

The VIGO Architectural Model

Manipulating objects that resemble applications through instruments that don't care.

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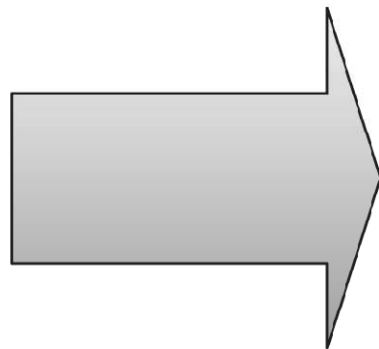
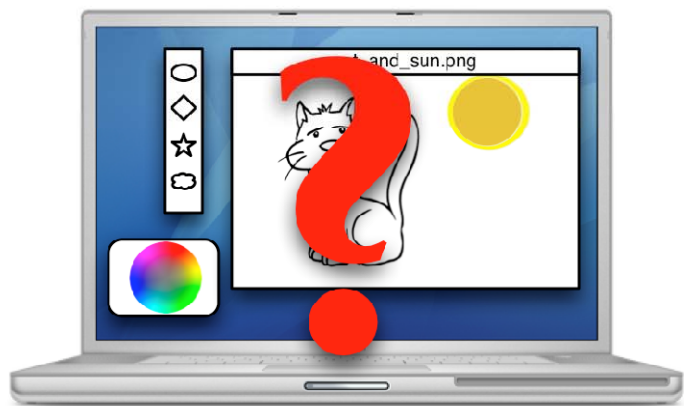
- ~15 PhD Students

Today we use applications.

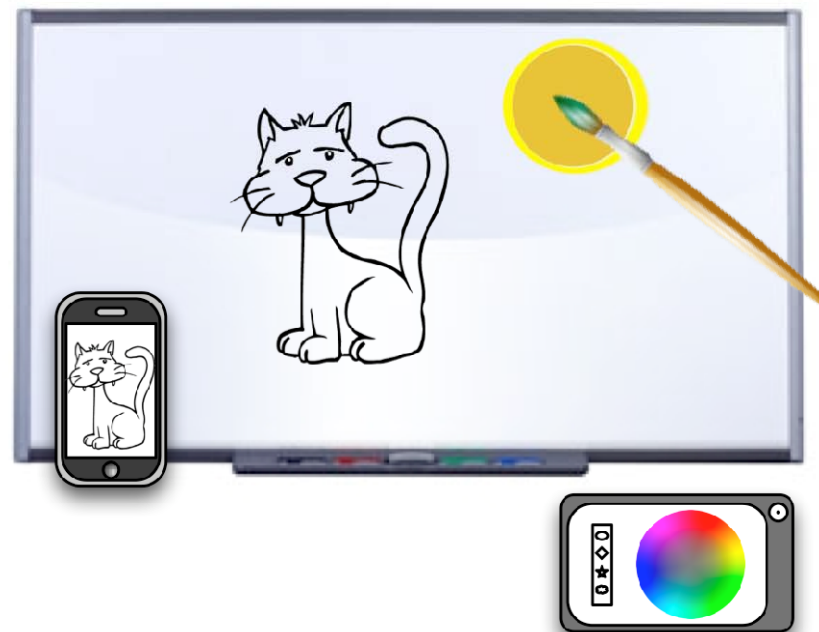
We implement applications through MVC

This is taken for granted ... but is it perfect?

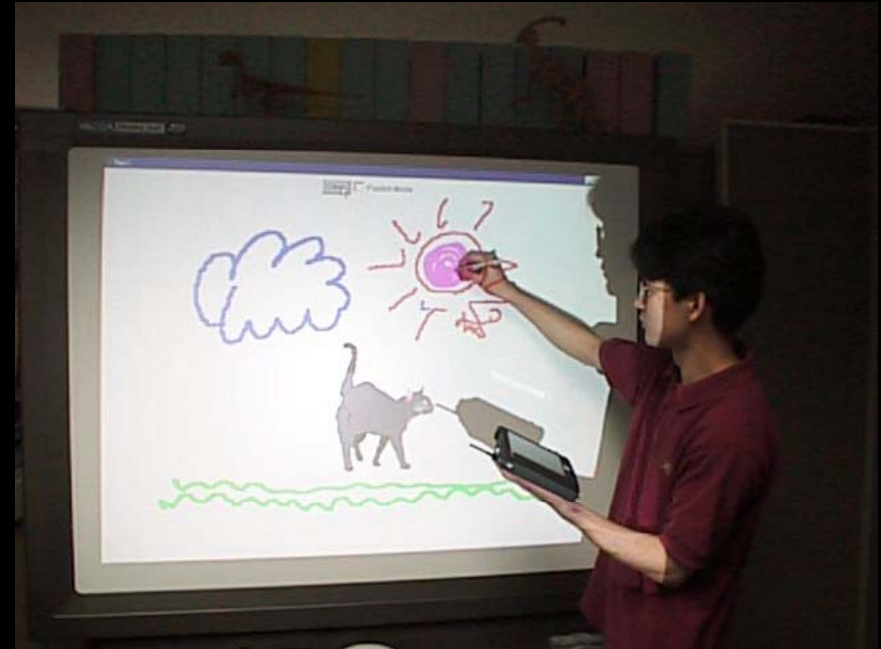
Desktop Applications



Multi-Surface User Interfaces







Rekimoto (CHI 1998 & UIST 1997)

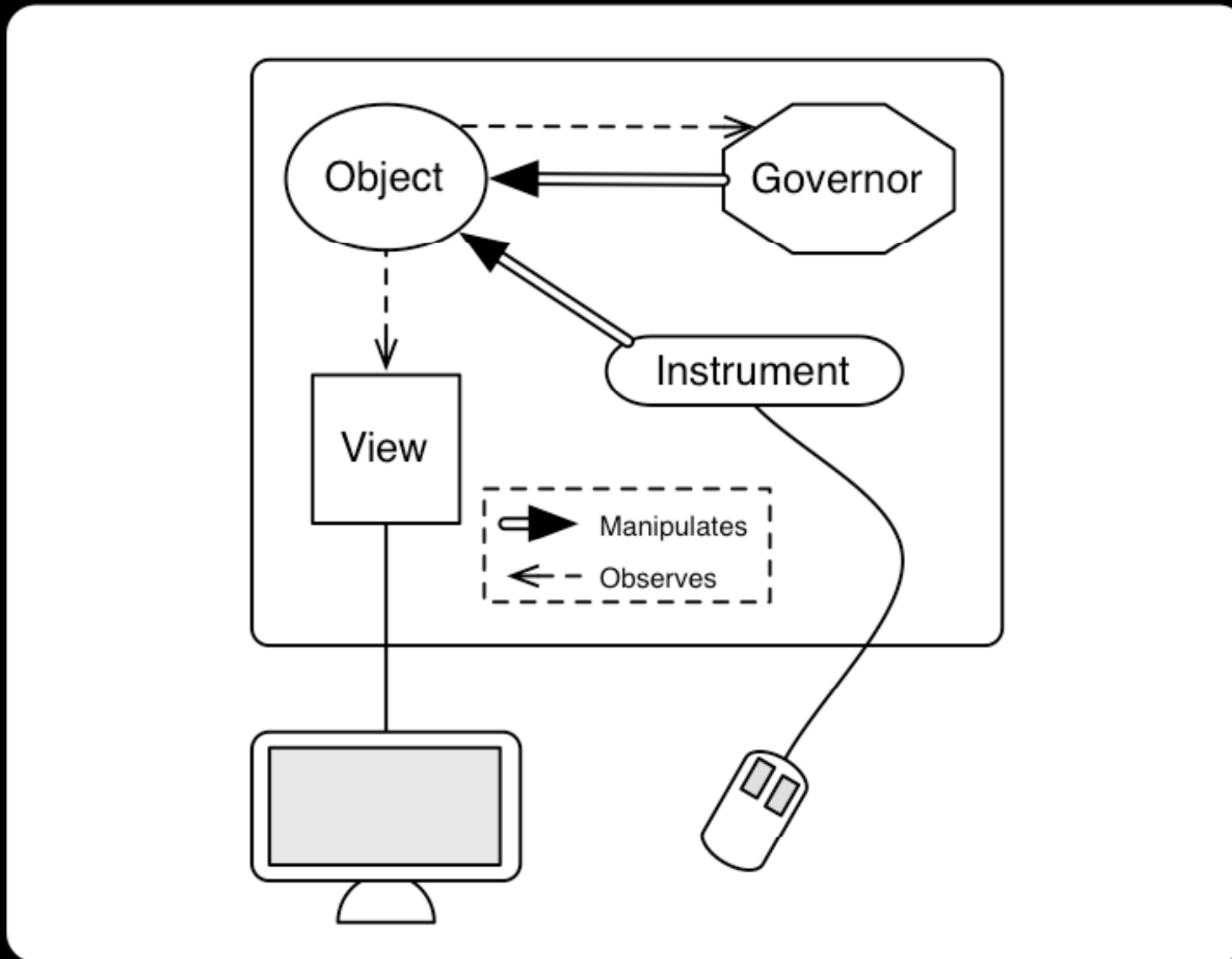
What would we like in a software architecture?

- **Decoupling**

- Interaction logic (instruments) decoupled from objects
- Simple protocol between instruments and objects

- **Integration**

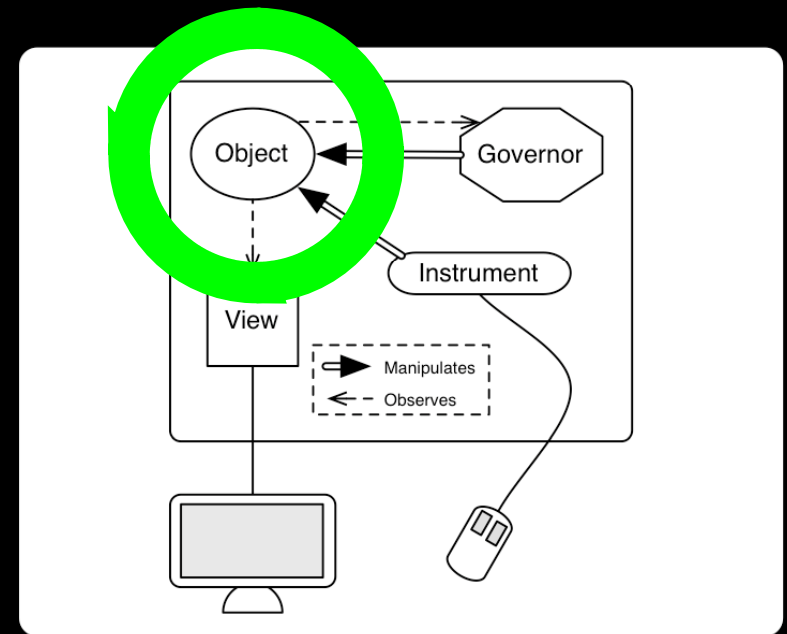
- System appearing “as one” across devices
- Shared object space



Views, Instruments, Governors and Objects (VIGO)

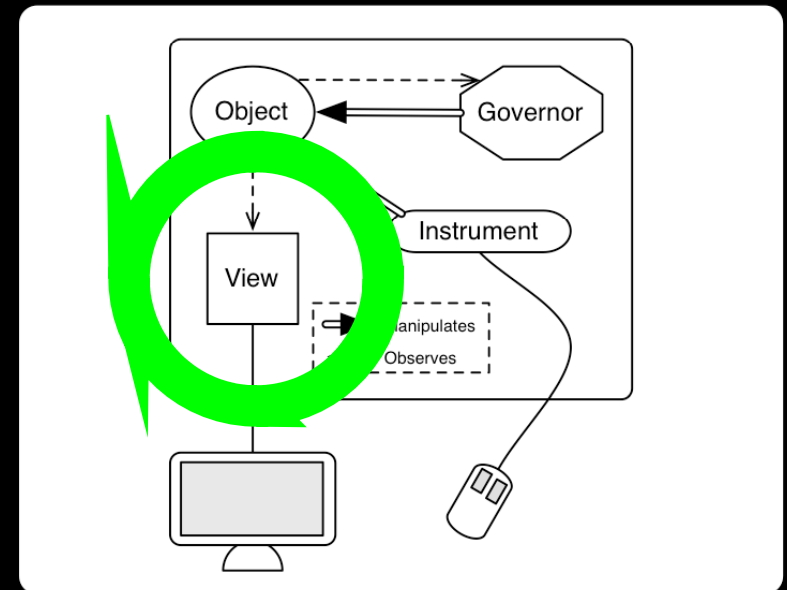
Objects are passive collections of structured data

- Passive
- Compound
- Lightweight



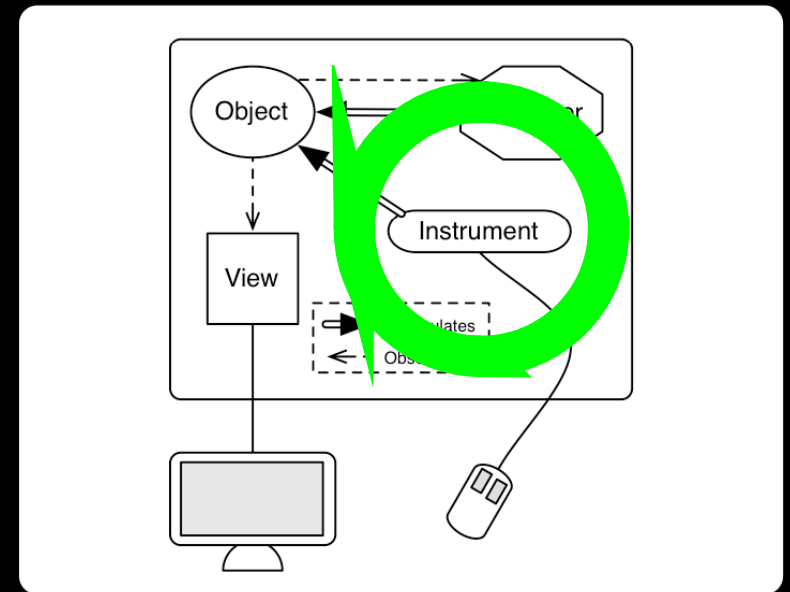
Views are translations of objects into one or more modalities perceptible to the user

- No interaction
- Device dependent
- Multiple views



Instruments are two-way transducers between the user and objects.

- Event processors
- Targets object properties
- Feedback through objects





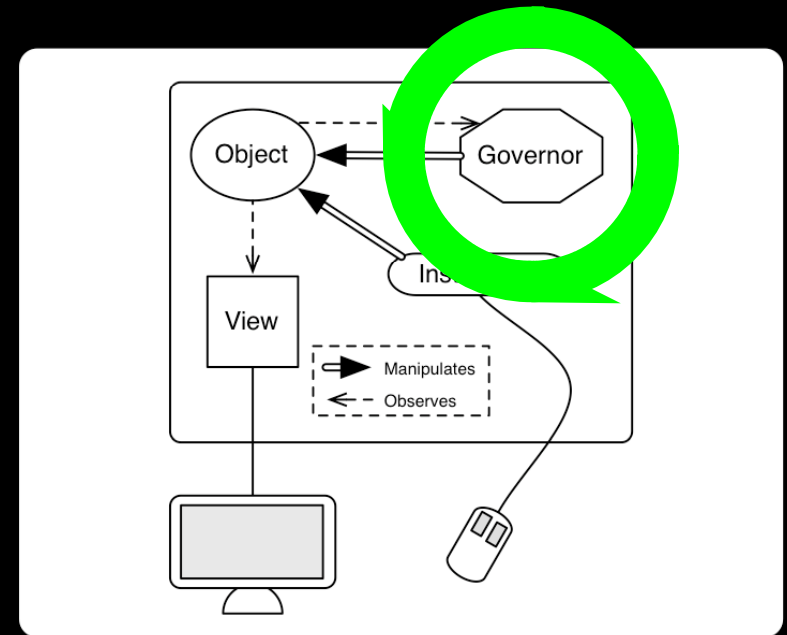
Where should the rules be?

Instruments? No.

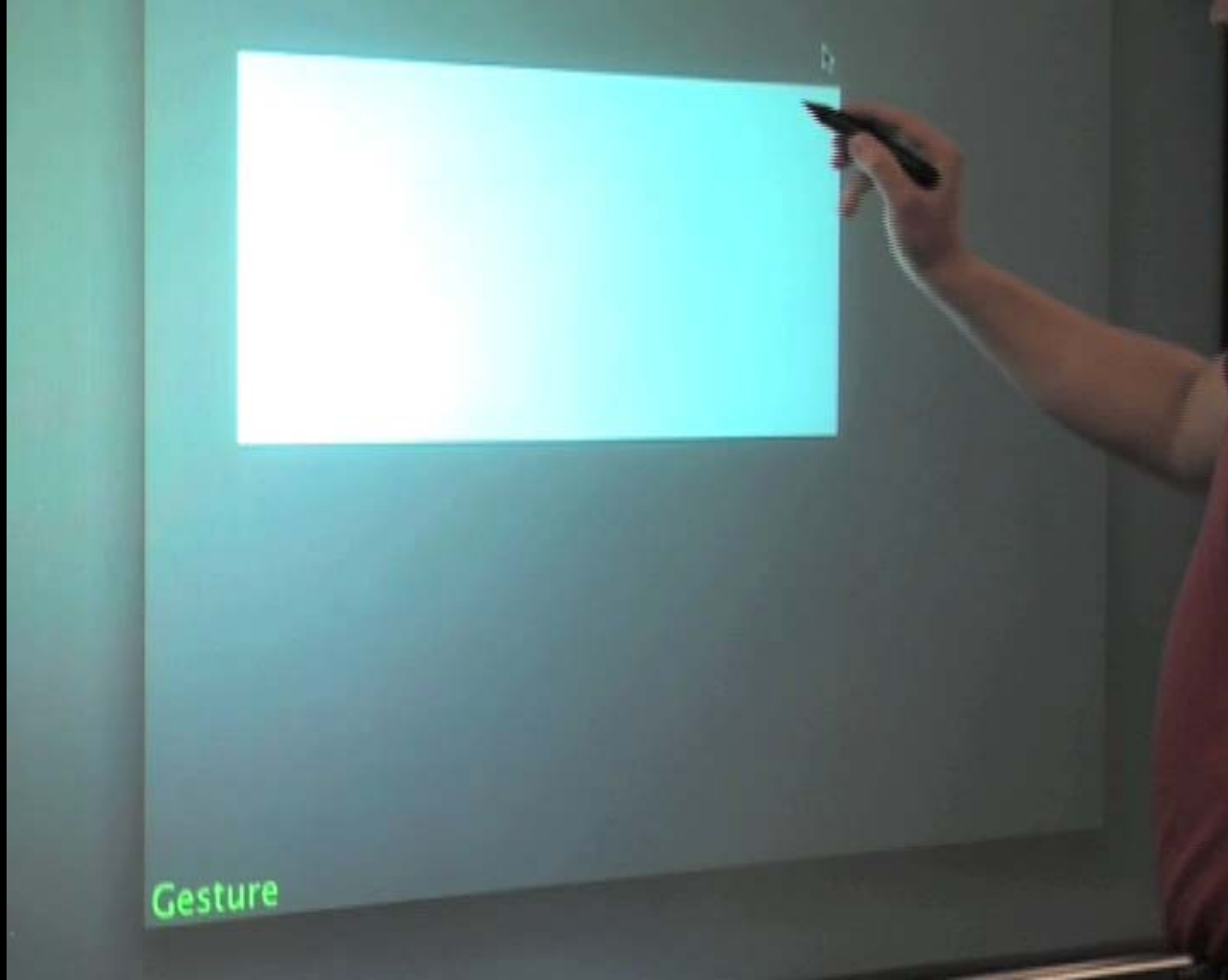
Objects? No.

Governors are the rules and consequences for interaction with objects

- Associated to objects properties
- Observes objects
- Stateless

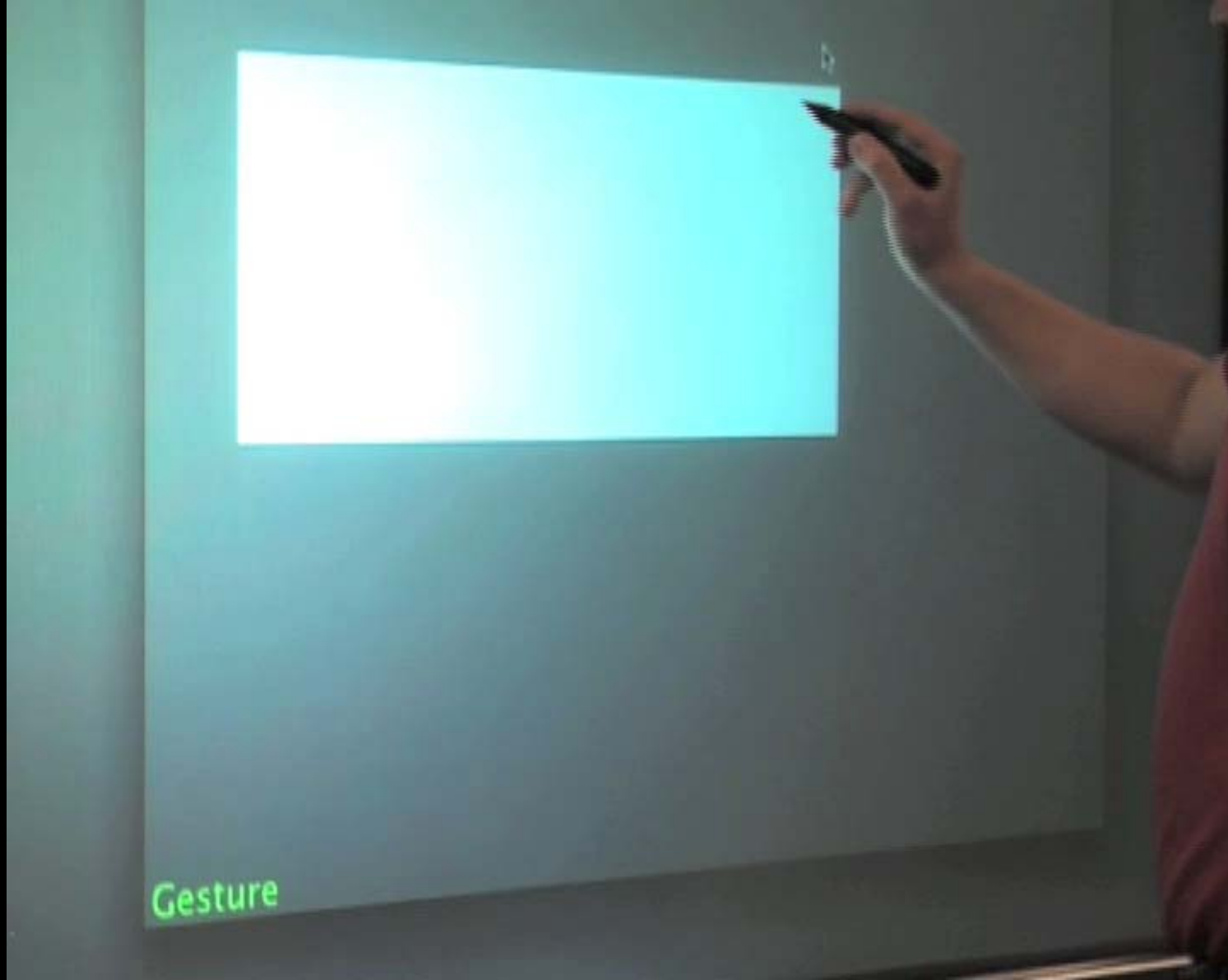


Example: Pick-and-Drop



What did you see?

- Distributed instruments
 - Pick-and-drop
 - Color-picker
- Events shared between the two devices
- Smartboard: Instruments activated with gestures
- N810: Instruments activated with keyboard



Gesture

Gesture



Summing up:

- Are applications and MVC the way to go?
- There are an alternatives
- VIGO is a step in a new direction
- Long way to actual running system though...