the area of Interactive film, and is preparing his first full length book on the subject.

### Dr Anthony Hornof



Anthony Hornof is a computer scientist whose career aspirations after graduating from college were to be a nightclub deejay and a fine artist. He actually deejayed a bit at popular New York City discos in the 1980s. He then learned that he could combine his interests in both science and the humanities by studying human-computer interaction (HCI). He studied HCI at the University of Michigan, where he earned a Ph.D. in Computer Science and Engineering in 1999.

He is currently an Associate Professor in Computer and Information Science at the University of Oregon, with research specialties in cognitive modeling and eye tracking. Cognitive models are computer programs that behave like people and can predict the usability of human-computer interfaces. Dr. Hornof's eye tracking research has perhaps brought his career full circle. He has created eye-controlled interfaces that enable children with severe disabilities to draw pictures with their eyes, and electronic musicians to perform avant garde musical compositions with their eyes.

### Dr Genaro Rebolledo-Mendez





Genaro recently received his DPhil from the University of Sussex. He is due to join the new SMARTlab at UEL as project collaborator in January 2007. His DPhil work combines his programming skills with his understanding of motivational factors in education through an investigation of the effect of motivational scaffolding in intelligent tutoring systems. He received the best young researcher's paper award at the Artificial Intelligence in Education conference in 2003 for his work on motivation. He has conducted empirical work in classrooms, collecting and analysing data to investigate the effects of motivating techniques in tutoring systems. He is familiar with both quantitative and qualitative data analysis methodologies. His current research interests revolve around the creative use of technology to enhance learning in children, the use of data mining techniques to elucidate children's behaviours during their interaction with technology and the interaction between motivation and meta-cognition in learning contexts. Genaro has been Thesis director and lecturer of various undergraduate courses at the University of Veracruz, Mexico. He has organized and attended a series of workshops on the role of motivation and affect within learning environments at the ITS and AIED conference series where he has also presented his work. He is currently preparing two project proposals looking at issues of deliverance of educational content through video games and the transferability of meta-cognitive abilities across domains in collaboration with people at Sussex University and the London Knowledge Lab.

#### Dr Esther MacCallum-Stewart



Esther MacCallum-Stewart is a Post-Doc Research Fellow at SMARTlab, joining the Microsoft Community Affairs funded project on IT for Development, as sub-editor and research associate for related publications in this domain. Her work beyond this project investigates digital narratives, in particular the relationship between history and popular cultural representations through games, online resources and interactive media. Her research has investigated the relationship between digital narratives and warfare in the Twentieth Century, with a strong emphasis on how history becomes mythologized through cultural representations. She has published chapters on the representation of war in computer games and online role playing games, including chapters in a forthcoming anthology on *World of Warcraft* for MIT press.

More recently Esther's work has also begun to look at the ways in which people create imaginative spaces within digital worlds, looking at issues of agency within games and how players attempt to reinvent games by creating their own spaces and stories within them. In particular this looks at the way online gaming has dramatically increased the social creativity that goes on within play spaces.

Since 2002, Esther has run the pioneering weblog 'Break of Day in the Trenches' (<http://www.whatalovelywar.co.uk/war>); one of the first academic research weblogs in the country. The site documents her ongoing research, notes, commentary and resources, and has recently split to contain the sister site GlodnEpix (<http://www.whatalovelywar.co.uk/glodnepix>), which compliments her work into digital narratives

## RESEARCH FELLOWS

### Camille Baker Pic to follow

Camille Baker is conducting research, funded through our BBC project on Games for Thought/Somatics and Movement Studies. She joins the team in this official capacity in Feb. 2006. Also a PHD Candidate with the SMARTlab, her work overall focussed on Networked Performance Media. Her research interests include: mobile devices, video art, live cinema, performance and interactive media, responsive environments, media art installation, telematics, new media curating and networked communities. Baker's background ranges from music composition, singing and performance, to Executive Director/Curator of The Escape Artists Society in Vancouver, Canada, and Lead Curator, Conference Director and Co-Performance Art Curator for New Forms Festival in Vancouver, to editor-in-chief of an online pop-culture relationship support magazine - Tales of Slacker Bonding (2000-2003), to new media and web design /development, to documentary and online video and animation, to media art instructor, to visual arts curating, to sculpture and modern dance performance. For more details, papers and articles, go to her web portfolio at: <http://www.swampgirl67.net/>

### Dr Sol Haring



Sol is the newly appointed Research Fellow in Digital Narratives: a post that builds upon her previous work at UEL as a post-doc researcher. Her areas of research are narrative studies, gender studies and the crossovers to the field of digital media. In addition to her own research and writing, Sol teaches research skills and supervises research students for SMARTlab. Sol coordinates the methodology training and seminar schedules for the SMARTlab PhD programme as well. As a digital media artist and stage performer, she brings her experience into her research.

### Damini Kumar



This engineer of everyday life believes that the recipe for good design engineering is one-part ingenuity and invention, and one-part creativity and imagination. Damini's first degree was in mechanical engineering at Imperial College and she went on to do a master's degree in engineering product design. She launched a range of funky D-pots (non-drip teapots) at the BBC's Tomorrow's World Exhibition in 1999. She was not only the youngest exhibitor but also won an award for Commended International Invention of the Year and won the prestigious Young British Female of the Year Award 2001. She has used her media profile productively, spreading the message of the UK's Women Into Science and Engineering (WISE) campaign about the opportunities in engineering and science to young schoolgirls.

### Suzanne Stein



Suzanne leads the Mobile Platform Games Research Group for SMARTlab, and co-supervises the PhD cohort working on Accessible Technology and Personal/Community Fabrication (within Peoplelab). She has been a core member of the new technology division, Habitat, at the Canadian Film Centre, since its inception in 1997. She is currently faculty member and module leader for interactive media and narrative theory in their training programme and is a co-mentor for the Interactive project lab that runs across Canada, guiding and nurturing innovative technology projects for market launch. In addition to her work at Habitat, she has been a research and creative consultant to the IT sector for 7 years, forerunning and anticipating the importance of the new discipline of User Experience. Most recently, she led Nokia's research into the 'worldmap' for technology spread, and headed up some of their creative vision projects. She is working on a book about Future Visioning & Gender in the Technology Market, for the Emergenc(i)es series with MIT Press.

## PEOPLELAB STAFF

### Toby Borland



Toby has worked with SMARTlab as an artist-technologist dedicated to the real world applications of technology, since 2005. He joins the team in an official capacity, from our London base, in February 2007. He was born on 27<sup>th</sup> February 1971 in Bray, Ireland. He left home at 15, hitch-hiked to India when 17 working as street performer. Returned to Dublin when 20 returned to school and studied mechanical and design engineering at Trinity College Dublin. Graduated when 25 and worked mainly as a sculptor with stints in electronics and programming until 29.

He left to travel around South and Central America for a year, and returned in 2001. For the past few years he has been working part-time in facilitating sculpture projects within addiction rehabilitation centres, part-time developing mini-foundry techniques, and part-time developing Computer Aided Manufacturing interfaces in relation to artistic/sculpture projects. Currently finishing an implementation of an analemmic equatorial sundial. He now finds himself in the uncharted territory somewhere between art and engineering. He has a cantankerous old Z650 motorcycle and no television.

### Turlif Vibrandt



Turlif Vilbrandt is our new Research Fellow in Personal/Community Technologies, and the Manager for Peoplelab UK. He is also conducting a practice-based PhD with the SMARTlab.

Since first touching a keyboard, over 20 years ago, Turlif has been inseparable from digital processes, programming and technology. He has a long history working with and developing, various Web technologies, 3D Computer Graphics and Digital

Materialization (the accurate and complete representation of any real or imagined object digitally and/or the creation of real, tangible, usable instances of these digital objects).

Turlif established one of the first companies to develop and holistically apply function based Solid Modeling to real world applications using personal computers. Offering this unique technology and approach has taken Turlif and his company across the globe. His ideas and technology have been applied to diverse applications over the years, from environmental down hole drilling to ancient temple reconstructions.

In addition to helping create and develop the emerging field of Digital Materialization, Turlif has made contributions in the areas of digital historical preservation, virtualized (transparent) learning (educational 3D sims/games), Web based Content Management Systems, and decentralized, free/open developmental, social, and legal frameworks. He is the architect, author and co-developer of a variety of software applications and frameworks. During the last 4 years, in rural Japan and Norway, Turlif founded and helped establish digital community centers dedicated to IT education and personalized micro-manufacturing. He is also an active participant of the Free, Libre and Open Source Software (FLOSS) community.

In spite of Turlif's life long infatuation with technology, he believes that the traditionally pure pursuit of "technology for technology's sake", is a flawed approach. Turlif maintains that human and environmental issues will have to be a factor in the future of technology innovation for successful economic and social development to occur (particularly in this age of personal digital empowerment). He is developing his own FLOSS licensing to help address, in part, this issue.

Turlif currently sits on the board of directors of several international organizations including a newly formed non-profit in Japan dedicated to Digital Materialization. Turlif comes to the PeopleLab from MIT FabLab Norway where he is Director of Technology.

## MAGIC: HOTOUSING RESEARCHERS

### James Brosnan



James Brosnan is the SMARTlab's Associate Research Fellow in Assistive Technology Innovation. He has worked with us on the Trust Project, StreetscalledHome, Guinevere's Globe, Fellicean, and a number of major externally funded projects since 2003. He is also an author and activist in the domain of disability and widening participation through technology. He is also a key member of IBM's user testing research lab. James Brosnan works as a journalist in the Forum of People with Disabilities Dublin, which plans to launch a Newszine in 2007 for the Forum's 15th anniversary. The Forum prides itself as Ireland's only non-governmental organisation that is run by disabled people for themselves. It promotes the inclusive social model over the antiquated medical one. In November of this year, James was also appointed to work part time as a lead Journalist for the Centre for Independent Living in Dublin. He is also a lead tester for IBM Europe's disability interfaces research.

James has traveled with the SMARTlab and has joined our major public panels at the UN, the Word Summit in Tunis, the USA et al. He has co-authored and performed with our team in numerous productions, live and in live stream. He is the inspiration behind much of our work in Assistive Technology.

James was the first boy in Ireland to learn to use a computer via alternative interfaces, and has been a lead tester since. He was also the first person in Ireland with extreme cerebral palsy to earn his full college leaving certificate, and to receive a first class college degree. He is planning to enroll for graduate study upon completion of his book in progress for MIT.

### Professor Daria Dorosh



Daria is an artist and senior researcher with SMARTlab and fashion design professor at the Fashion Institute of Technology in New York City. She is a practicing artist and has had sixteen one-person shows since 1974. She was a founding member of A.I.R. Gallery in 1972, the first artist-run art gallery in the United States established to showcase the work of women artists. Fashion is a rich repository of social, historic, and personal information which she integrates into her art theory and practice. She brings her synthesis of art and fashion to the MAGIC Playroom where she is exploring the whole garment knitting technology by Shima Seiki, digital fabric printing, and new ways of engaging the public in designing their own surfaces and fashions.

### Jaqueline Ford Morie



Jacki has worked in both animation and visual effects entertainment (Disney, Rhythm & Hues Studios) as well as with developing virtual environments in government-sponsored research laboratories. The proposed 'Memory Stairs Project' is an artistic virtual environment installation embodying the tools and techniques she plans to develop to create extremely compelling virtual worlds. The 'Memory Stairs Project' aims to begin to answer the key question "does virtual reality really have a unique language" by examining the vocabulary and grammar in development.

### Gayil Nalls



Gayil Nalls is an interdisciplinary artist, theorist, writer, curator, filmmaker, and academic who works in the arenas of professional art practice, science, and academia. Nalls is widely known as a pioneer of olfactory art. She broadened the definitions of sculpture and public art when her world social olfactory sculpture *World Sensorium*, premiered at New York's *Times Square 2000* celebration. *World Sensorium* was endorsed by UNESCO as a project of peace and goodwill, and was also featured in Washington, D.C.'s *Millennium Around the World* gala and the Vatican's *Millennium Jubilee* in Rome, Italy. The World Sensorium Web site ([www.worldsensorium.com](http://www.worldsensorium.com)) is referenced by thousands of Web sites, including Saatchi and Saatchi Gallery Forum.

Nalls has produced films for PBS, museum installations, film festivals, and galleries worldwide. Her 1990 film, *A Common Destiny*, aired nationally on PBS and in Rio de Janeiro at the 1992 Earth Summit, and won the 1992 Mayor's Earthpeace Film Award. Her video performance work, *The Laments*, was shown



at the United Nations Fourth World Conference on Women, in China, and her installation, *Permutatude* was presented in a large screen installation at the Seville1992. In 2004, *Hemispheres I*, was shown at Siggraph Gallery in LA, on the OmniGlobe (a spherical projection system) where Nalls united her sculptural, film, painting, and olfactory talents in a multisensory experience. *Hemispheres I* was screened at the 2005 Cannes Film Festival.

In 2005, Nalls completed the *September 11<sup>th</sup> Memorial for The City of White Plains, New York* and has two commissions in process. Ms. Nalls has had five one-person exhibitions in New York. Her art can be found in the collections of the Metropolitan Museum of Art, The Corcoran Gallery of Art, The National Museum of American Art, and numerous other public and private collections.

Nalls has taught at Parsons School of Design and at the New York Institute of Technology and has served as Visiting Artist Professor at many institutions including The Institut Supérieur International Du Parfum at the University of Versailles in France. She is an Associate Research Fellow with The SMARTlab Digital Media Institute, University of East London, where she is finishing her Ph.D. dissertation. She is also an artist member of the Institute of Neuroesthetics in the UK.

## The SMARTlab Associate Researchers

### Dr Sara Diamond



Sara Diamond became President of OCAD in July 2005 after a distinguished career with the Banff Centre, where she eventually served as Director of Research for the entire Centre after creating the renowned Banff New Media Institute in 1995 and serving as Artistic Director of Media and Visual Art. She has taught at Emily Carr Institute of Art & Design; The California Institute for the Arts, and the University of California, Los Angeles where she remains Adjunct Professor, in the Design/Media Department. Her research in collaborative tools, visualization and new media art criticism and history has been awarded by Canadian and international research councils. She is also a practicing artist and designer, working in video installation, artist's television and most recently conversation visualization software, artificial intelligence and performance. Her work resides in collections such as the National Gallery of Canada and the Museum of Modern Art in New York. She regularly contributes to scholarly journals and books, speaks about media history and practice around the world and is the curator of video and new media exhibitions in Canada and abroad. Diamond received her post-secondary education in History, Communications and New Media Culture in Canada and the United Kingdom.

### Dr Sher Doruff



Sher is currently Creative Director of the Sensing Presence department of the Waag Society/for old and new media in Amsterdam and is a core member of the development team of KeyWorx, a distributed, multi-user, multi-channel performance platform. Working in the digital arts since 1986, she has collaborated on projects which intersect many areas of performing arts practice. She also coordinates the Augmented Performance Practice module of the Dance Unlimited postgraduate program in the Netherlands and is a researcher with the ARTI lectoraat of the Amsterdamse Hogeschool voor de Kunsten. Her articles have appeared in books, journals and electronic journals.

### Dr Brian Duffy



Brian has been actively involved in research in many international academic and non-academic institutions throughout Europe in the fields of robotics, artificial intelligence and haptics for over 14 years. Currently, Brian is a Research Engineer at the Institut Eurecom, Sophia Antipolis, France. Previously, Brian conducted postdoctoral research at University College Dublin (UCD), directed the Anthropos Group at Media Lab Europe, and research for GMD, Germany and INSA de Lyon, France. Brian has a Masters of Engineering Science, a Bachelor of Science in Production Engineering, is a member of the IEEE, a Chartered Engineer, and holds the Eur.Ing qualification.

### Dr Mary Flanagan



Mary investigates everyday technologies through critical writing, artwork, and activist design projects. Her work has been exhibited internationally at museums, festivals, and galleries, including: the Guggenheim, The Whitney Museum of American Art, SIGGRAPH, The Banff Centre, The Moving Image Centre, New Zealand, Central Fine Arts Gallery NY, Artists Space NY, the University of Arizona, University of Colorado-Boulder, and venues in Brazil, France, UK, Canada, Taiwan, New Zealand, and Australia.

Her essays on digital art, cyber culture, and gaming have appeared in periodicals such as Art Journal, Wide Angle, Intelligent Agent, Convergence, and Culture Machine, as well as several books. She is the creator of "The Adventures of Josie True," the first web-based adventure game for girls, and is implementing innovations in pedagogical and values-based game design. Mary Flanagan holds MFA and MA degrees from the University of Iowa, a BA in Film from the University of Wisconsin-Milwaukee, and a Ph.D. in Computational Media focusing on activist game design from Central Saint Martins College of Art and Design, UK.

### Dr Jools Gilson-Ellis



Jools Gilson-Ellis is a writer, choreographer, performer and installation artist. She is co-director of the performance production company half/angel, founded in 1995 with Richard Povall. Half/angel develops projects involving new technologies, poetic text and performance. They published the CD-ROM mouthplace in 1997, and produced the dance theatre production The Secret Project in 1999. half/angel are currently developing an intelligent garden in collaboration with The Eden Project in Cornwall, UK, called The Earth Diaries.

### Dr Gary McDarby

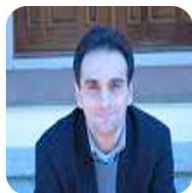


Gary graduated from University College Dublin (UCD) with a 1st class honours degree in electronic engineering. He returned to UCD for a Masters degree in signal processing and mobile communications and then worked as an ASIC design. He completed his PhD Bio-medical signal processing in 2000 at the University of New South Wales, Sydney.

He leads the MindGames group which works on a concept which has been termed 'Affective Feedback' which asks the question 'is it possible to constructively affect the state of the human mind through a combination of sensory immersion, intelligent bio-feedback and multi-modal interface technologies?'

The Mind Games group has expertise in cognitive science, psychology, music composition, graphics, hardware design, games programming, games engine programming, artificial intelligence, mechanical engineering, robotics, biomedical signal processing and design. He believes in a design and research for all philosophy - by researching and developing technologies for extreme cases (his twist on extreme interfaces) in the human condition, a broader understanding of how technology (as a tool) can influence humanity positively is achieved.

### Dr Bakhtiar Mikhak



One of the original computer scientists and inventors behind some of the MIT Media Lab's major projects in the Centre for Bits & Atoms and the Lifelong Kindergarden teams, Dr Bakhtiar Mikhak is now an independent research scientist and the director of the Grassroots Invention Group (GIG). He seeks to make the invention of sophisticated things easier for everyone. His research is guided by a simple principle: the most effective learning tools allow people to have "the pleasure of finding things out" through inventing things. To this end, Mikhak's research group has developed

powerful, low-cost personal fabrication tools that can enable anyone to invent their own intricate physical and computational artifacts. He is working with SMARTlab on the development of an international Peoplelab network, and on co-supervision of PhD students in the Personal/Community Fabrication Research Group.

### Dr Celia Pearce



implementation of international research projects.

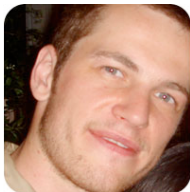
Celia is an Assistant Professor in the School of Literature, Communication and Culture at Georgia Tech. She has also worked as a researcher and teacher at University of Southern California and University of California Irvine. She has over 20 years experience designing interactive games, installations and attractions, and is the author of the *Interactive Book: A Guide to the Interactive Revolution* (MacMillan 1997). As a research associate, she will be collaborating with SMARTlab in the conception and

### Dr Marc Price



Marc updated bio to follow (BBC R&D Sr Engineer Researcher on secondment to SMARTlab)

### Jeremi Sudol



Jeremi Sudol is interested in developing technologies that celebrate the human spirit. He's been involved in a variety of projects in active technologies, experimental human-user interfaces, performing and visual arts, and artificial intelligence. Jeremi holds a Masters Degree in Computer Science from New York University and a Bachelor of Science in Computer Science and Psychology from Rensselaer Polytechnic Institute.

### Fiddian Warman



Fiddian is an artist/researcher and founder and Managing Director of Soda, the creators of the collaborative community based learning and play web resource, [sodaplay.com](http://sodaplay.com). Sodaplay, Sodacities, Moovl and other Soda creations rank as some of the world's most popular web-based dynamic simulation systems. Fiddian will bring his work with SODA to the MAGIC Playroom in its next phase of customised community outreach in Gaming for Immersive Play.

### Huw Williams (Head of Research: BBC- research affiliate- SMARTlab)



## Technical Arts/Design Interaction Team:

### Taey Kim



Taey is a brand manager for interactive media and arts in MAGIC/SMARTlab, harnessing the focus on brand identity and creative interaction design for games with her experience as an online creative designer and fine artist, specializing in interactive multimedia design and narrative photography. She is also leading curatorial team and creative projects. She holds MAs in Interactive Multimedia (MA) at LCC, Goldsmiths College and Fine Art at Chelsea College, while her media art exhibitions have travelled from the Far East to the West.

## Jana Riedel



As a Digital Artist and Filmmaker, Jana will contribute her skills in media arts and digital editing technologies, as well as her talent as a film-maker and documentary artist, to the work of the MAGIC project. Jana is responsible for the creation of the visual content of the SMARTlab's projects. She has also been actively involved in taking technology applications to artists and students, helping people of many different levels of ability to integrate those technologies into their working practices and lives.

## Axel Vogelsang



His research is looking at how new concepts of interfacing with computers such as tangible or sensory interfaces will change the visual language of personal computing, i.e. how it will challenge the desktop metaphor. In this context Axel is investigating the following issues: the role of metaphor and visual language in HCI / embodiment and its role as a mediator between analogue and digital / alternative tactile and sensory interfaces for HCI / digital/analogue hybrids

## SMARTlab Digital Media Institute support team



Led by:

Ms Stanislava Mislanova, Receptionist/ P.A. to the Director & Finance Assistant (and anthropologist and Samba dancer!)

**We are currently recruiting for a Lab Manager & Research Administrator to complete the team. Watch this space. . .**

## Samples of Current Projects:

### TRUST (Open & Multimodal Interfaces)

Group Leaders: Dr Brian Duffy, Prof. Lizbeth Goodman

Team: Jana Riedel, Jeremi Sudol, Robin Faure, Kate Brehm, Tahmina Parvin



The work on multimodal interfaces taking place in the PLAYroom is informed by SMARTlab's long term close partnership with the robotics & haptics engineers of the Open Interfaces Team (previously led by Dr Brian Duffy at MLE, Dublin) and by the research of the Mindgames Team at MLE (previously led by Dr GaryMcDarby). SMARTlab is delighted to host the new iterations of this work in the PLAYroom at UEL.



Work underway includes the next iteration of the Inter-Faces project, exploring Assistive Technology interfaces for gaming on a universal design platform, along with new research into bio-affective feedback triggers for movement and 'control' in virtual worlds and game environments (including learning environments).

### Accessible Tech / 3D Prototype & Game Design- Peoplelab

Communities of Play: Peoplelab

Group Leaders: Professor Baktiar Mikhak, Prof. Lizbeth Goodman

Team: Ed Baffi, Clilly Castiglia, Damini Kumar, Tahmina Parvin



The Peoplelab Project has been designed as the core learning community test bed for this broad range of researchers. The MAGIC lab space will host Peoplelab: its equipment and research teams, and will provide a base for the seminars, think-tanks, skillshop and playshop events.

In these, the SMARTlab core methodology of action-research and the integration of theatre games into learning games will be tried and tested alongside more standard 'product design' and learning methods.

### Immersive Play

Group Leaders: Prof. Lizbeth Goodman, Clilly Castiglia, Fiddian Warman

Team: Ed Burton, Anita McKeown, Mary Newman, Andy Minnion et al



The Immersive Play team explores online games and engines of use for East London communities of young people and people with disabilities.

It is closely linked to the research of Soda: one of a set of core creative teams based in the MAGIC centre at UEL. Soda has won numerous grants and awards (including a BAFTA) for their creative uses of new technology in play, learning and art.

Immersive Play also interacts closely with UEL's Rix Centre, and provides the Rix with a high tech home on the UEL campus,

where their long term work into gaming and interaction studies for people with learning disabilities can be developed in a practical space for future tech development and hands on site-based research.

### ScreenToScreen

**Group Leader: Dr Sher Doruff, Prof. Lizbeth Goodman et al**

**Team: Robin Faure, Dr Deveril Gallagher, Dr Christopher Hales, Alexis Johnson et al**



The SMARTlab has invented a number of new interactive screen technologies and is currently investing in research around the uses of screenic work in learning, teaching and entertainment.

Dr Sher Doruff invented the Keyworx platform with the WAAG society Amsterdam, and developed and tested the software through a major four years research project that led to award of the PhD with the SMARTlab in 2006.

She leads a new team including two noted scholars and practitioners or interactive film.

### Wearable Technologies

**Group leaders: Dr Susan Kozel, Prof. Lizbeth Goodman**

**Team: Camille Baker, Daria Dorosh, Kathy & Tara Mooney (Bodkin Designs), Gayil Nalls**



One of the biggest gaps in the field of rapid prototyping of tools for learning, internationally, is the field of 'wearable tech' that can be made in affordable, accessible settings. The SMARTlab runs the SafetyNET project for women and young people who have survived domestic violence, and creates shelter and IT training programmes to 'skill up' women for more safe, sustainable future careers.

As part of this project, the team has created two award winning set of wearable tech and 'cyberfashion' garments and fashion lines, premiered at the prestigious Siggraph conferences in Los Angeles in 2004 and 2005. The fashion and technology teams have joined forces with Peoplelab, to purchase a Shima Seiki Whole Glove Knitting Machine, to be added to the Peoplelab equipment and training programme, specifically to encourage women and artists to apply their skills to the making of new technology tools. In this, the team aims to move the field of physical computing across the gender divide, and to empower next generation technology-enhanced learning on new materials and fabrics, wearable technologies and futuretech platforms for girls and women as well as for (the primarily male domain often

described as) 'techies'.

### Bridging the Gender Gap


**Group Leaders: Dr Leslie Hill, Dr Mary Flanagan**

**Team: Vera Doerk, Vicki Munsell, Mary White, Dr Celia Pearce, Dr Katherine Milton et al**



Professor Goodman is a leading theorist of Gender Studies and a noted PI of projects exploring the learning methods and preferences of girls and young women, in club tech learning environments, home environments, women's shelter, Open University courses et al. Amongst the numerous projects addressing the 'girl games' for education agenda upon which Professor Goodman has worked as a senior advisor/learning expert, a notable few include:

Values at Play (VAP), co-PI with Dr Mary Flanagan: exploring the values of gaming and the implications of gender-aware programming and technology tools creation HOPE: a network of hospital-based online game and education tools tested by medical doctors and patients in US children's hospitals (Harvard Med, Johns Hopkins et al) Rapunzel, led by Dr Mary Flanagan in New York public schools Netsmartz, led by Vicki Munsell as part of the BGCA/Microsoft Clubtech project.

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