



# Sharing Knowledge in Second Life

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# Generations Share Differently

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ 1930-50's era generation
  - Focus on society
  - Friendships are forged through adversity
- ◆ 1960-70's era generation
  - Focus on community
  - Friendships forged through identification with a cause
- ◆ 1980-90's era generation
  - Focus on the individual
  - Friendships forged through individual goal accomplishment
- ◆ 2000's era generation
  - Focus on common interests
  - Friendships are created or thrive virtually...





# Making the Network Matter

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ Social networks are critical to organizations retaining and enhancing their critical knowledge yet have been left to grow organically
  - Undocumented growth puts your company at risk if key people leave
  - Networks can be the primary means of doing business (China--guanxi)
- ◆ Social and intellectual capital is developed through reciprocity
  - The way in which social networks are instantiated reveals the ways in which social capital is realized, such as friendship (one to few) vs. virtual communities (one to many)
- ◆ Trust is built over time and shared experiences
  - Personal experience (“I know you”)
  - Shared experience (“We both worked on the same project”)
  - Transfer of trust (“We know the same person who trusts us”)
  - Shared values (“We agree to operate by the same rules”)
- ◆ Given all the emphasis on knowledge sharing, there’s a counterbalance with security of information (legal and personal)
  - Will this be used against me or my organization for competitive advantage?



# Virtual Worlds - Potential Benefits

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ **Increased efficiency** via reduced non-value-added travel
- ◆ **Reduced costs** by using emerging standards and infrastructure
- ◆ **Greater effectiveness** via quick trial-and-error of new concepts
- ◆ **Better learning** via interactive and immersive training sessions and seminars... from home base
- ◆ **Improved creativity** via rapid brainstorming sessions
- ◆ **Employer of choice** for GenY and beyond
- ◆ **Higher win record** through more effective proposals, quicker and better partnering, and increased visibility
- ◆ **Sustained budgets and good-will** through increased visibility

**“The best way to predict the future is to create it” (P. Drucker)**



# Virtual Worlds in Education

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ From Johns Hopkins University, Carey Business School, Master's Program in Advanced Topics in Organizational Learning (May'07)
  - “What's new in Organizational Learning and Knowledge Management”
  - Guidelines. Research and report on cutting-edge aspect such as: virtual reality [e.g., Second Life], video [e.g., YouTube], social networking sites [e.g., LinkedIn, Lotus Connections] intranet data mining [e.g., Autonomy], open source computing [e.g., Wikipedia, Citizendium.] Discuss the product/service and evaluate its usefulness as a method for organizational learning within and/or outside of your organization. Consider cost, learning curve, congruence with the organization's culture, most suitable industries, etc. in your evaluation.
  - Podcast length: 10-12 minutes.
  - Post a text abstract in Blackboard's Discussion Board.”



# Virtual Worlds

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ Virtual worlds are 3D immersive, persistent environments where people meet, interact, make friends, and accomplish tasks
- ◆ In part, NASA's presence in the Second Life metaverse arose from the President's Commission on Implementation of U.S. Space Exploration Policy
  - Guides the space program and inspire young people to study math, science and engineering
  - “NASA could create live-action learning modules that give players the chance to experiment with orbital mechanics, the principles of spaceflight and other space-related subjects...as learning devices for people of all ages”





# Second Life in Seconds

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ 80% of active Internet users and Fortune 500 companies will participate in a virtual world by 2011 (Gartner)
- ◆ SL is a communications technology... and free (mostly)
- ◆ Launched by Linden Labs in 2003 now has 8M residents (40,000 active at any one point) with a growth rate of >20% per month (adding 25,000 members per day)
- ◆ Linden Labs is installing 120 servers/week to keep up with growth
- ◆ Example usage
  - Participate in company events such as town halls (IBM, ...)
  - Build and test drive a virtual hotel and use the data to build a real hotel (Starwood Hotels' Aloft chain to open in 2008)
  - Promote new standards (Amazon's S3 promotion)
  - Virtual Interview Events by major corporations
  - Model Europe at +10 ft sea level (future)
  - NOAA Weather maps to model pandemics (future)





# What Are Others Doing?

## Collaborate



## Communicate



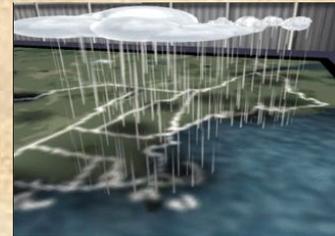
## Innovate



## Motivate



- ◆ Real Life Government in Second Life group and activities
  - NOAA, NASA, State Department, Office of Management and Budgets, Swedish Embassy, Centers for Disease Control, National Institutes of Health, Library of Congress, and more
  - Citizen participation and services
- ◆ Aerospace industry (The Aerospace Corporation, International Spaceflight Museum, University space programs, Honeywell)
  - Marketing and sponsor engagement
  - Research and development for immersive collaboration
  - Global engineering teams
- ◆ General industry
  - Support for distributed workforce for meetings and collaborative work (decreased costs, increased employee satisfaction)
  - Marketing and sales





# What is NASA Doing?

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ NASA notes that virtual worlds are an important space for action and has an agency-wide team for “NASA Immersive Synthetic Environments” (includes SL, virtual worlds, and gaming)
- ◆ NASA has four thrusts for virtual worlds
  - Mission support (modeling and simulation, collaboration, proposal development, and more)
  - Outreach (public engagement and participation)
  - Education (K-12 learning)
  - Training (internal)
- ◆ Activities in Second Life
- ◆ Current SL activities include
  - Explorer Island (led by JPL)
  - NASA CoLab
  - Launch operations training
  - Modeling and simulation for Constellation Lunar Program
  - Celebrate NASA and Explorer 1 50-year anniversaries
  - Conference/event support and planning





# Match the Avatar – Round 1

**Collaborate**



**Communicate**



**Innovate**



**Motivate**



1



2



3



A



B



C



# Match the Avatar – Round 2

**Collaborate**



**Communicate**



**Innovate**



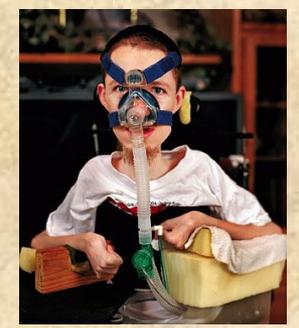
**Motivate**



1



A



2



B



3



C



# Let's Enter The Virtual World...

- ◆ Your tour guides today
  - Jeanne Holm aka Devery Barrymore
  - Charles White aka Jet Burns

**Collaborate**



**Communicate**



**Innovate**



**Motivate**





# To Go In World

## Collaborate



## Communicate



## Innovate



## Motivate



- ◆ To create an account (there is no charge)
- ◆ Go to <http://www.secondlife.com>
- ◆ Create an account
  - Select a name--that's the hard part!
- ◆ Download the application (some organizations block usage at work)
- ◆ Sign in and choose an avatar (you can always change it later, so just go with a default one to get started)
- ◆ You can either explore the orientation area or just ask for help
  - Click on the “Search” button at the bottom of the screen
  - To find NASA, select the “Places” tab and enter NASA--you'll see “Explorer Island”
  - To find Jeanne or Charley, select the “People” tab and search for Devery Barrymore or Jet Burns
    - Choose the lower right button “Add Friend” and we'll find you!



**Collaborate**



**Communicate**



**Innovate**



**Motivate**



**To participate and to learn more, go to  
Second Life and visit Explorer Island and NASA CoLab**