****

**March 23, 2012 – Interdisciplinary Research Collaboration Fair**

**University of Maine**

**Stephen Gilson, PhD**

Coordinator and Professor of Interdisciplinary Disability Studies

Professor Social Work

Cooperating Faculty School of Policy and International Affairs

University of Maine

Senior Research Fellow. Ono Academic College., Kiryat Ono 55000 Israel

**Elizabeth (Liz ) DePoy, PhD**

Professor of Interdisciplinary Disability Studies

Professor Social Work

Cooperating Faculty, Department of Mechanical Engineering

Cooperating Faculty School of Policy and International Affairs

University of Maine

Senior Research Fellow. Ono Academic College., Kiryat Ono 55000 Israel

**Healing Disjuncture Through Interdisciplinary Research**

In this exhibit, we showcase 4 interdisciplinary projects on which we are currently collaborating. Disjuncture Theory synthesized with design and branding scholarship (DePoy & Gilson, 2011) create the intellectual foundation that guides the thinking and action for each of these studies.

Engineering Laboratory Architecture: A Study of Participation Disincentives

This project investigates the role of laboratory architectures and image in facilitating or limiting participation in engineering for the full diversity of potential students. A proposal for this study has been invited by NSF and will be submitted in June, 2012. The theory and research design will be summarized.

ServiceBot: An assistive robot

This robotic device assists carrying and placement of items through remote person following, computer aided navigation, and whimsical design.

RRO:\_Robotic Rowing Orthosis

RRO involves the research and development of an exoskeletal device. Based on the translation of motion capture into robotics, this project is currently in the prototype design phase. The ultimate desired outcome of RRO is full participation in fitness in non-segregated settings for the full range of individuals with diverse levels and methods of strength and mobility respectively

ZG Jogger: The Intersection of Design and Outdoor Fitness Participation

This project involves the research and development which results in stylized three wheeled device to provide standing and balance support during distance walking, hiking, jogging and running.

Reference:

DePoy, E., & Gilson, S.F. (2011). Studying disability: Multiple theories and responses. Thousand Oakes, CA: Sage Publications.

Ez Jogger. Department of Mechanical Engineering. Senior Capstone 2011-2012. (2012). Retrieved https://sites.google.com/site/ezjogger1/

Gilson, S.F. & DePoy, E. (2011). The student body. In A. C. Carey and R. K. Scotch (Eds.) Disability and Community In B. Altman and S. Barnartt (Series Eds.) Research in Social Science and Disability (Vol. 6) (pp. 27-47), Bingley, United Kingdom: Emerald Publishing Group.

ReNeu Robotics Lab. Rehabilitation and Neuromuscular Robotics. (2010, November 16). Retrieved from http://www.umaine.edu/mecheng/Deshpande\_Lab/html/Research/assistiveRobot.html

Zero Gravity Jogger. Department of Mechanical Engineering. Senior Capstone 2010-2011. (n.d.). Retrieved http://www.umaine.edu/MechEng/peterson/Classes/Design/2010\_11/Groups/Jogger/index.html