

Canadian University Music Society

Proposal for a round table

Challenging 300 years of Piano Teaching Practices with 21st Century Research

Title: Biomechanical Implications Inherent in Descriptions of Piano Technique

Researchers: Donald Russell, Mechanical and Aerospace Engineering, Carleton University; Christianne Vant, Mechanical and Aerospace Engineering, Carleton University; Jason Ray, Music, University of Ottawa; Julia Brook, Music, University of Ottawa; Gilles Comeau, Music, University of Ottawa

Speaker: Donald Russell, Mechanical and Aerospace Engineering, Carleton University;

Abstract: A wide variety of approaches to piano instruction exist and each describes the movements and technical aspects of piano performance in a different way. The published descriptions describe the movements underlying "proper" piano technique with varying levels of detail. In addition, because of the need to communicate these techniques to students who generally do not have a background in biomechanics the information is expressed by using metaphor. The biomechanical requirements of each approach were identified and summarized after careful study and evaluation of the published descriptions. The results clearly show extensive similarities as well as striking differences between the approaches. We also believe that in many cases apparent differences exist only in terms of the manner in which the movements are described or learned. When the techniques are well developed and applied to piano performance we hypothesize that a number of the differences between the approaches lose significance. This presentation will summarize the results, focusing on the major differences and similarities between the implied biomechanical requirements for piano technique inherent in each of the studied approaches.