THE VIRTUAL EMERGENCY OPERATIONS CENTER

BY CYNTHIA NIKOLAI
INTRODUCTION

EMERGENCY OPERATIONS CENTER (EOC): SECURE LOCATION IN WHICH INDIVIDUALS COME TOGETHER TO PREPARE FOR, MANAGE, AND COORDINATE RECOVERY ACTIVITIES IN RESPONSE TO AN EMERGENCY SITUATION (E.G. HURRICANE, EARTHQUAKE, TSUNAMI)
OUR RESEARCH

IN OUR RESEARCH, WE ARE WORKING WITH MIAMI-DADE COUNTY, FL, TO BUILD A VIRTUAL EOC FOR

- TRAINING EMERGENCY PERSONNEL
- RESEARCH INTO EMERGENCY MANAGEMENT DECISION MAKING
- VIRTUAL EMERGENCY MANAGEMENT

Florida's State Agency Region Map
WORK SO FAR

- VIRTUAL EOC PROTOTYPE/PROOF OF CONCEPT
RESEARCH METHODOLOGY

- Semester of background reading into emergency management, simulation, training, decision making, etc.
- Coordination with Miami-Dade County for real world materials and procedures.
- Class on e-technology (XHTML, AJAX, CSS, PHP, SQL, Web 2.0, and Design methodology concepts).
- Observation or an exercise EOC activation.
- Upcoming: Observation of a live activation.
TECHNOLOGIES EMPLOYED

- XHTML, CSS, DYNAMIC HTML, AJAX
- PHP
- JAVASCRIPT
- MYSQL
- THIRD PARTY TOOLKITS: YAHOO UI
- VIRTUAL MACHINES: ALL DEVELOPMENT AND DEPLOYMENT IS BEING ACCOMPLISHED IN VIRTUAL MACHINES
DESIGN METHODOLOGIES EMPLOYED

☐ SOFTWARE ENGINEERING/SPIRAL DEVELOPMENT

☐ MODEL-VIEW-CONTROLLER (MVC) METHODOLOGY

☐ MENTAL MODELS ^

☐ FOUR INGREDIENTS OF APPLICATION DESIGN TO CREATE A PROTOTYPE *

☐ CONTENT, FUNCTIONALITY, AESTHETICS, UsABILITY

^BASED ON RESEARCH BY INDI YOUNG
*BASED ON RESEARCH BY CHRIS CLARK (KANEH LEARNING CENTER)
KEY FEATURES OF PROTOTYPE

- Secure Login
- Different Interfaces depending on which login you are
- Automated Scripting
- Multi-Browser Compliance
- Multimedia
  - Now: Audio
  - Future: Interactive Video
LIVE DEMO

☐ TRAINEE CONSOLE: THE PERSON WHO IS BEING TRAINED

VEOC DEMO
FUTURE GOALS

☐ TIE UP LOOSE ENDS IN WHAT ALREADY IS THERE (EG BUTTONS THAT ARE THERE BUT HAVE NOT FUNCTIONALITY)

☐ IMPLEMENT INTERACTIVE ADVISOR

☐ CREATE AGENTS TO SIMULATE HUMANS