EDPY 597 Integrating Technology Across the Curriculum

Dr. Mike Carbonaro is a professor of Educational Psychology at the University of Alberta. His research can be classified into several intersecting areas that include: curriculum design, computer games in schools, blended instructional delivery, robotics, computational modeling, health sciences interprofessional education, and, Aboriginal education. Prior to his university appointment, Dr. Carbonaro spent four years in industry developing simulation-based training systems for the Canadian military. His early research was on the development of neural network models of cognition. In 2001 he introduced the first university level Education course in Canada that explored the use of LEGO robotic technology at the k-12 level creating momentum for widespread use of this technology throughout the province. Since 2004 he has been collaborating with colleagues in the Department of Computing Science, Drs. Jonathan Schaeffer and Duane Szafron, on the ScriptEase research project www.cs.ualberta.ca/~script/. In 2005 he designed and implemented a Faculty of Education Master's program in area of Educational Technology that has graduated 29 students. From 2006-2010 he helped to develop a new graduate interprofessional program in Health Sciences Education and the creation of an educational research facility Health Sciences Educational Research Commons (HSERC). He is part of a research team that was awarded a major grant for the development of simulation-based training scenarios in Health Sciences. Dr Carbonaro also led a project to develop new blended delivery instructional models for interprofessional health sciences education. Since 2010 Dr. Carbonaro (with colleagues Drs., Stroulia and Szafron in the Department of Computing Science) has been a Collaborative Network Investigator (CNI) on two Graphics Animation and New Media (GRAND) projects. GRAND is a federally-funded Network of Centres of Excellence that supports 34 research projects divided into 5 cross-pollinating themes involving researchers at 25 universities across Canada with more than 60 industry, government, and nonprofit partners. Dr. Carbonaro's two CNI projects are: 1) BELIEVE: Believable Characters, Behaviors and Stories in Story-based Games; 2) HLTHSIM: Multi-Modal Augmented Reality for Training Healthcare Professionals. Research from these two GRAND projects has produced 12 papers published in top venues. Recently he has been collaborating with Aboriginal colleagues at Blue Quills First Nations College to develop e-pedagogical strategies to support the Faculty of Education cohort-based Aboriginal Teacher Education Program (ATEP).