This immersive, interactive exhibit is inspired, in part, by the evolution of Bhangra music and dance from its folk roots to hip hop, paired with the increasing importance of Bollywood films, and the presence of its movie stars within western media. This project responds to the significance of India’s contributions to the development of technology, and the changing character of club culture with the globalization and digitization of both traditional and popular music. Using the strategies of DJ and VJ artistry, combined with viewer-activated technology, this edgy mashup will “show and tell” as you dance. Featuring sound by Beats without Borders, visuals by Suez, and more by project team members: Tarun Nayar, Lady Ra, Suez, Leonard Paul and Niranjan Rajah.

The Surrey Art Gallery commissioned this project for the TechLab – a dedicated space supporting the production and presentation of digital art forms. The Surrey Art Gallery is the only art museum in Canada that offers an ongoing program of new media exhibitions and artist in residence program.
Artist Team Statements

Leonard Paul
With this project I wanted to bring my interests of live electronic music performance and video games together in the context of the gallery setting. I greatly enjoy working with artists to create interactive systems that are fun and engaging for the participant, yet provide a deeper connection and meaning through the act of play. This work builds upon the concepts originally explored in the Surrey Remixxx project and examines how culture is being constantly reshaped through digital media on a global scale.

Technical Notes:
- Mashup of crosscutting video and audio simultaneously
- Produces an effect of fusing or synaesthesia between the visual and auditory
- Open source language Pure Data is used for the majority of the visual processing, display and audio manipulation
- The visuals and audio react in real-time to the changes of the audience similar to a live performance by a DJ and VJ collaboration
- Motion-detection camera reacts to motion in the installation space and guides the performance
- Visuals and audio are selected from subject pools and move between related topics using a basic form of artificial intelligence
- Videos and audio are tagged by artists to belong to certain subject areas and the code dynamically explores how to move between related subjects, causing correlations and contrasts between the subject areas being explored
- Communication via ethernet to multiple computers running video, audio and motion detection
- All video and audio sequencing is done live and produces millions of potential sequencings and outcomes for the experience
- The higher the degree of interaction of the audience with the installation, the higher the degree of manipulation and processing is done by the mashup engine
- One of the most successful aspects of the piece is that the remix moves through image groups which are thematically related, such that the resulting display chains between conceptually related imagery.
- Substantial use of open source software such as OpenOffice, Pure Data, GEM (Graphics Environment for Multimedia), Filezilla, Firefox and more
- Bi-directional message passing between Flash client computer video displays and Pure Data server computer
- Real-time beat and tempo detection to synchronize tightly with video
- Real-time video playback stretching to fit video length to currently playing audio tempo
Nirnajan Rajah

With the advent of social software and community computing, collaboration and sharing has been the driving force of the internet industry on a scale never seen before. Youtube, Wikipedia, Flickr and MySpace are examples of the extensive collaboration and co-production that threatens to become a revolution in content production, distribution, accreditation and ownership.

From the point of view of art and aesthetics there has been a definitive collapse of the space between consumer and producer. Postmodernism's esoteric forwarding of kitsch as a challenge to the high idealism of modern art has turned into an aesthetically banal yet socially invigorating participatory aesthetic of technology enabled remediation. There has, of course been a challenge to legally enshrined notions of ownership.

My contribution to this mashup is not really mine at all - it is 'yours' - as in Time magazine's person of the year 2006 - the 'you' in Youtube!!! What I offer to the remix engine is a series of clips selected, ripped and edited from the Youtube universe - this is India Bollywood and Bahangra as evidenced and enacted in the form of video content. I attempt to articulate a remix narrative of India across a encyclopedic list of themes (tags) - lotus, space, bollywood, dalit, khalistan, barathanatyam, outsourcing, etc. Inspired by the accomplished DJ's, VJ's with whom I am privileged to collaborate on this project - I launch my role as a fledgling YouJ!

Lady Ra

Putting together content to provide sound for the Cultural Mashups project for me is both a learning experience and something to be humble about. The technicality of it all definitely challenged my understanding of both multimedia hardware and software! Furthermore, as a pardesi (non-Indian), to choose music for this project that represents a wide array of Indian forms and its fusion with 'Western' musical sensibilities is both an honour and something to honour in the process; I have loved such fusions from the time I heard Ravi Shankar play with the Beatles as a young child. From Bhangra-HipHop, Breakbeat, and Drum & Bass to Bollywood house and trance, to the rougher sounds of the Asian Underground, I wanted to select tracks that I respected musically and that is sourced from across the Indian diaspora.

Slicing it all into loops, knowing that it will be rearranged in a more or less random fashion triggered by the participation of the curious bystander, means surrendering control over the end result. This is actually the opposite of my experience as a DJ that keeps the crowds moving on the dance floor, where I can gauge the response of individuals and make adjustments to the flow as necessary or desired. Perhaps without the human-to-human contact some of the energy is lost. Just as likely, however, is that no two individuals or groups of people will see the images or hear the music the same way, or even the same way twice for the same people. So, it could also be that endless variations on the same themes will be woven and rewoven, and subtleties will be revealed as the layers deepen. I’m sure I will experience it and re-experience it many times myself.
Suez Holland
In the realm of visuals, the ultimate catharsis occurs at the interplay of sound and video, as if they were created for each other. It allows us to dream for a moment that a beat drops when a lotus flower opens its petals, or that everyone on the street breaks into synchronized dance moves when your favourite track comes on. My goal with projected video is to enhance the bond between music and video to create a third experience, beyond the sum of its parts. Let the audience’s lens be re-focused upon this entity as if it were a house to enter, one with colourful walls and a story to tell.

Bhangra music fascinates me for its ability to inspire laughter. I am drawn to this ethic of positivity; it’s very contagious. Imagine this is one of the reasons Bhangra has caught on so well in other countries other than India.

As I designed the video for the Cultural Mashups piece, my intention was to create loops that the ‘mashup engine’ could feed on for rhythm. Some of this process was downright mathematical, as the ‘engine’ generates loops based on equation and audience participation. In the live performance setting, I often act as the instigator, but here, I was challenged to intuit participants’ reactions and pre-design an entire video experience that functions without an operator. Make sure to test the live camera triggers, as these are my virtual eyes that will change the video on your command.

Clearly this ‘engine’ could prove to be my nemesis if it learns live video performance! Somehow I doubt this, as the choices that a VJ makes in a live setting require cognition, that uncanny ability to make artistic judgements around mood and content by directly feeding off of the moment. This is what makes each concert or performance experience special. That being said, the mashup engine is ultimately our mirror, a laboratory’s Petri dish of what we fulfill at a real event. I invite you, the audience, to compare the two: mashup machine vs. live artist.

Tarun Nayar
I’m half Punjabi and half Irish Canadian, so in many ways I feel that I AM a mashup. This could explain my obsession with the art form. In mashing art up, I am re-creating myself. I’m exploring the process that I am.

"Mashups", possibly one of the biggest movements in dance culture over the last few years, are as popular as they are because they show us things we think we know (music from the past, music from the current charts), combined, twisted, and re-formed into something totally new and unexpected. Technically, a mashup is a combination of 2 or more tracks. DJs and producers lift the bass line off one track, the vocals off another, and maybe the hook off a third, to form a totally new take on all three with the finished product. Mashups surprise us, make us laugh, and sometimes strike a deep cord within us because they allow us to see the familiar from a totally new perspective. The best mashups demonstrate how much more the whole is than the sum of its parts.

In many ways, the whole world is becoming a mashup. Globalization connects us in ways that the human race has never been connected. People are increasingly interacting and exchanging
ideas with each other, effectively mashing together their collective experiences. Digital media makes it easy for us to take elements (music, art, dance, science) of the many cultures around the globe and re-combine them. The result? Sometimes a deeper understanding of the world, sometimes just confusion!

South Asia, India in particular, is extremely interesting to observe from the perspective of mashups. In India, old and new, east and west, rich and poor, are mashed up into a seething, heaving and surprisingly coherent society. Every day, the massive influx of Western influence (through TV, movies, music, art, the news), meets a culture and a worldview that is thousands of years old. The results are unpredictable, sometimes joyous and sometimes sad.

In some ways, the REMIXX engine more accurately portrays the true nature of mashups than a human ever could. The randomness built into the engine creates connections between sound, video, and the viewer in unpredictable and often surprising ways -- just like mashups are created in the real world. For me this exhibit is an attempt at understanding the processes behind the global 'mashup' that is our present reality.

**Artist Team Biographies**

**Leonard J. Paul**
Leonard Paul attained his Honours degree in Computer Science at Simon Fraser University in BC, Canada with an Extended Music Minor in Electroacoustics. He has been teaching video game audio at the Vancouver Film School for three years and has a thirteen year history in composing music, creating sound effects and coding for video games for leading gaming companies such as Electronic Arts and Radical Entertainment. He has spoken several times at the Game Developer's Conference as well as contributing articles to Gamasutra.com on the topic of game audio. For DiGRA 2005, Paul was invited as a senior scholar in game audio to mentor graduate students with other leading game scholars. In the field of interactive audio art, he has presented work at the Surrey Art Gallery, ISEA 2006 in San José, the Walter-Phillips Gallery in Banff, the Cabaret Voltaire in Zürich and Open Space in Victoria. In film, he was the composer for *The Corporation*, the highest-grossing Canadian documentary of all time. He has most recently completed music for the Nintendo DS game *Death Jr. 2: Science Fair of Doom* for Backbone Vancouver.

[www.VideoGameAudio.com](http://www.VideoGameAudio.com)

**Suez Holland**
Suez Holland, owner of Electrabelle Visual Effects, has been providing visuals for concerts, performances, and live events for over 10 years. With a background in animation and visual effects, Electrabelle designs custom imagery specific to each event. Recent collaborations include Sweet Soul Burlesque, The Herbaliser, Beats Without Borders, Vancouver Folk Festival, and the Vancouver Contemporary Art Gallery. [www.electrabelle.com](http://www.electrabelle.com)
Cultural Mashups: Bhangra, Bollywood + Beyond
March 31 – August 19, 2007
in the Surrey Art Gallery TechLab
Curated by Liane Davison

Tarun Nayar
Tarun is a hybrid, a meeting point between east and west; a cross-cultural (con)fusion. He is a classically trained tabla player, a DJ, and a producer, obsessed with fusing traditional Asian sounds with wikked electronic beats. He performs globally, trains in Mumbai, and represents the Canadian massive in Vancouver. As a producer, Tarun creates South Asian influenced sonic landscapes and uptempo asian beats and breaks. As a DJ, ‘Tspoon’ mashes funk, hip-hop, dancehall and bhangra into a bouncy, juicy dance floor madness. As a tabla player, Tarun trains classically in the Punjab school, and represents in both traditional and electronic situations.

Tarun has shared the stage with Anoushka Shankar, Cheb i Sabbah, the MIDLval Punditz, Karsh Kale, Dhamaal, and DJ Nasha among many others. He's been featured on Channel M, Global TV, City TV, and many times on French and English CBC Radio. In Vancouver Tarun is currently performing with 5 projects: global music DJ collective Beats Without Borders; crazy Celtic Punjabi live electronic act Delhi2Dublin; Indo Japanese Fusion trio Dharmakasa; acoustic gypsy quintet Tambura Rasa ; and bhangra grime act BPM. www.myspace.com/taruntspoon

Lady Ra
Lady Ra physically resides in Vancouver, BC, but she is usually plotting many journeys elsewhere. When she can't get there immediately she occupies her time researching and collecting music from all over the planet, especially the East. She has visited many places from Mexico to Spain to India and beyond. You can usually find her there asking directions to the nearest music vendor, sometimes with astonishing results. Lady Ra is a co-founder of the Beats without Borders Collective.

She is also a support worker to people with multiple challenges such as drug addiction, poverty, abuse, and mental illness, just in case you were thinking that she leads a glamourous life.

Niranjan Rajah
Niranjan Rajah is an Assistant Professor at the School of Interactive Arts and Technology, Simon Fraser University. He is the convener of the annual New Forms Festival Conference, Vancouver. He is a Researcher in Residence at the TechLab, Surrey Art Gallery developing an exhibition on the junction of Sacred art and Digital technologies titled Sacred Spaces. Niranjan is a member of the Media Arts Advisory Committee for the Canada Council for the Arts, a member of the Board of Directors of Vancouver International Centre for Contemporary Asian Art (Centre A), Vancouver as well as a member of the advisory board for the BANFF New Media Institute (BNMI). He is also a founding member of the Accented Technologies Collective, a Canadian Collective for culturally reflective computing. Niranjan has previously served on the Board of Directors of the Inter Society for Electronic Art (ISEA). Niranjan was Keynote Speaker at the ‘Collapsing Geographies Forum’ of the 2nd Multimedia Art Asia Pacific Festival Brisbane and he won an Asian Scholars Award at the 15th International Congress of Aesthetics, Tokyo.