ANEXO 3:

POSTER[3]– setembro/2016
ISSTA 2016
International Festival and Conference on Sound in the Arts, Science and Technology
Ulster University, Magee Campus and Partner
Venues In Derry/Londonderry - Irlanda

The Body as Space Transition Relations and Expressive Gesture Design

Brief motion analysis in the context of development of a digital musical instrument (DMI)

DIGITAL SOCK

Slavisa Lamounier & Paulo Ferreira-Lopes
Portuguese Catholic University - EA
CITAR - Porto

ABSTRACT

Our research project is focused on the study and development of a digital musical instrument and its interactive capability. Divided into two structural lines, investigates: a) the creation of the movement as a form of expression, communication and interaction; b) development of an instrumental prototype, where the sound is controlled by the feet movements, called Digital Sock.

The analysis of the movement that investigates the body as a transitory space of relations and the formation of the expressive gesture, aims to guide our steps for the design of the instrument, in order to minimize possible discomfort during the handling of the gestural interface and enhance the act of the instrument during a performance.

The methodology used during the first phase was:

a) Capturing gestures, held in motion capture laboratory, School of Arts (Portuguese Catholic University), attended by thirteen volunteers, men and women, of different ages.

---

[3] http://issta.ie/wp-content/uploads/ISSTA-2016-programme-booklet-WEB.pdf

b) The analysis of gestures, which gave priority to the interpretation of data, biomechanical analysis and discourse analysis related to the experience report (psychological analysis).

The second phase were taken into account the ergonomic evaluation criteria established by Bastien & Scapin (1993). This study aimed to establish some assumptions that will guide the design of the prototype instrument.

Keywords

Gestural Analysis; Music and Expressive Gesture; Movements of Capture; Ergonomics; Gestural Interface; Digital Musical Instrument (DMI); Interactivity;