

# THE VIRTUAL EMERGENCY OPERATIONS CENTER

BY CYNTHIA NIKOLAI

# OVERVIEW

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- INTRODUCTION
- RESEARCH METHODOLOGIES
- TECHNOLOGIES EMPLOYED
- DESIGN METHODOLOGIES
- LIVE DEMO
- FUTURE GOALS
- QUIZ

# INTRODUCTION

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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 (EQ HURRICANE, EARTHQUAKE, TSUNAMI)

# OUR RESEARCH

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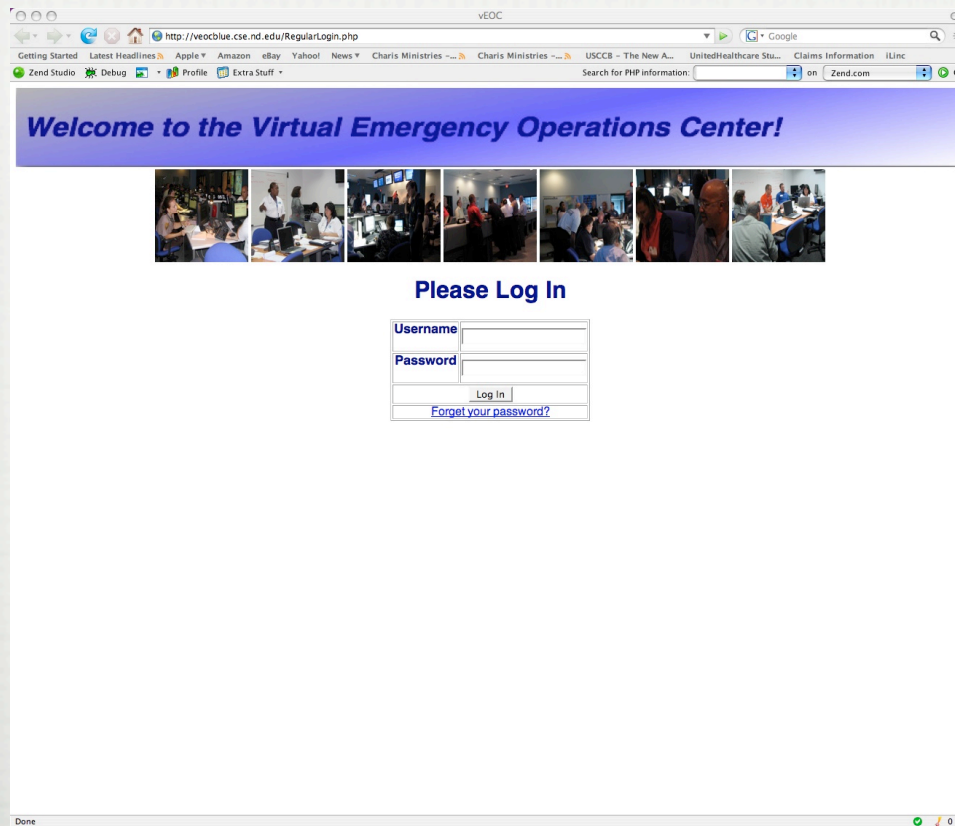


IN OUR RESEARCH, WE ARE WORKING WITH MIAMI-DADE COUNTY, FL, TO BUILD A VIRTUAL EOC FOR

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

# WORK SO FAR

## □ VIRTUAL EOC PROTOTYPE/PROOF OF CONCEPT



# RESEARCH METHODOLOGY

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- 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

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- 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

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- 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 (KANEB LEARNING CENTER)



# KEY FEATURES OF PROTOTYPE

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- SECURE LOGIN
- DIFFERENT INTERFACES DEPENDING ON WHICH LOGIN YOU ARE
- AUTOMATED SCRIPTING
- MULTI-BROWSER COMPLIANCE
- MULTIMEDIA
  - NOW: AUDIO
  - FUTURE: INTERACTIVE VIDEO

# LIVE DEMO

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- **TRAINEE CONSOLE:** THE PERSON WHO IS BEING TRAINED

VEOC DEMO

# FUTURE GOALS

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- 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

# QUESTIONS

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