Games For Health

Games for Health is a project produced by The Serious Games Initiative, a Woodrow Wilson International Center for Scholars effort that applies cutting edge games and game technologies to a range of public and private policy, leadership, and management issues.

The Initiative founded Games for Health to develop a community and best practices platform for the numerous games being built for health care applications. To date the project has brought together researchers, medical professionals, and game developers to share information about the impact games and game technologies can have on health care and policy.

In addition to the Games for Health conference, the Initiative is working to catalog use of games in health care, to assist current development, collect best practices, and promote the development of games and game technologies.

Co-hosted by the ADL Academic Co-lab

The Academic Advanced Distributed Learning (ADL) Co-Lab serves as the focal point for universities and colleges in promoting high quality, reusable content for distributed learning. This Co-Lab is the ADL academic link to test, evaluate and demonstrate ADL-compliant tools and technologies to enhance teaching and learning. It also serves as an academic demonstration site for ADL tools and content, including those developed by the federal government, academia, and industry.

Working as a partner with the Department of Defense ADL Co-Laboratory in Alexandria, Virginia and other two node Co-Labs, the Academic ADL Co-Lab supports and collaborates on the research, development, demonstration, assessment, and implementation of ADL tools and content on projects of relevance to participating organizations.

Co-hosted by the Federation of American Scientists

Games For Health 2004

September 16-17
Madison, Wisconsin

Registration is now open!

Click Here for Complete Information

About Conference
Games For Health, The Academic ADL Co-Lab, and The Federation of American Scientists, announce the First

Demo Room & Promotional Sponsors
share research results, and explore ideas that might improve health care administration and policy.

**Friends**

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Annual Games for Health Conference which will take place September 16-17, 2004 in Madison, Wisconsin.

This first ever gathering of game developers, researchers, and healthcare experts will spend two-days discussing applications of games, and game technologies to a variety of healthcare fields.

Applications for direct patient care, therapy, will be shown as well as health education, policy, and management ideas.

If you are interested in being a sponsor please contact Ben Sawyer.

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**Official Conference Program 09/01/04**

A **Word Document Version** with times is now available!

**Day 1**

**What are the possibilities of Games for Health?**

During this panel speakers will explore the emerging market, and uses of games in healthcare. They will explain why games can be seen as powerful tools, where they are most applicable, and what both the limits and opportunities presented by current technologies and market conditions are.

David Rejeski (Moderator), Woodrow Wilson International Center for Scholars

Brenda Wiederhold, Virtual Reality Medical Center

Dr. James Rosser, Beth Israel Medical Center

Debra Lieberman, University of California, Santa Barbara

We are proud to have as co-hosts the Federation of American Scientists' Learning Federation Project [www.thelearningfederation.org](http://www.thelearningfederation.org)

The Federation of American Scientists is a nonprofit research institution with a sixty year history of providing science and technology analysis. Its Board of Sponsors includes nearly one-half of the U.S. Nobel Laureates in science. Its current major initiatives include: strategic security, information technologies for education and training, and energy and the environment. For the past three years its Learning Federation project staff has worked with national experts in learning science and information technology to define a national research plan to develop the next generation of learning systems.

The work of the Learning Federation has been supported by Hewlett Packard, Microsoft, Carnegie Corporation of New York, the Digital Promise Project, the National Science Foundation, and the Department of Defense.
1000 abstracts later, what's been done, why, and how?

Working with the Games for Health project, Erard has combed through over 1000 medical journal abstracts to assemble a summary presentation of what the life of games has been in the medical field up until 2004. Erard will present this data, and show what trends, and categories of use provide insight for current and future applications.

Michael Erard (Speaker), University of Texas, School of Nursing

Games which help with phobia treatment (Demo)

During this technology demonstration attendees will learn how off-the-shelf game technology is being used as-is, and in modified form by the Virtual Reality Medical Center to help patients overcome everyday phobia issues.

Brenda Wiederhold, Virtual Reality Medical Center

Yourself Fitness (Fitness Game for Xbox and PC) (Demo)

Fitness tapes and DVDs have been stalwart sellers in the video field for some time. Recently Dance-Dance Revolution has been promoted as a vigorous workout activity. Now comes the first major effort to bring serious fitness training to traditional game consoles. The producers behind this Xbox/PC/PS2 exercise title will demonstrate both a unique title, and marketing effort to create a non-linear exercise simulation using game technologies.

Phineas Barnes, Respond Design

BioFeedback Game Design (Journey Through Wild Divine for the PC)

Wild Divine is a off-the-shelf game system aimed at using a biofeedback interface and game design aimed at helping the user develop stress reduction exercises and meditative states. In this demo representatives from Wild Divine will show how the system works, what game design ideas have evolved to enhance the goal of the product and work in the biofeedback realm, and how the product has been put to use in the field.

Bill Corwin, Wild Divine

Cardiac Arrest Training Game (PC)

Legacy Interactive is best known for creating games based on popular TV series such as Law & Order, and ER. As people from organizations began playing these strong-selling products they began to call Legacy and see if their realistic occupation games could be put to use in new ways including the law-enforcement and medical fields from which their first two major entertainment efforts hailed. This resulted in a new division at Legacy focused on serious applications of their design and development work. One of
the first efforts is ACLS Interactive, a cased-based simulation that allows paramedics and other medical professionals to practice Advanced Cardiovascular Life Support skills.

Craig Brannon, Ph.D., Legacy Interactive

**Game-based training for clinical interview and intervention**

**Work** Extempo System develops game-based agents for use in a variety of training, online learning, and interactive demonstrations. Among the companies efforts are two game-based interview games that they've developed for utilization in clinical interviews concerning interventions for things such as alcoholism, and smoking. Players use Extempo's products to practice their patient interviewing and interaction skills in an effort to refine proven techniques that enhance real-world intervention success.

Barbara Hayes Roth, Extempo Systems

**Development Guidelines for Health Games**

Games developed for healthcare use carry with them specific design and development needs. The level of accuracy must be extremely high if not without question. They must be able to meet specific outcome goals of the sponsoring organization, and testing may involve high-end clinical trials, and other regulatory hurdles. This panel comprised of four developers who have built or are building healthcare games will explore the key cognitive, regulatory, ethical, and technical issues that define this genre of serious games vs. their commercial entertainment, or non-medical serious cousins.

Kurt Squire (Moderator), University of Wisconsin

Panelists:
Barry Silverman, University of Pennsylvania
Doug Whatley, Breakaway Games
Mary Derby, Pulluin Software
Noah Falstein, The Inspiracy

**Why the monkey can't do it: What the medical profession can teach us about game-based medical training**

Flight simulation and part-task skills training systems are often held up as models for computer-based simulations and games for medical training. However, such efforts fundamentally misunderstand the practice of medicine and how people learn to become skilled clinicians. Dr. Shaffer discusses a design for an interventional cardiology training system as an opportunity to look more deeply at the nature of medicine and medical training, at paradigms of learning, and at design principles for effective games and simulations for clinical training. Dr. Shaffer pays particular attention to the design practice of task decomposition and why it is not an appropriate model for learning in complex domains such
Improving surgery outcomes with videogame exercise
In a widely publicized finding, Dr. James Rosser, showed that exposure to a variety of videogames provided the laparoscopic surgeons who spent the time with them made as much as 1/3 fewer mistakes resulting in a higher-quality surgery. Not only did the study examine the idea of general exposure to games but it also looked at the role they could play as immediate eye-hand coordination warm-up tools immediately prior to surgery. In this speech Dr. Rosser will explain how the study came about, what its findings were, future efforts to examine the nuances of this link, as well as provide insight into the future of minimally invasive surgery and technology.

Dr. James Rosser, Beth Israel Medical Center

Day Two

A Survey of Every Commercially Produced Health Game
Commercial games have long used healthcare as primary or secondary subject matter in their games. In this presentation Ben Sawyer from the Serious Games Initiative will present a round-up of all these titles dating as far back as Microsurgeon on the Mattel Intellivision. The talk will examine what from these games may provide useful lessons to their serious cousins as well as explore the exposure to the healthcare profession and general healthcare information people have obtained through playing these games.

Ben Sawyer, Serious Games Initiative

Glucoboy: A Gameboy based Diabetes Monitoring Solution (GameBoy Advance)
Glucoboy is a hardware and software based-solution which allows the GameBoy Advance to be used as a diabetic monitoring solution. Furthermore, by providing game-based incentives to administer the proper frequency of testing and correct blood sugar levels it aims to enhance compliance by patients with their prescribed diabetes control solution.

Paul Wessel - CEO and President, Guidance Interactive Healthcare

A Series of Interactive Health Media Games (PC & Web)
Michigan State University's game-development degree program has worked to develop several health-education games including one on nutrition. Brian Winn from the program will demonstrate this program, and several new ones under development sharing specific and cross-program design lessons and implementation
insights.

Brian Winn, Michigan State University

**Personal Investigator: A Game Tool for Psychological Interaction (PC)**
Researchers at MediaLab Europe have been working on game-based 3D worlds as possible interactive tools that could be used by psychologists/psychiatrists and their younger patients. The games work as a investigatory tool whereby patient and therapist can work together in a game-environment providing new ways of communicating and potentially exploring issues that may lead to new analysis and insight by the therapist.

Mark Matthews & David Coyle, MediaLab Europe

**The Combat Medic Design in America's Army**
America's Army is one of the largest serious game productions of its kind. In the game players may take on the role of a combat medic which requires substantial in-game orientation about the role of combat medics. In this presentation Russell Schilling, who contributed to the design of the combat medic portion of America's Army will detail this portion of the game.

Russell Schilling, Office of Naval Research

**Health Emergency Simulation (PC)**
Breakaway Games is a major game development studio located in the Baltimore, MD suburbs. It has completed a number of commercial entertainment, and government backed non-entertainment games. During this presentation Doug Whatley from Breakaway will demonstrate their first health-related serious games focused on health emergency management issues. The game is currently being developed from an as-yet-announced government agency.

Doug Whatley, Breakaway Games

**Town Hall & Open Mic**
We will end our two-day conference with an session devoted entirely to audience participation. Offering a chance for feedback, last minute announcements, short introductions of projects not covered, and the chance to respond to questions the conference organizers have prepared for registrants.