



# Kinect Ballroom Dance

Danny Tan, Elena Gasparini,  
Danube Phan, Timothy Zhu,  
Rohan Ramakrishnan

Group: Elephants  
CS 160, Spring 2012



University of California, Berkeley

# Organization of Talk

- Project Overview
- Project Goals
- Representative Tasks
- User Interface
  - Prototype demo video
  - Changes from last iteration
- Summary/Conclusion



# Project Overview

- **Kinect Ballroom Dance** gives feedback to ballroom dancers while they are practicing, with a focus on ballroom technique.
- *Scenario:* A beginning ballroom dancer wants to practice outside of class, without an instructor/partner
  - At home
  - Alone/by themselves

# Project Goals

- *Problem:* Dancers need **FEEDBACK** when practicing!
  - Beginners may not know what to focus on
  - Need the knowledge of an expert
- *Goal:* Provide dancers feedback while they
  - Learn and practice dance posture
  - Learn and practice dance figures
  - Learn and practice dance sequences

# Representative Tasks

---

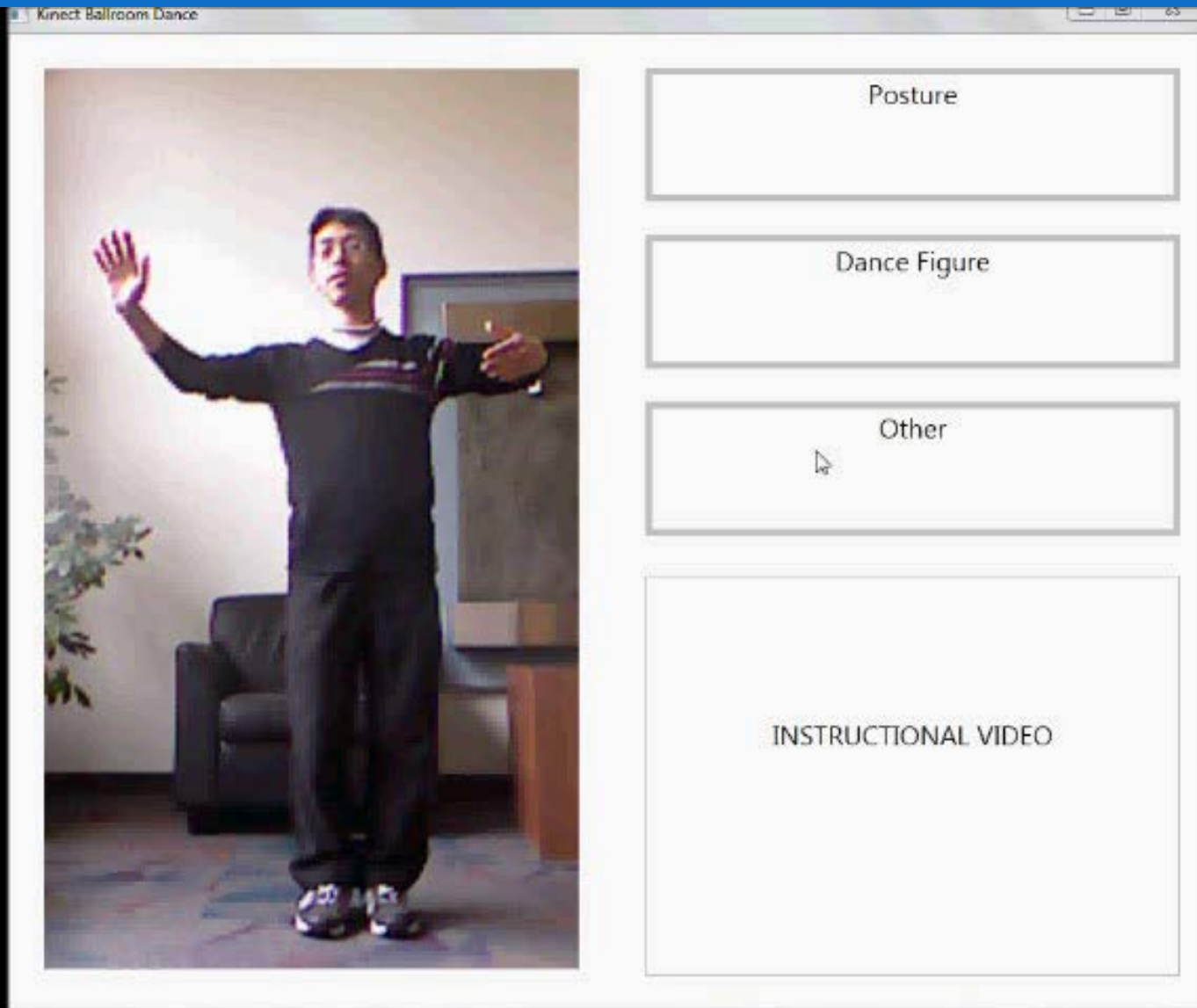
- Learn and practice dance posture
  - Easy task
  - Standard ballroom posture for leaders
- Learn and practice dance figures
  - Moderate task
  - Closed change figure in Waltz for leaders
- Learn and practice dance sequences
  - Difficult task
  - Cha-cha New Yorker sequence

# User Interface

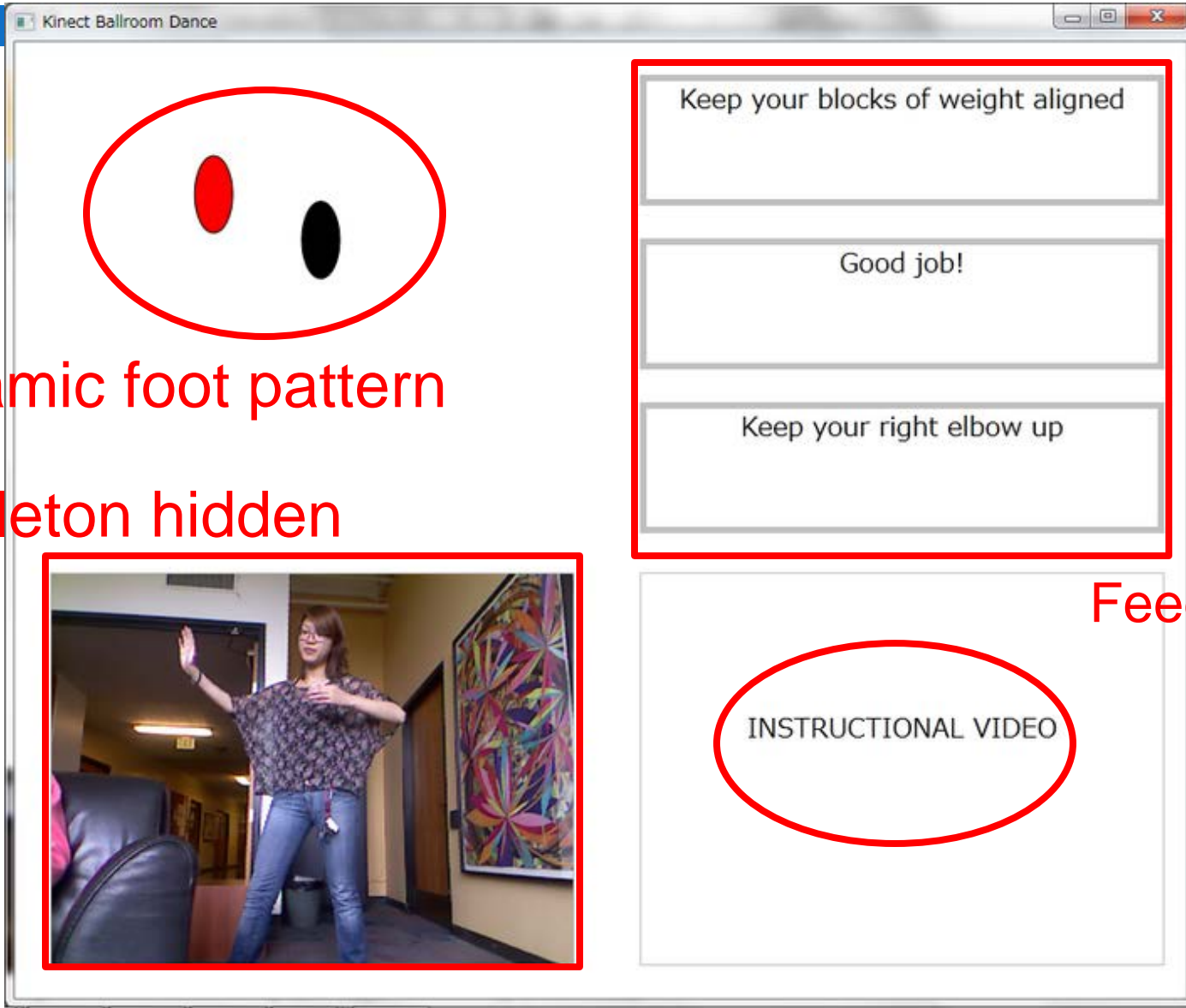
---

- Important components:
  - Menu
  - Dance posture
  - Dance figures/sequences
  - Feedback screen
- Key changes from previous iteration

# User Interface – Prototype demo



# User Interface – Key changes



Dynamic foot pattern

Skeleton hidden

Feedback



# Summary/Conclusion

- **Success:** Prototype was able to provides dynamic feedback based on skeleton joints
  - Posture, feet positions, weight transfer
- **Limitation/Next Step:** Need to track coordination of multiple body parts to give very good feedback
  - Focused on spine, feet, and arms
  - Need better feedback based on legs and hips

# Contact information:

- Danny Tan, dantan@berkeley.edu
- Elena Gasparini, engasparini@berkeley.edu
- Danube Phan, danubevictoria@berkeley.edu
- Timothy Zhu, timothy.zhu@berkeley.edu
- Rohan Ramakrishnan, rohan.ramakrishnan@berkeley.edu

