The Institute of Neuropalliative Rehabilitation

Royal Hospital for Neuro-disability
A national medical charity

INTERNATIONAL CONFERENCE

MUSIC TECHNOLOGY: SOLUTIONS TO CHALLENGES

The interface between music, engineering, special needs and neuroscience

Royal Hospital for Neuro-disability, London SW15 3SW
11th – 12th June 2010

This conference offers an opportunity to share knowledge and information about technology relating to musical expression and experiences. Presentations will address the use of technology to meet special needs and measure responses to music. Professionals involved in using, designing and researching music technology for use in clinical, educational, and community settings will give presentations covering topics in the following three themes:
Clinical Practice, Engineering & Design and Measurement & Evaluation

Cost per delegate after April 9th: £250 / Student £200
Early bird rate before April 9th: £200 / Student £140
All fees plus VAT. Student places limited.

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Main Themes of the Conference:

Clinical practice

Work involving electronic music technologies in practice with people with special needs e.g. music therapists; music teachers working in special education; community musicians; computer music scientists

Engineering and design

Those involved in developing music technologies and assistive technologies with a potential application in clinical/community settings.

Measurement and evaluation

Those involved in developing/ using technology for measuring musical responses e.g. brain imaging/PET/ EEG; clinical evaluation systems

Key Note Presentations

Brain-Computer Music Interfacing: From Basic Research to the Real World of Special Needs
Prof Eduardo R. Miranda,
Interdisciplinary Centre for Computer Music Research (ICCMR), University of Plymouth, UK

A brain–computer interface (BCI) allows a person to control electronic devices by means of commands expressed by signals read directly from their brain using appropriate brain scanning technology. We are interested in developing brain-computer music interfacing (BCMI) technology aimed at people with complex physical needs but able brain function. BCMI technology has the potential to enable active participation in music-making activities for recreational and therapeutic purposes. Despite recent advances of BCMI technology worldwide, this technology has seldom been trialled with the sector of the population that really needs them. The author will make a case that the time is ripe to trial such technology in the real world of special needs. This talk will begin will a brief survey of the field of BCMI. Then it will introduce proof-of-concept systems developed at ICCMR, followed by a glance of the ongoing research into trialling BCMI systems with patients at RHN.

Musically Assisted Rehabilitation Systems: utilizing music technology to enhance therapy.
Dr. David W. Ramsey
Board Certified Music Therapist and a member of the American Music Therapy Association
Special Projects Consultant , Institute for Music and Neurologic Function, USA
Co-Founder , Musically Assisted Rehabilitation Systems, Inc. USA

Engaging patients in expressive, meaningful, music-centered experiences, while at the same time addressing psychosocial, physical and neuro-cognitive needs has long been the hallmark of music therapy. In a world of multiple, exciting technologies, therapists must exercise discernment as to the precise way a particular technology addresses client needs. Guidelines that provide a list of music technologies, their features and how these features can be employed therapeutically, can be helpful. Musically Assisted Rehabilitation Systems (MARS) are musical instruments that require movements similar to those exercised during Occupational/Physical Therapy. MARS instruments are designed to highlight the somatosensory elements of expressive music making. Computer MIDI information is directly linked to physical function (range of motion, motor timing, and velocity/muscle strength) during music making so that a quantitative record of rehabilitation progress can be captured. When these systems are combined with existing music software programs, the music therapist can address multiple goals: psychotherapy, neuro-cognitive, social and physical.

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Provisional Programme

FRIDAY		
9.00	*Registration and refreshments*	
9.30	Conference welcome. ***Mr Angus Somerville, Chief Executive Royal Hospital for Neuro-disability*** ***Dr. Wendy Magee, International Fellow in Music Therapy, Institute of Neuropalliative Rehabilitation***	
9.45	Keynote Presentation - **Brain-Computer Music Interfacing: From Basic Research to the Real World of Special Needs - *Prof Eduardo R. Miranda UK***	
10.45	*Morning Refreshments*	
11.15	Plenary Sessions – Clinical Practice	
	A Dynamic Sonification Device in Improvisational Music Therapy *Dr Alan Lem, Dr Garth Paine & Dr Jon Drummond, Australia*	**An Overview of Assistive Technology for People with Complex Needs** *Jane Bache, RHN, UK*
	Technology for Contingent Music to Improve Feeding of Premature Infants *Jane Standley USA*	**Cognitive, Communicative and Muscular Training with Touch-sensitive Switches** *Silke Jochims, Germany*
12.15	Plenary Sessions – Engineering & Design	
	A Low-end Device to Convert EEG Waves to Music *Adrian Attard Trevisan & Lewis Jones, UK*	**Research Paper: Engaging Industrial Designers with Music Therapy** *Professor Eddie Norman & Liz Norman, UK*
	An Embodied Music Control Interface for Cochlear Implant Users *Leon van Noorden, Marc Leman & Ingeborg Dhooge Belgium*	**Meeting Complex needs: Designing assistive Devices in Collaboration with Music Therapists** *Gerard Cullen, RHN, UK*
13.15	*Lunch with Poster Presentations* **Investigating Absolute Pitch in Children and Young People with Congenital Visual Impairment** *Maria Dimatati & John Downing, UK* **Lips Movement Recognition Software and Games in Oral or Non-Speech Motor Therapy.** *Rebecca Gillen, Giuseppe Torre, & Dr Simon Gilbertson, Ireland*	
14.30	Plenary Sessions – Workshops	
	Sound Initiated Drawing and Memory Impairment *Brenda Hutchinson, USA*	**Clinical Applications of Recording in Music Therapy** *Nir Sadnovik, USA*
15.30-16.30	**Communication Devices in Music Therapy with Children who are Visually Impaired/Multiimpaired** *Lisa Martino & Michael Bertolami USA*	**Music Improvisation Software: An Interface for Severely Impaired Children and Adults.** *Pauline Oliveros, Leaf Miller, Zevin Polzin, USA, Sergio Hazard, Chile, & Dr. Gillian Siddall, Canada*
16.30 – 17.00	Discussion panel	
18.00	Delegates are invited to attend an informal dinner at a local pub (cost not included in delegate fee)	

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SATURDAY		
8.30	*Registration and Refreshments*	
9.00	Keynote Presentation - **Musically Assisted Rehabilitation Systems: utilizing music technology to enhance therapy - *Dr. David W. Ramsey*** *USA*	
10.00	Plenary Sessions – Clinical Practice / Measurement & evaluation	
	Repetitive Sensumotorical Hand-Function Training for Paretic Upper Extremities with Multimodal Feedback *Florina Speth, Uwe Seifert & Stefan Mainka, Germany*	**Integrating EEG and First-Person Reports: Examining the Guided Imagery and Music Experience** *Andrea Hunt, USA*
	Music Therapy and Technology in Neuro-rehabilitation - Practice, Pitfalls, and Possibilities *Julian O'Kelly, RHN, UK*	**Sounds of Intent: Software to Gauge Musical Development in Complex Needs Children** *Angela Vogiatzoglou, Dr. Evangelos Himonides, Prof Adam Ockelford, Prof Graham Welch, UK*
11.00	*Morning Refreshments*	
11.30	Plenary Sessions – **Music Technology in Therapeutic and Health Settings**. *Dr. Wendy Magee* Discussion panel to include keynote speakers	
12.30	*Lunch with Poster Presentations*	
13.30	Plenary Sessions – Workshops	
	Dynavox Orchestra: Augmentative Communication Devices for Music Making in Music Therapy *Jennifer Townsend, James Maxson USA*	**Jamboxx: Giving those with Disabilities the Ability to Play Music and Create Art** *Michael Di Cesare, USA*
14.30	**The Impact of Music Technology on the Clinically Improvised Process of Music Therapy** *Dr Joseph Nagler USA*	**Computers, Music Software and Music Therapy with Neurological Conditions** *Alex Street UK*
15.30-16.00	Closing Session: Emerging Collaborations and Discussions	

For enquiries regarding the content of the conference or if you are interested in exhibiting/sponsorship opportunities for this conference please contact:

Phili Denning, Conference Organiser
E: institute@rhn.org.uk Tel: +44 208 780 4500 x5140

http://www.rhn.org.uk/nec_001.asp#5

Organising Committee: ***Chair -Dr Wendy Magee,*** *International Fellow in Music Therapy, Institute for Neuropalliative Rehabilitation, RHN;* ***Mark Baker,*** *MSc, PGDN (Distinction), DHSM, BNur, International Fellow in Nursing in Complex Disabilities, Institute of Neuropalliative Rehabilitation, RHN;* ***Sophie Duport*** *PhD, Head of Research, RHN;* ***Kate Heath****, GRSM, LRAM, Music Therapist, Newham Centre for Mental Health, East London NHS Foundation Trust;* ***Mark Hildred****, MEng MSc MIET, Creative Director, Apollo Creative;* ***Damien Murphy*** *MSc (Hons), MSc, DPhil, MAES, Senior Lecturer, AudioLab, University of New York;* ***Diane Paterson****, BA Hons, PGCE, LRSM, Inclusive Music Team Leader, ArtForms - Leeds*

Scientific Committee: ***Chair - Dr Wendy Magee,*** *International Fellow in Music Therapy, Institute for Neuropalliative Rehabilitation, RHN;* ***Sophie Duport*** *PhD, Head of Research, RHN;* ***Professor Jaako Erkkilä*** *PhD, Head of Music Department, University of Jyväskylä;* ***Andy Hunt*** *PhD (MusTech), Senior Lecturer, Electronics Dept, University of York;* ***Suzanne Hanser,*** *Ed.D., MT-BC, Chair Music Therapy Department, Berklee College of Music;* ***Professor Adam Ockelford*** *PhD ARAM, Professor of Music, Roehampton University;* ***Elaine Streeter,*** *AGSM, PGCS, MA Music, PGDip Music Therapy, Adv Dip Psychodynamic Counselling, Senior Research Fellow in Music Therapy, Dept of Music, University of York*

Music Technology: Solutions to Challenges
REGISTRATION FORM

Delegate Fee before April 9th £200 +VAT (£235) ☐ Student Fee Before April 9th £140 +VAT (£164.50) ☐
Delegate Fee after April 9th £250 +VAT (£293.75) ☐ Student Fee after April 9th £200 +VAT (£235) ☐

Title: First Name: Surname:

Job Title: Organisation:

Address:

Postcode

Telephone: Fax:

Email:

Special dietary or other requirements:

PAYMENT METHODS:-

Cheque: ***Please make cheques payable to 'The Royal Hospital for Neuro-disability' and send for the attention of Phili Denning***

Credit Card: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

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Valid From ☐☐☐☐ Expiry Date ☐☐☐☐ Issue/Security ☐☐☐☐

Telephone Number : .....

Signature: ..... Date: .....

BACS: Please send to the following Natwest Bank, RHN General Account

Sort code 60 20 09 Account no. 41655273

IBAN No. GB72NWBK60200941655273 Swift Code NWBKGB2L

Please send your BACS remittance form as confirmation of payment.

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General Information

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Exhibition/Delegate Pack Insertion Booking Form

Company Name:	
Address:	
Contact Name:	
Telephone:	
Email:	
Fax:	

Exhibition Space Booking	☐ **Please tick**
I enclose a cheque* for £250 + VAT (£293.75)	☐ Please tick
Please send an invoice.	☐ Please tick

Name of Attending Representative (Please note we can accept a maximum of two representatives)	
Special Requirements: A table, chairs and electrical powerpoint are provided)	

Delegate Pack Insert Booking	☐ **Please tick**
I enclose a cheque* for £100 + VAT (£117.50)	☐ Please tick
Please send an invoice.	☐ Please tick

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Please send your completed form and payment to:

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Royal Hospital for Neuro-disability, West Hill, Putney London SW15 3SW

Tel: 0208 780 4500 x5140, Fax: 0208 780 4569, Email: institute@rhn.org.uk

Please return completed booking forms no later than April 23rd 2010.

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16.00-16.45	Plenary Session: Emerging Collaborations and Discussions
18.00	Social Event
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