

# A Mobile Technology for Just-in-Time Training of First Responders

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Nicolalde

# Workshop Overview

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## Purpose & Schedule

**Purpose:** demonstrate a mobile training platform designed to facilitate the delivery of educational content in the classroom, operational, and just-in-time settings.

**Schedule:** Mobile apps overview and hands-on demo

3:00-3:05	Introduction
3:05-3:20	App Overview
3:20-3:40	App user orientation
3:40-4:00	Attendee feedback discussion
4:00-4:20	App improvement discussion
4:20-4:30	Wrap up and session evaluation

# App Overview

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R&D  
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# Application Concept

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## Checklist Based Processes

Challenge: creative & novel way display just-in-time content on mobile device

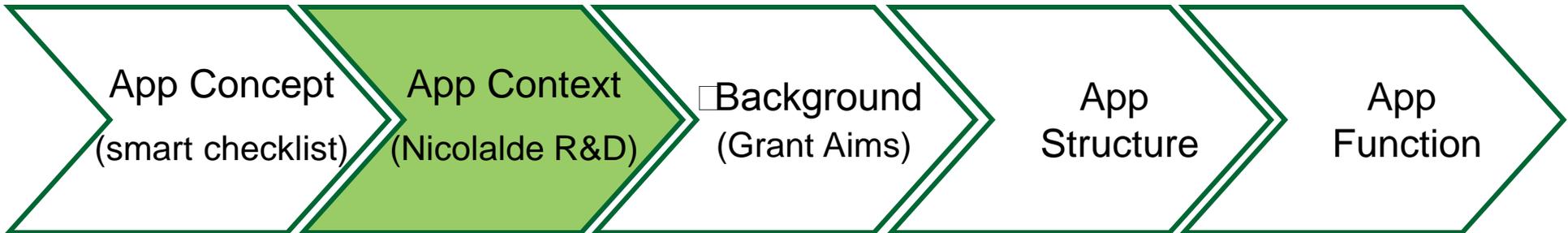
Solution: Smart checklist

- objective based content (e.g. classroom based)
- just-in-time (e.g. job action sheets)



# App Overview

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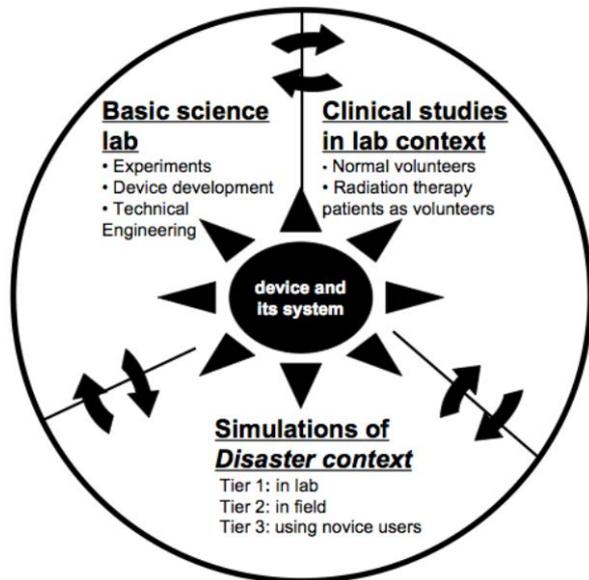


# Application Context

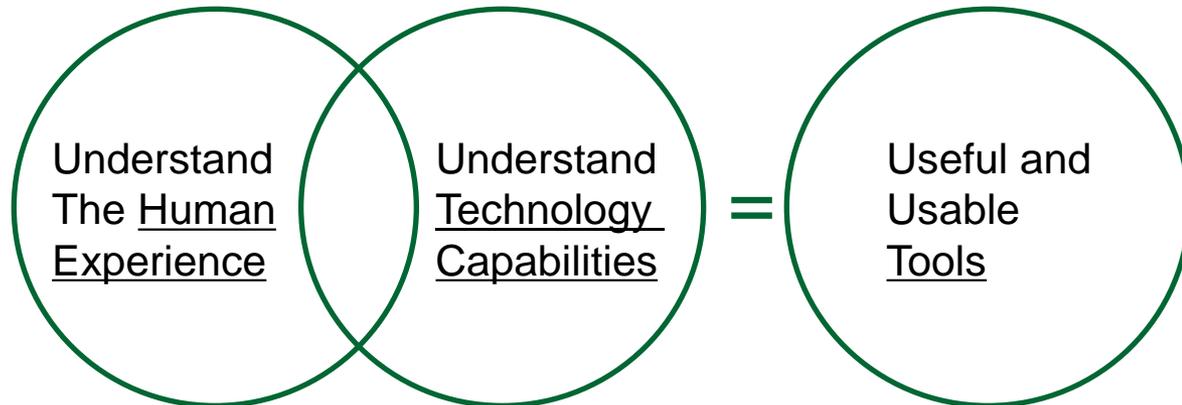
## Nicolalde R&D Overview

**Company Mission:** Develop innovative information technologies for medicine, public health, & emergency response

**Principle:** Disaster Technology Assessment Cycle

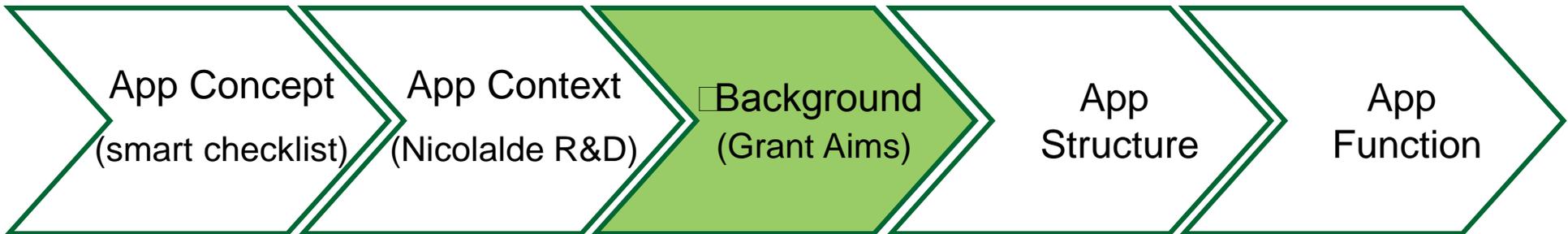


**Theory:** Participatory Design Method



# App Overview

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# Background

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## Grant Aims & Development



### Grant Aims

- NIEHS SBIR grant develop just-in-time training tools for first responders following nuclear detonation
- Aim 1: Develop population screening center e-training curricula
- Aim 2: Determine e-training delivery platform feasibility



### Development

- Applied DTAC & participatory based process
  - Design
  - Implement
  - Test
- Use subject matter expert feedback for both big picture & fine detail concepts and improvement

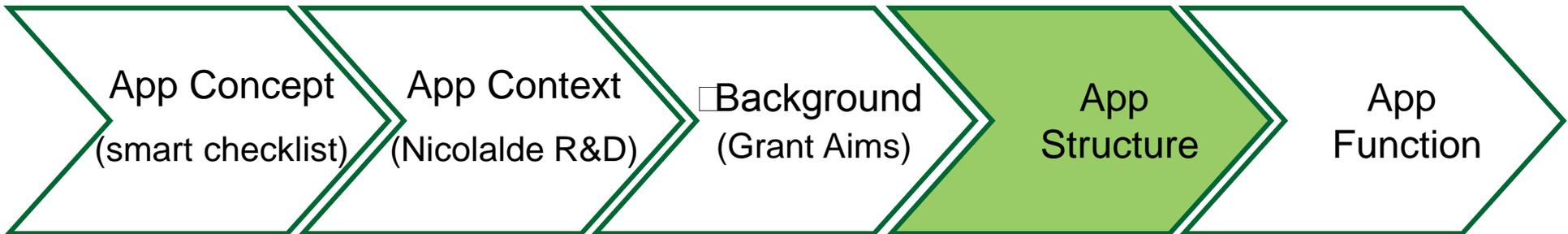


### Focus Group Results

- Immediate: highlight importance of additional features
  - user edit, printing, form fill documents, etc.)
- Strategic: envision multiple end-user purposes
  - role as tools for just-in-time training, decision support, incident management, & workforce training

# App Overview

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# App Structure

## Progress and Current

### Features

- User
- Training Content Provider
- Content Manager (backend)

### Capabilities

- mTraining Checkbox Platform: Proof-of-concept app for mobile medical unit Field Operations Guide (FOG) in iOS store
- Training Scroller: Rad user training prototype
- Backend: Automatic document data engine prototype, framework for multiple module display
- Version two of FOG ready

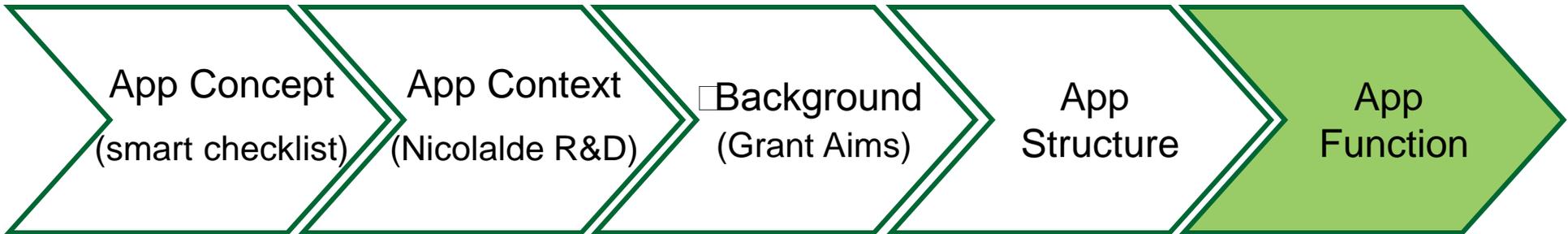
### Under Development

- Wrap-up HTML5 web version (gateway for any PC/mobile device/tablet )
- Fully functional Android version
- Refine automatic document data engine



# App Overview

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# App Function

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Download, Demo, and hands-on

iOS Store: Med Field Ops (Free)

Device Handout (but please give them back!)

100+ pg. field operations guide (FOG) for Mobile Medical Unit fit into mTraining Framework

Content in modules following original source document sections

Features: Checklists for pre-deployment, Job Action Sheets & Photoscroller instructions

Hands-on

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# Feedback

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## What are the strengths and weaknesses of the app PLATFORM?

1. Pretty Awesome!
2. Module approach (easy to find)
3. +ADD+ Search function – make field guide easier to find info
4. Weakness: device fragility (need: toughbook equivalent)
5. Need: flexibility for who gets it and what data goes in (simple in specific content and Adaption)
6. Definite need: CMS (content management) architecture
7. The field specific non-manual needs
8. Google/web search as option for expanded search outside app
9. “My favorites” – commonly referenced, bookmarked, easily found
10. Training tool features: interaction, tests, descriptions, (ex. Lockout/tagout module)

## What end-user purposes do you see this relevant for?

1. just-in-time, quality assurance/improvement, form-fill documents,
  2. Training – advanced features of scenario based hazmat response (tasks – weather forecast, ID, Next steps and scenario injects) – prompt user data and branching scenarios
  3. Make response faster ; evaluation scenarios (media use) to present cases and lessons learned
  4. Evaluation (test, post-training survey, what they learned)
  5. Refresher on already completed training
  6. Real-time evaluation (quizzing, learning reinforcement)
  7. Source list and update (govt, local, industry) – the role of favorites/pertinent/tagged sources
  8. References for common needs (hazard ID, PPE, manuf., WISER)
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# Feedback

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## Suggestions for app revision?

1. Search function
2. List view and icon view
3. Two different apps: training specific and manual type; user specific presentation (classroom, first responder, IC @ command post)
4. User application in the field and training application, and the trainer manager side (difference b/w classroom and operational)
5. Distinction b/w information, setting and appropriate delivery (device, presentation, UI)
6. Matching training w/ competency – track completion and send to database(s) used on site (e.g. local worker qualification profile)
7. Social networking (internal and larger [FB, wiki, twitter, tumblr, discussion, etc.]

## Big picture input for future features and end-user purpose?

1. Potential in it –
2. Checklist and its potential (first aid, CPR, etc.)

## Today's Format?

1. More time to demo devices
  2. More than one demo
  3. Get into it and use it – give a scenario and put to work (case study/scenario - practical)
  4. Keep going in right direction
  5. Plug ipad into projector
  6. Example content sources
  7. Participatory based process
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# Thank you

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