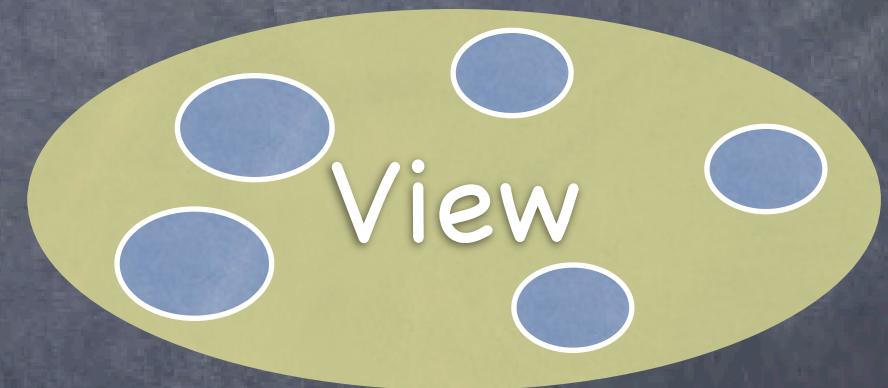
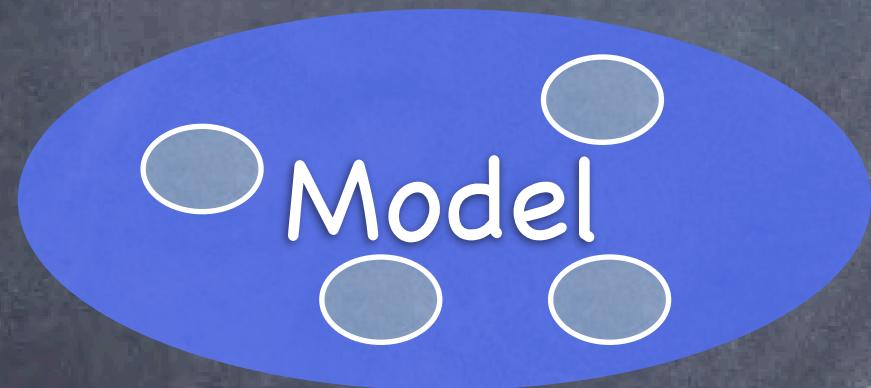


# Design Pattern: Model-View-Controller

Matthias Tretter, @myell0w

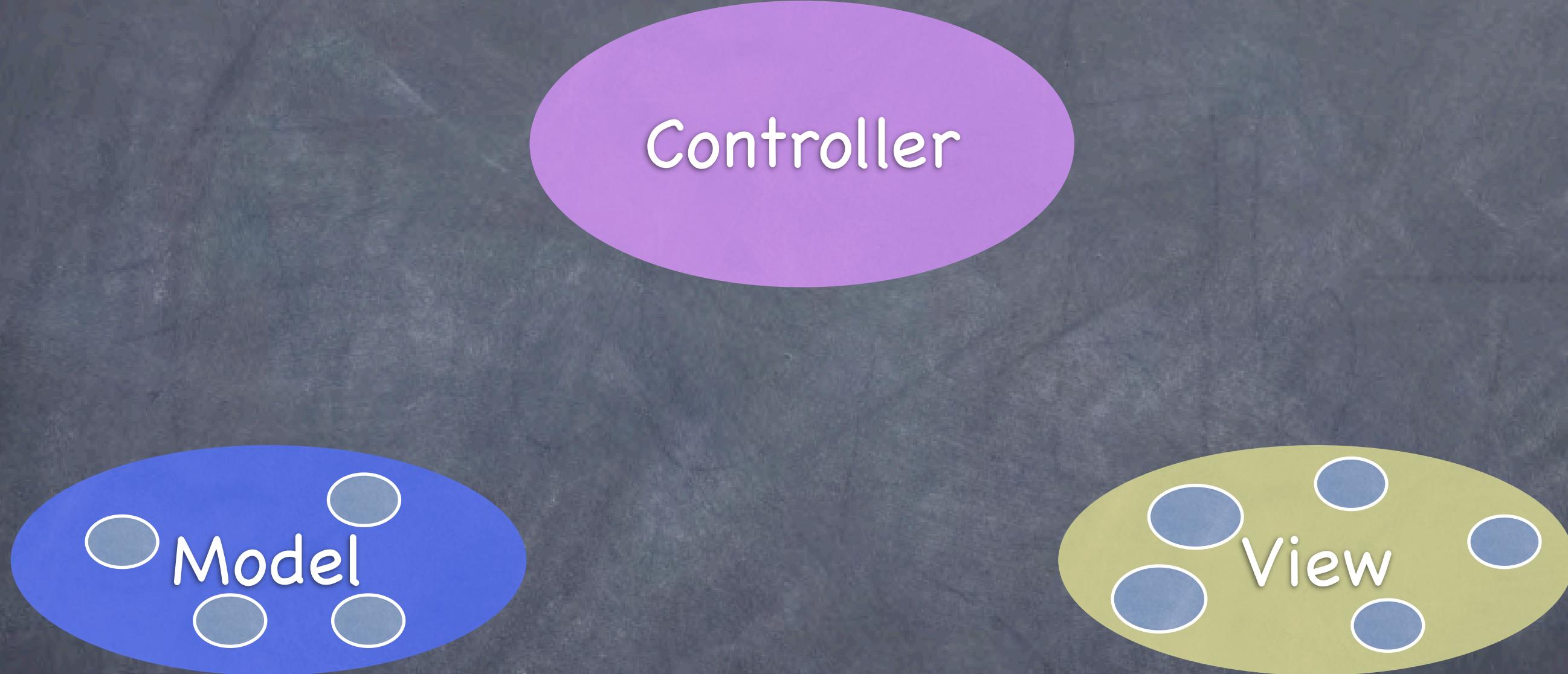
# MVC

Controller



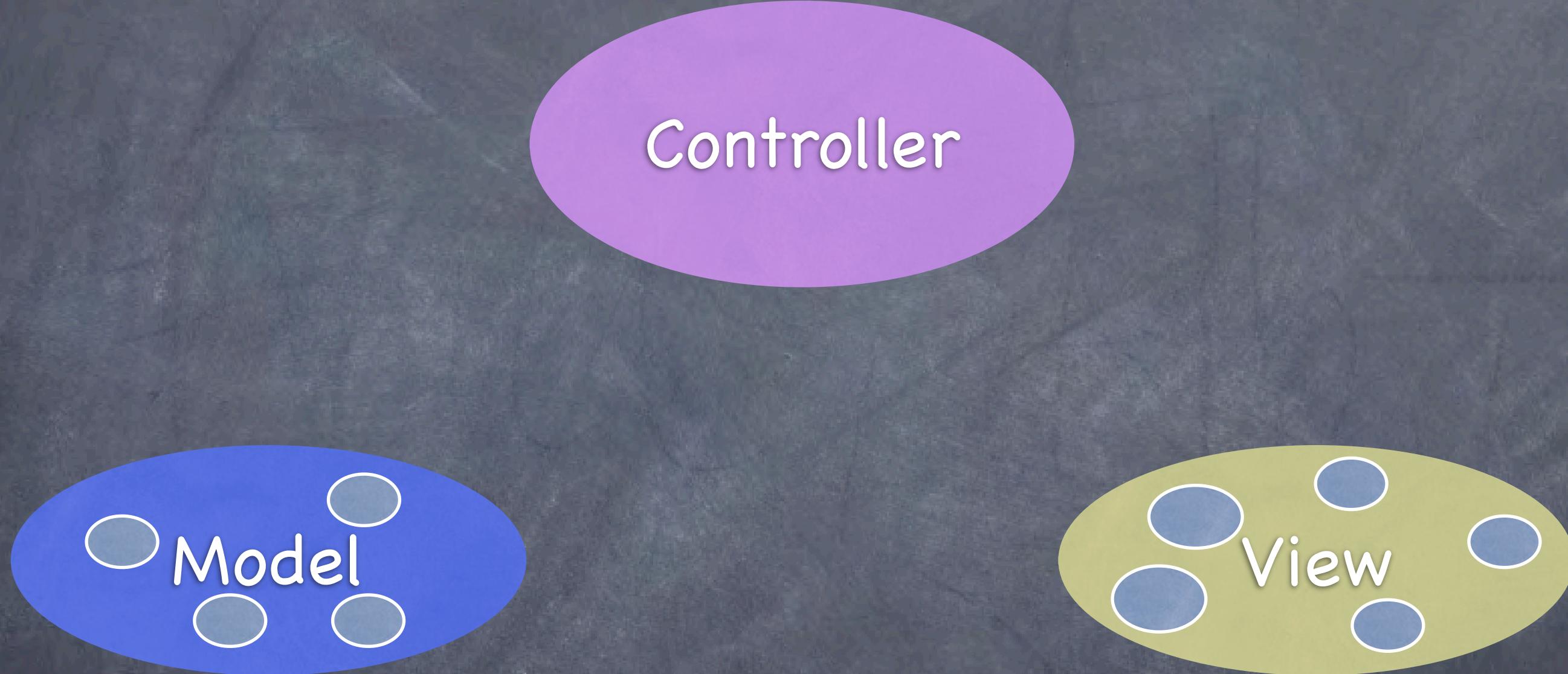
Divide objects in your program into 3 “camps.”

# MVC



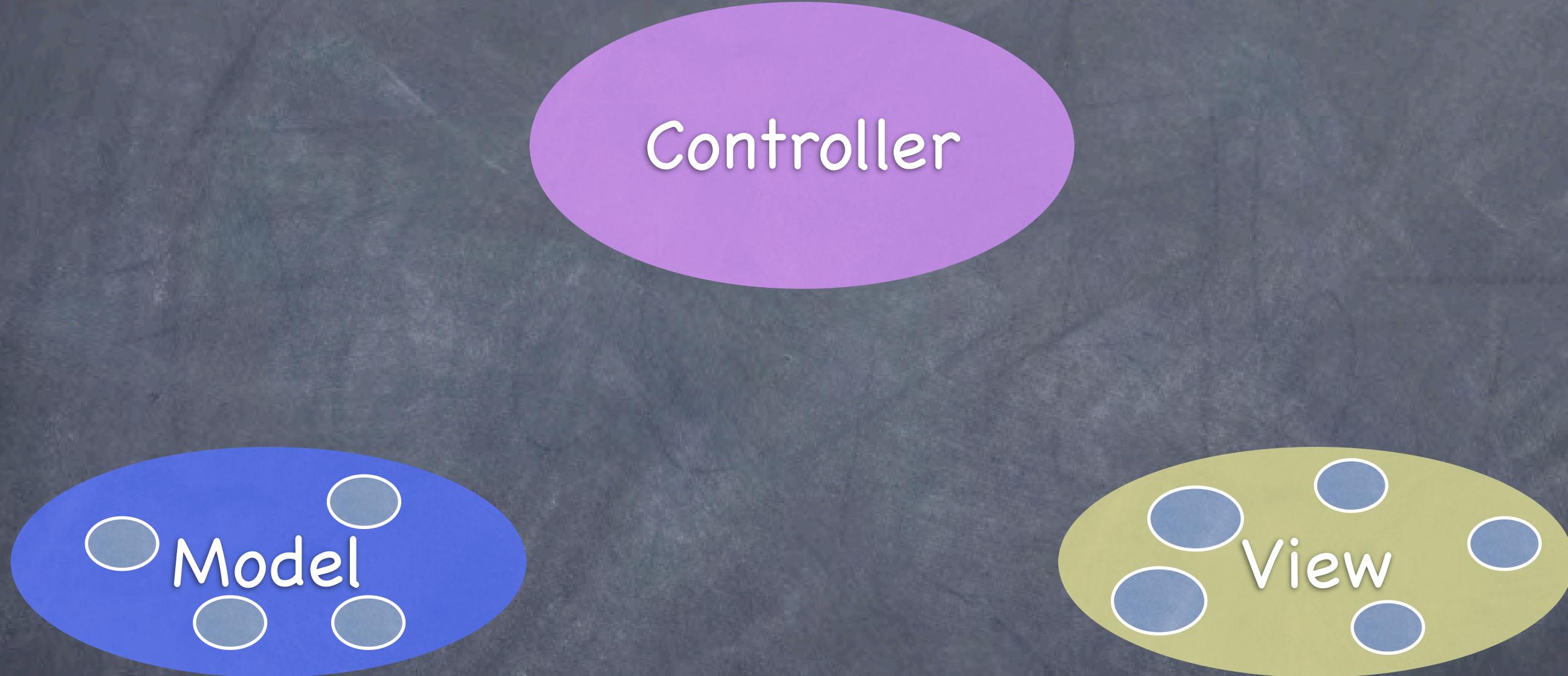
Model = What your application is (but not how it is displayed)

# MVC



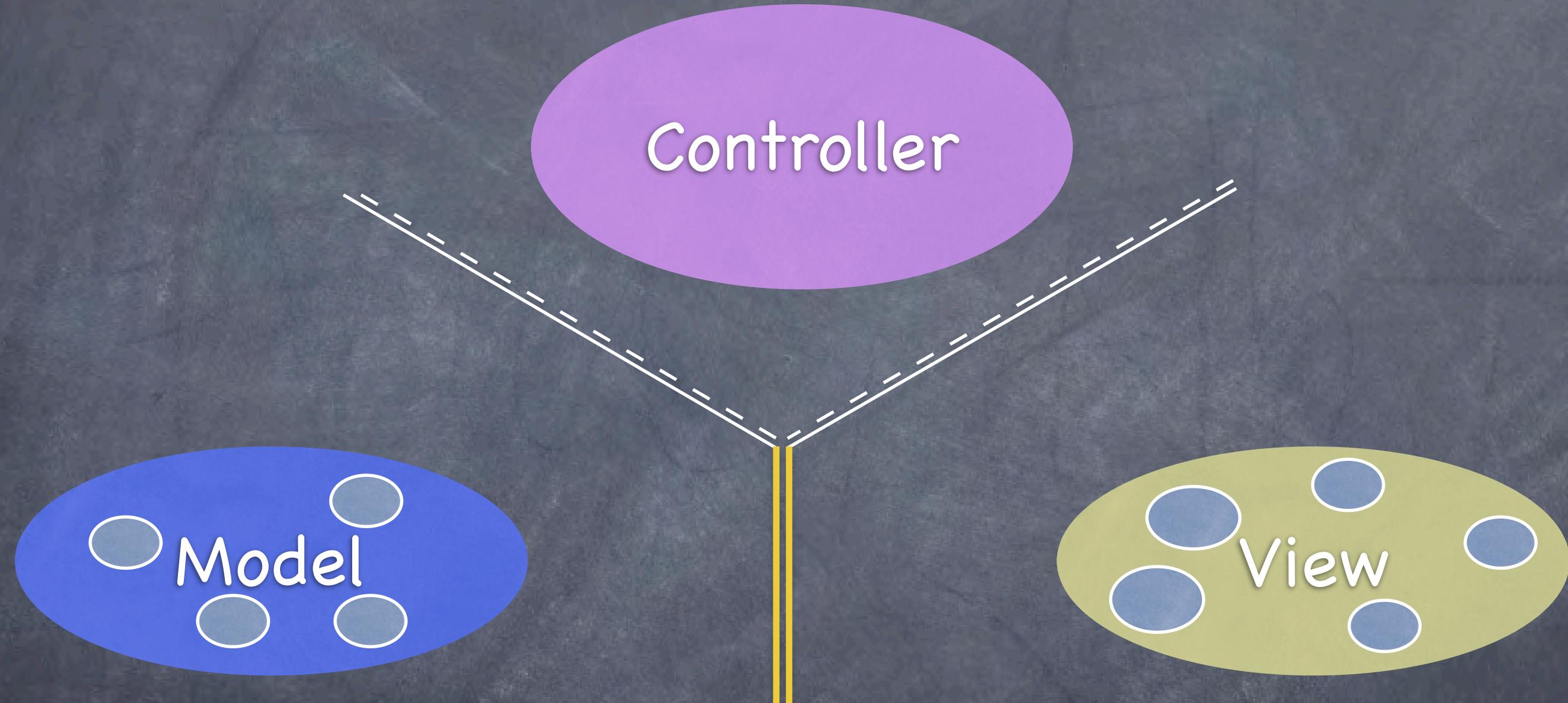
Controller = How your Model is presented to the user (UI logic)

# MVC



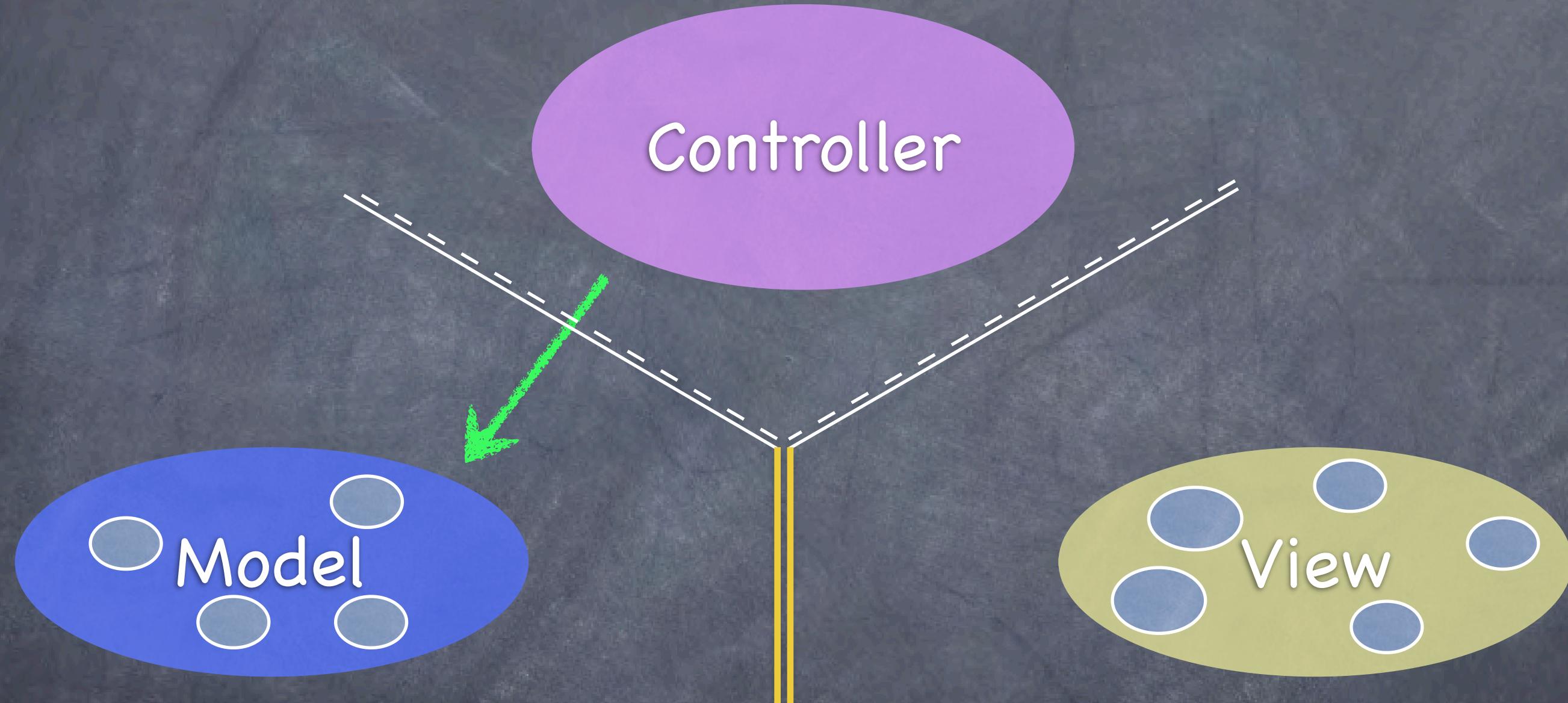
View = Your Controller's minions

# MVC



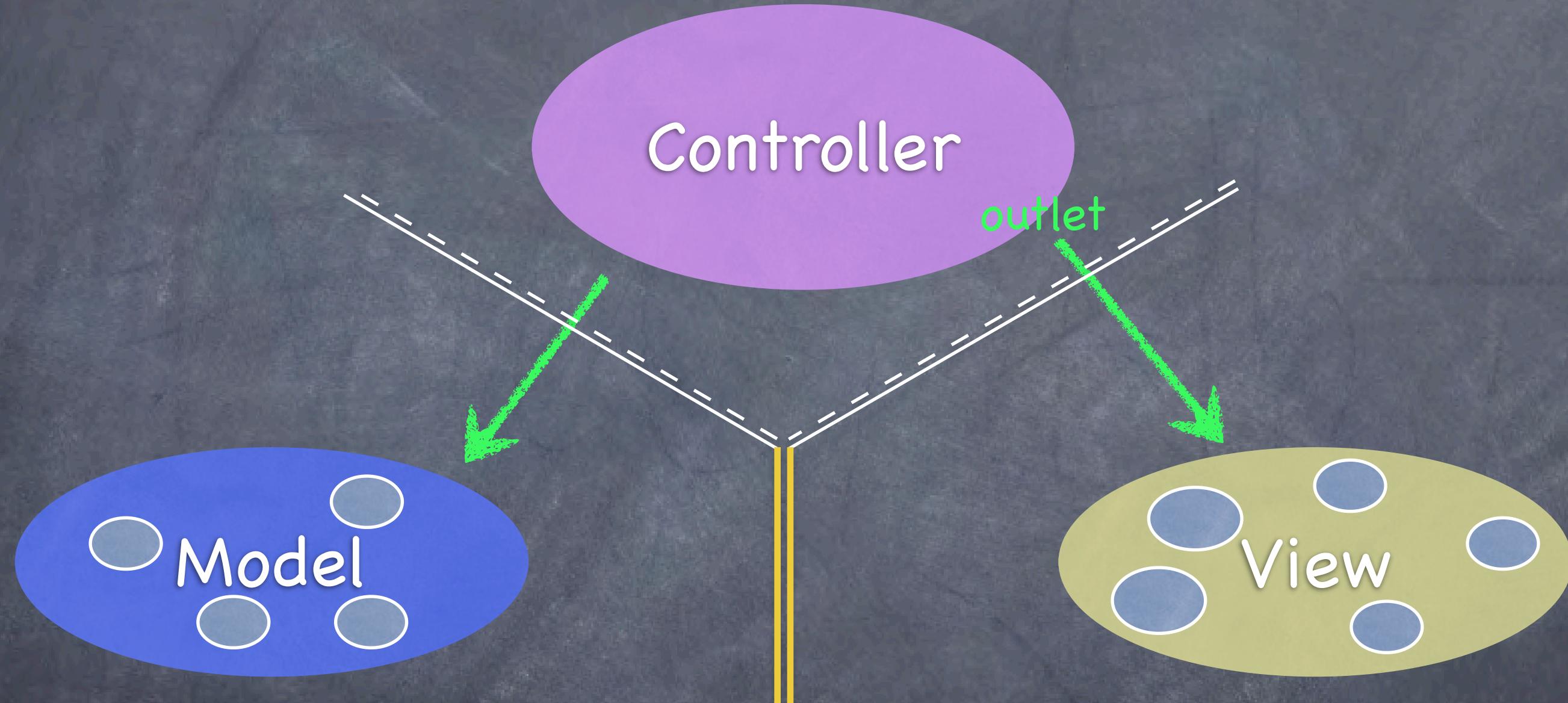
It's all about managing communication between camps

# MVC



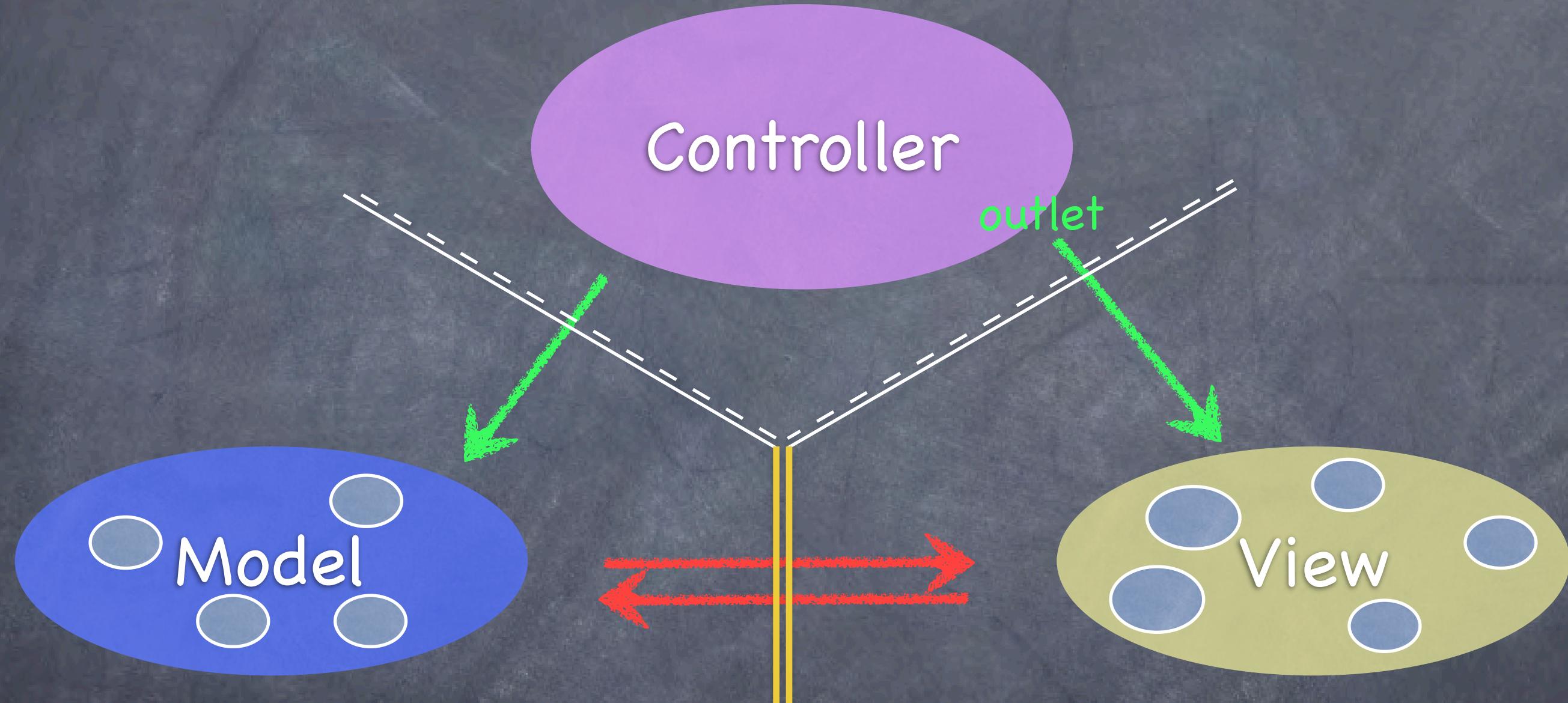
Controllers can always talk directly to their Model.

# MVC



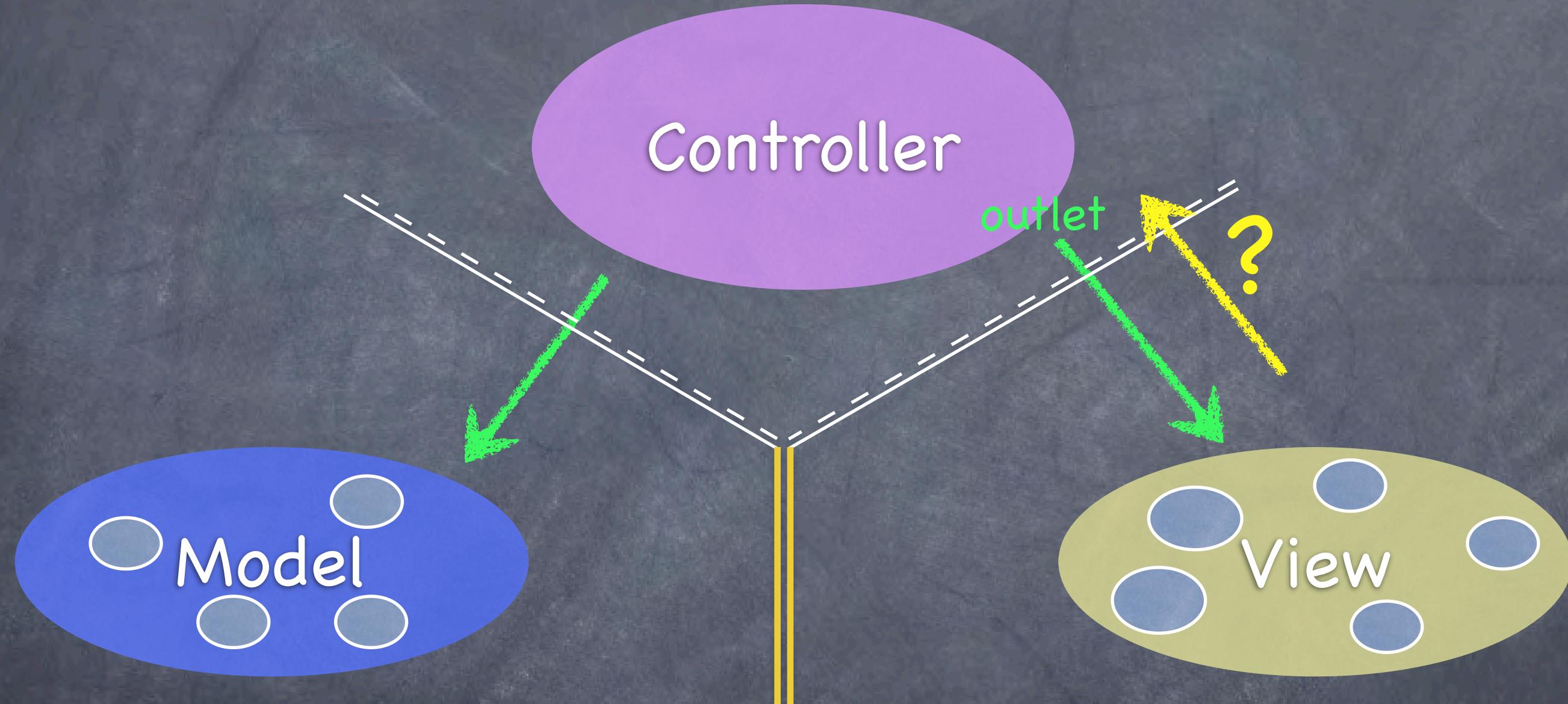
Controllers can also talk directly to their View.

# MVC



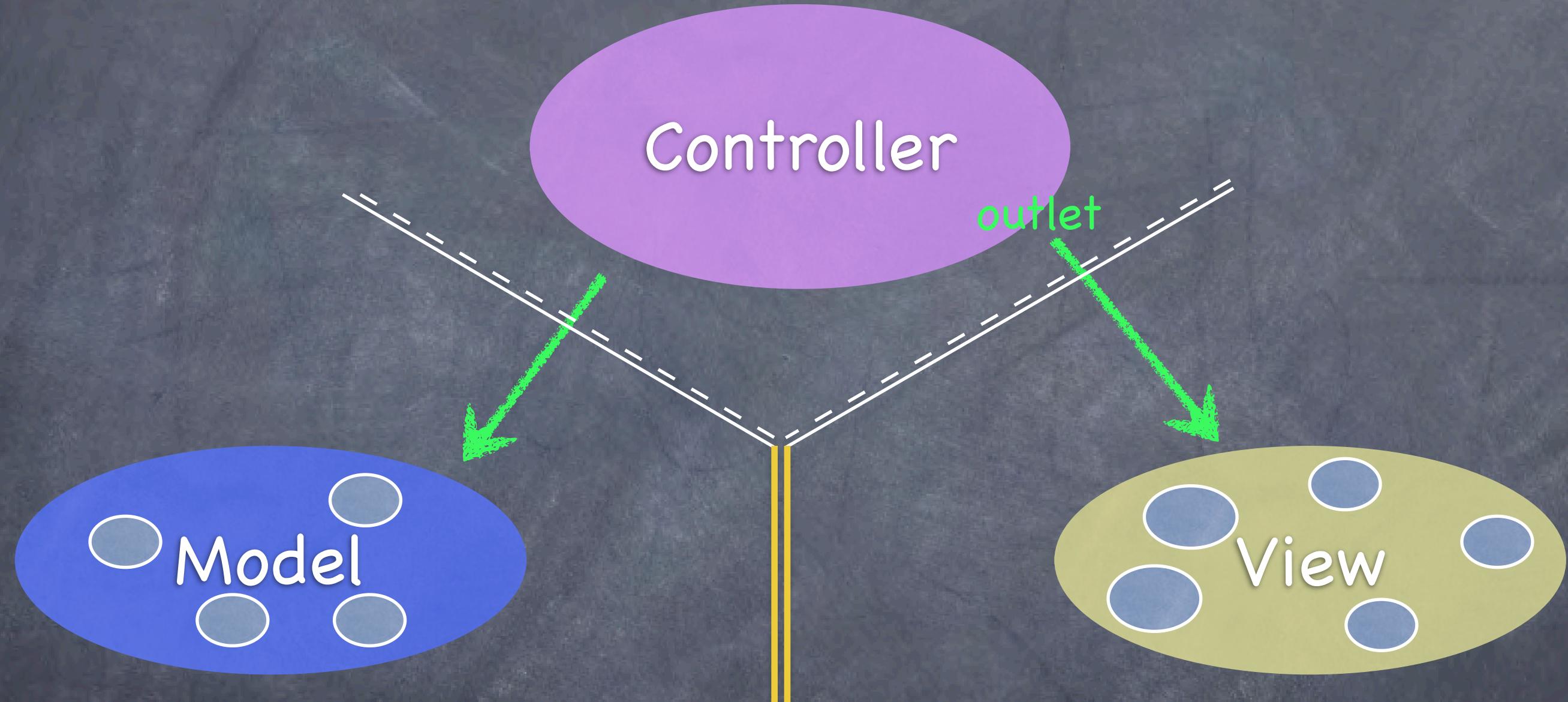
The Model and View should never speak to each other.

# MVC



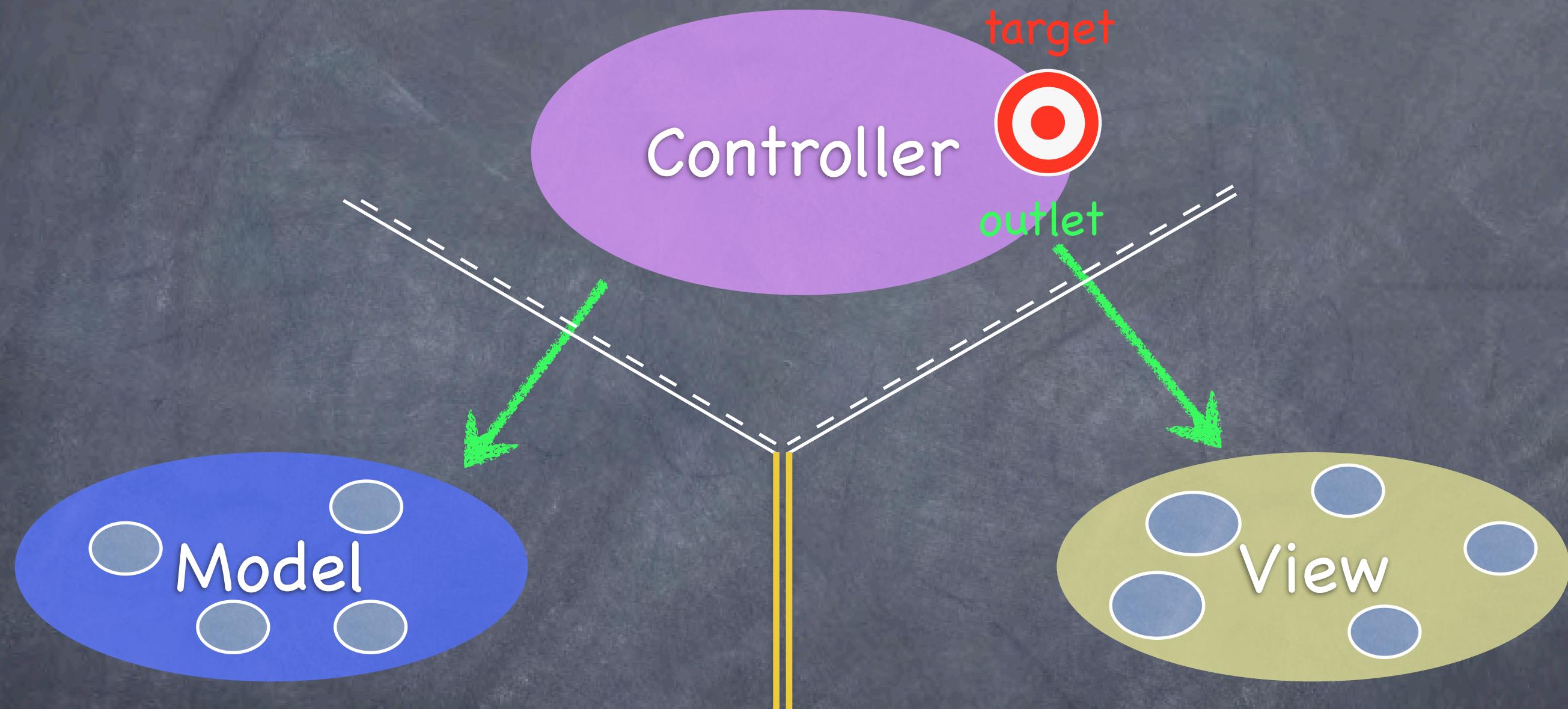
Can the **View** speak to its **Controller**?

# MVC



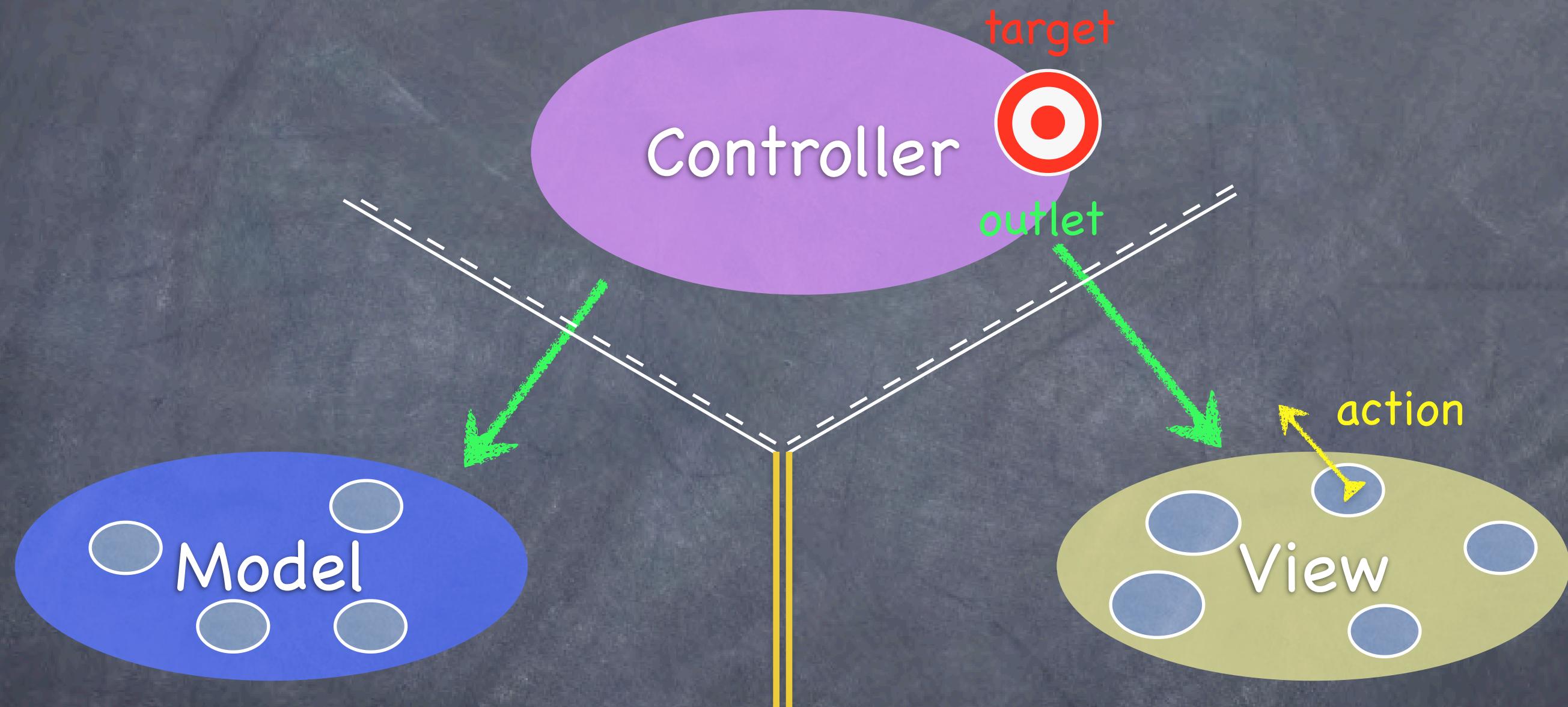
Sort of. Communication is “blind” and structured.

# MVC



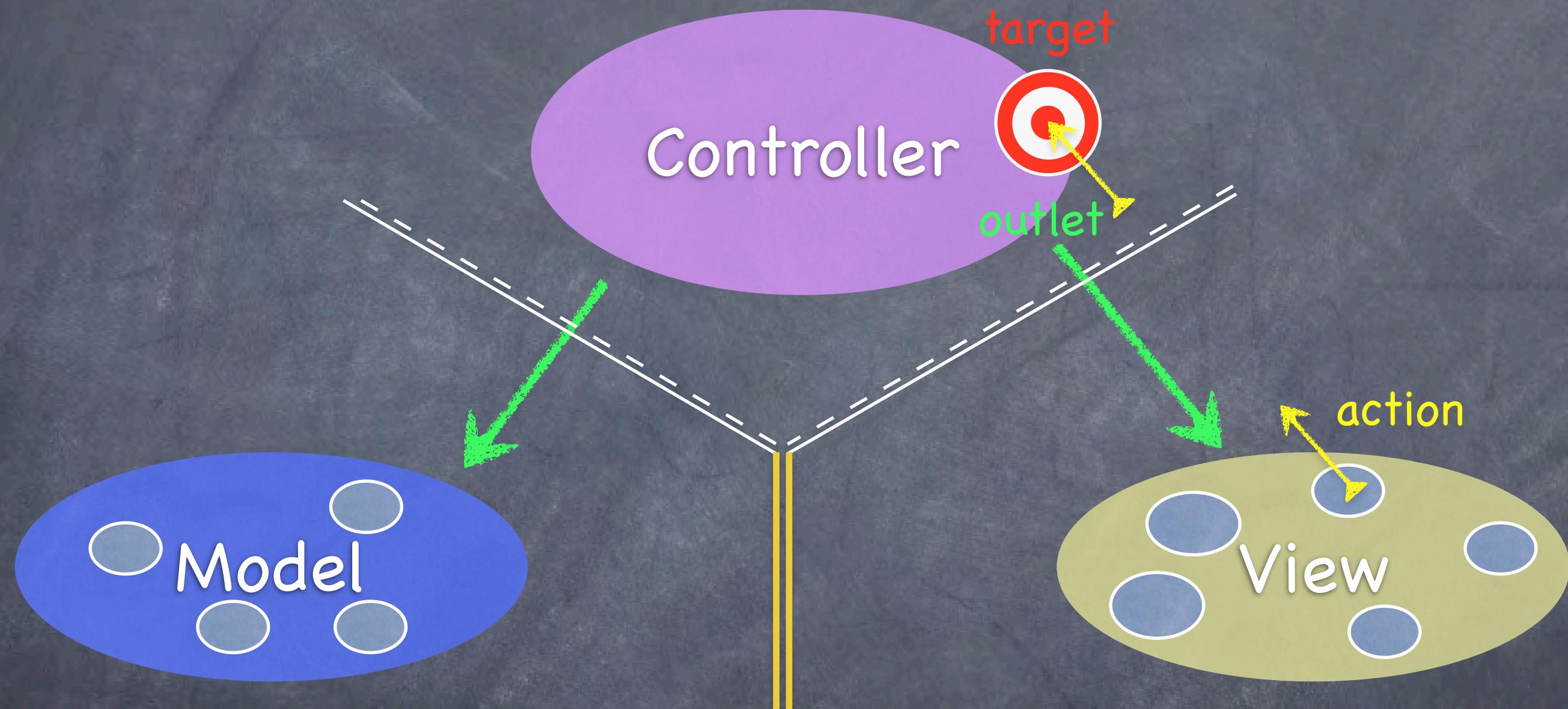
The Controller can drop a target on itself.

# MVC



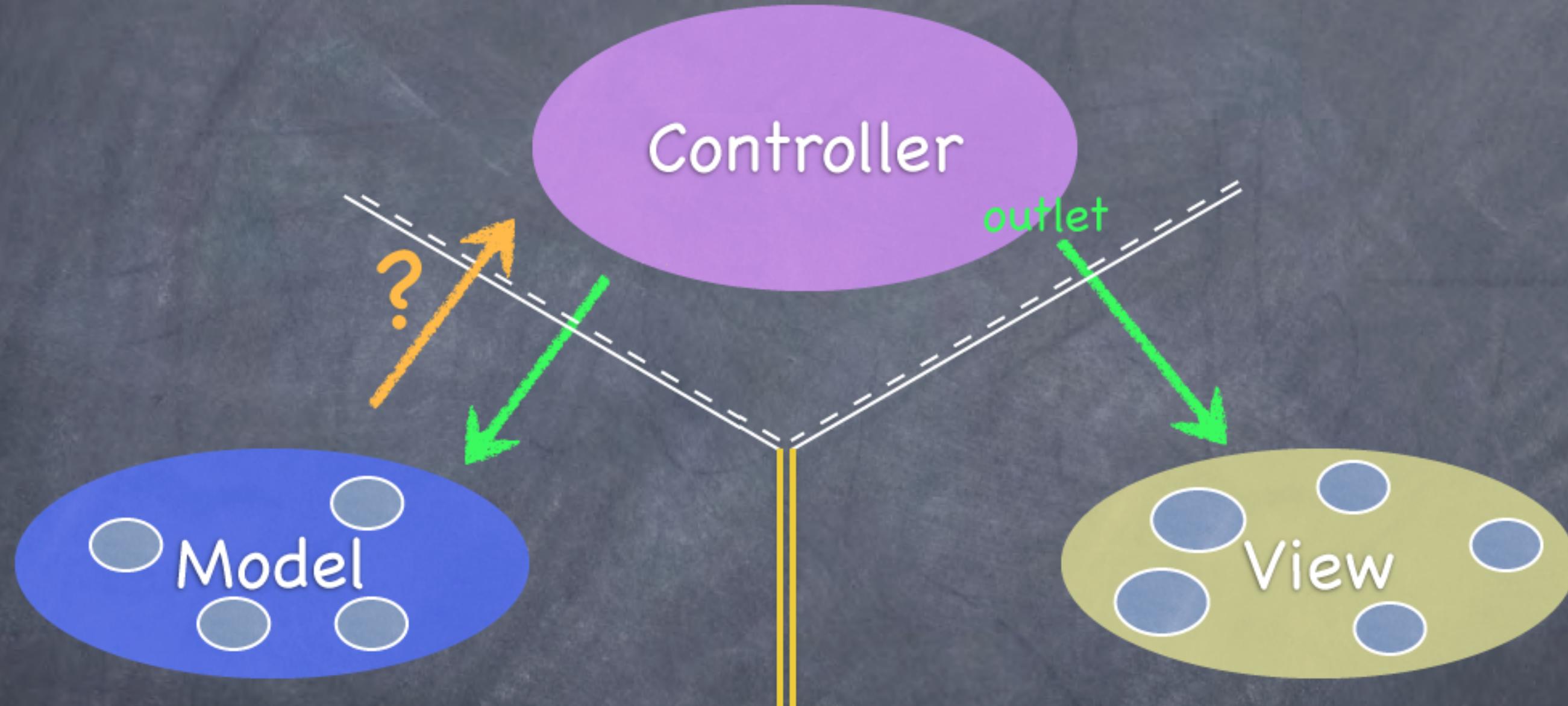
Then hand out an **action** to the View.

# MVC



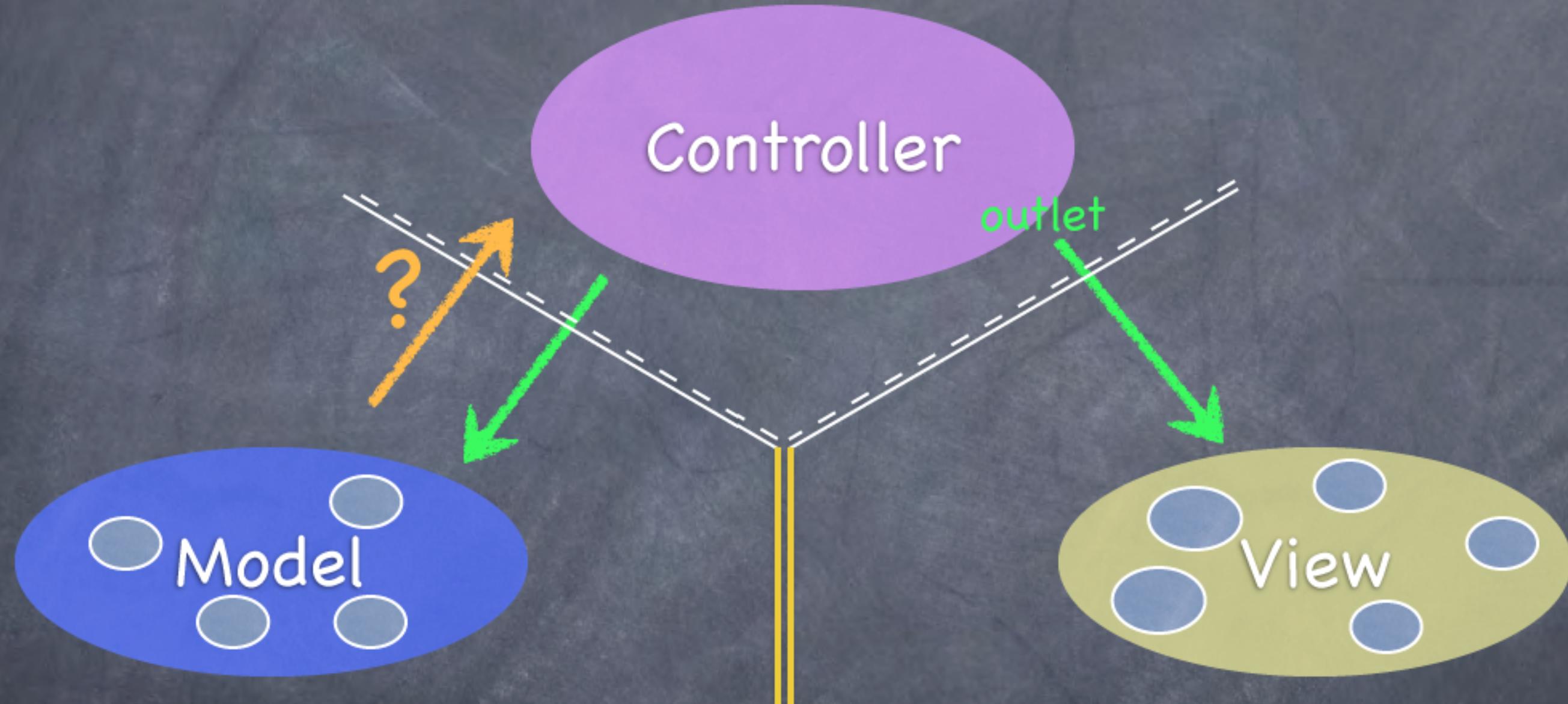
The View sends the **action** when things happen in the UI.

# MVC



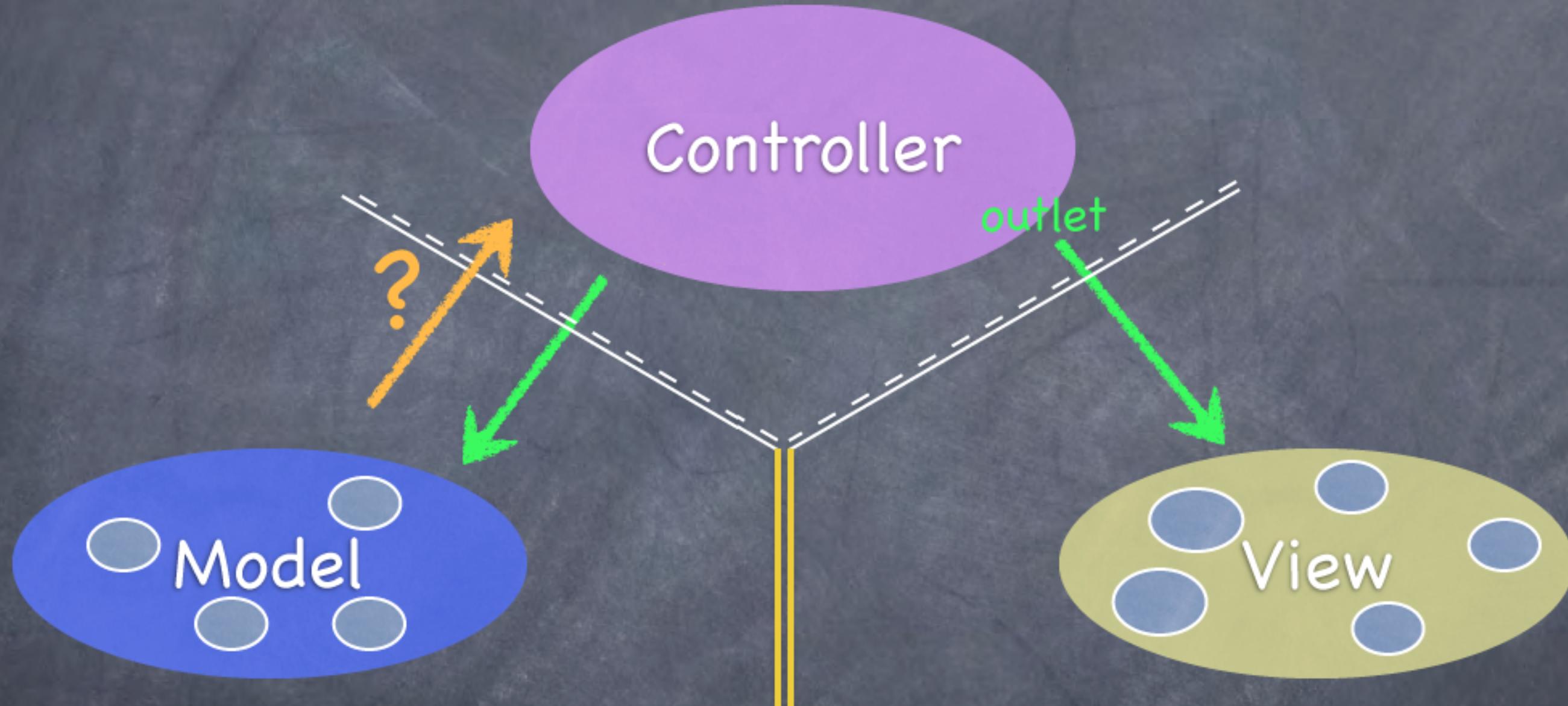
Can the Model talk directly to the Controller?

# MVC



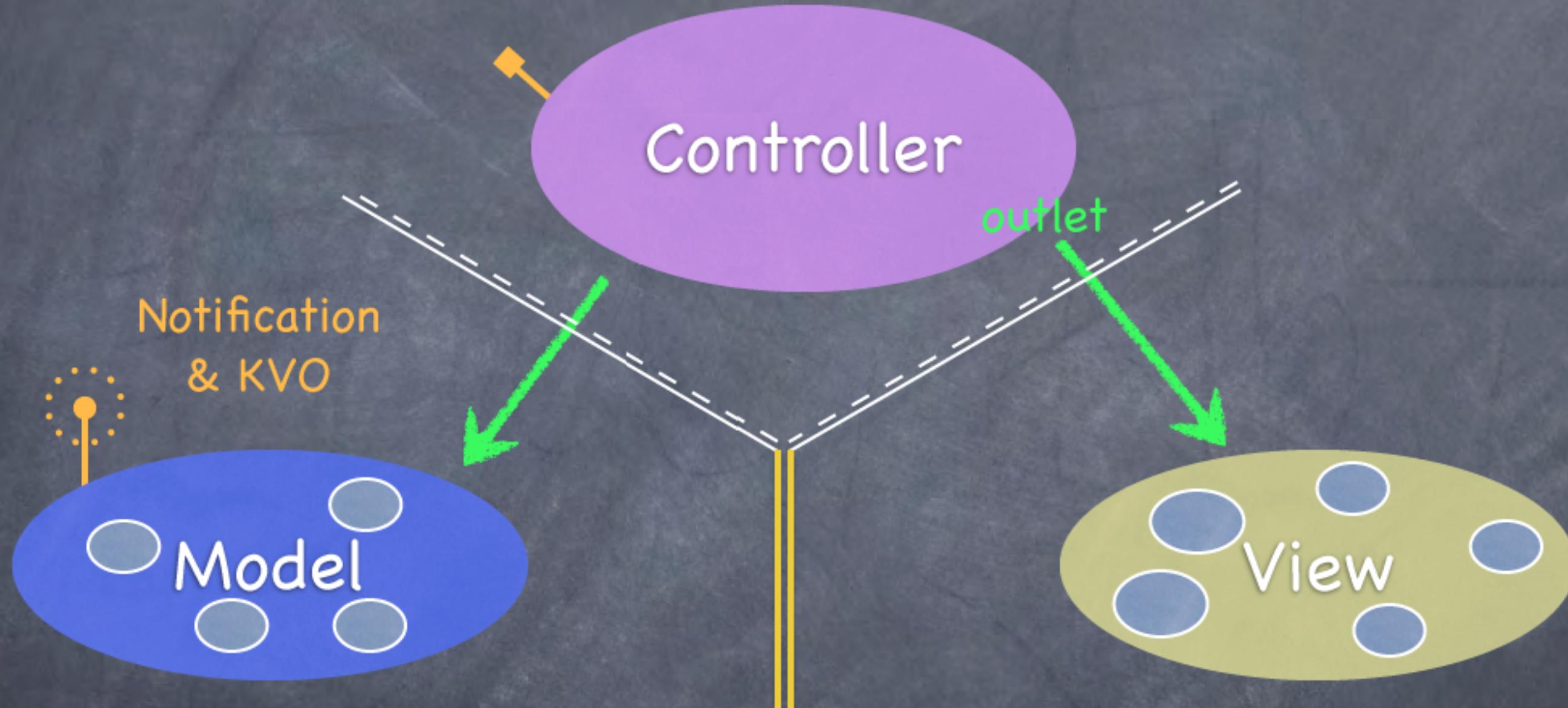
No. The Model is (should be) UI independent.

# MVC



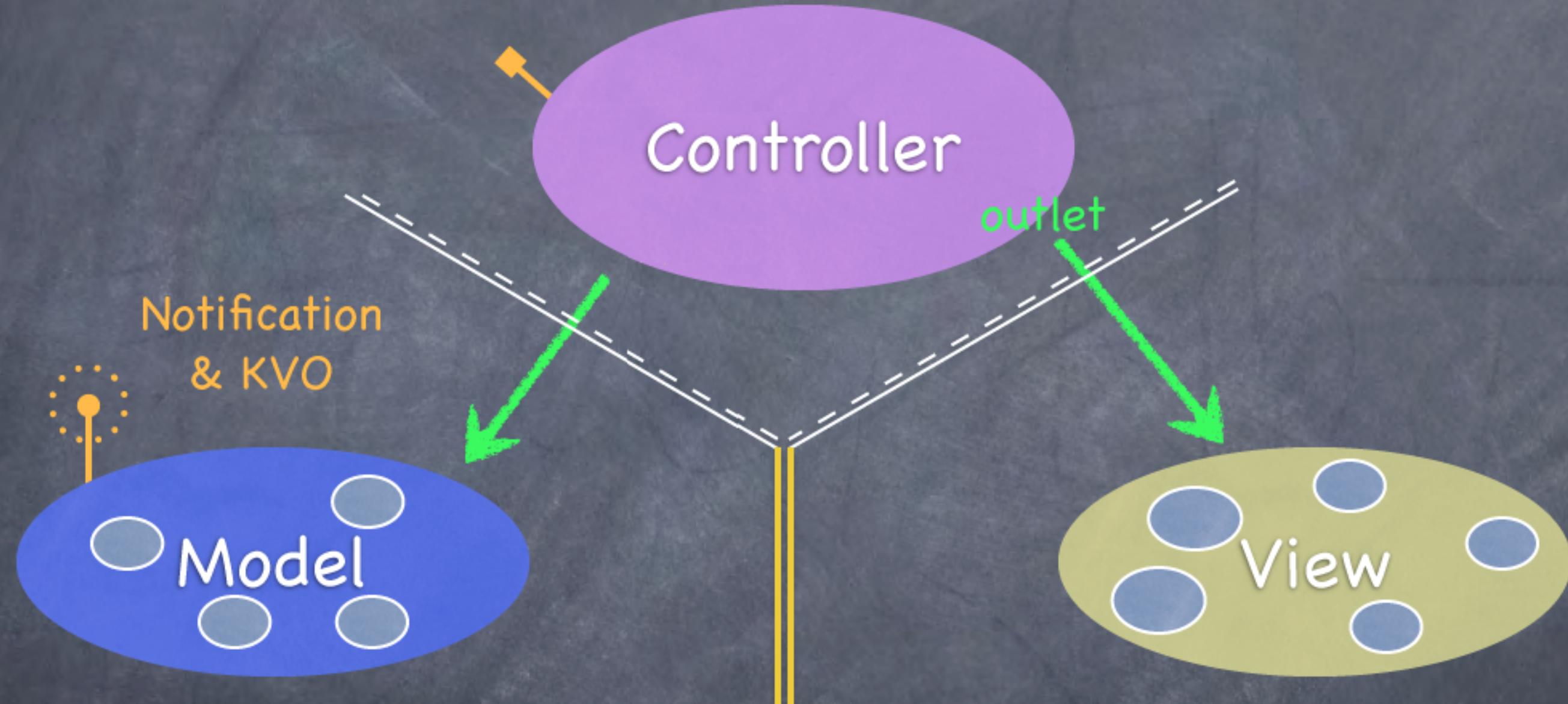
So what if the Model has information to update or something?

# MVC



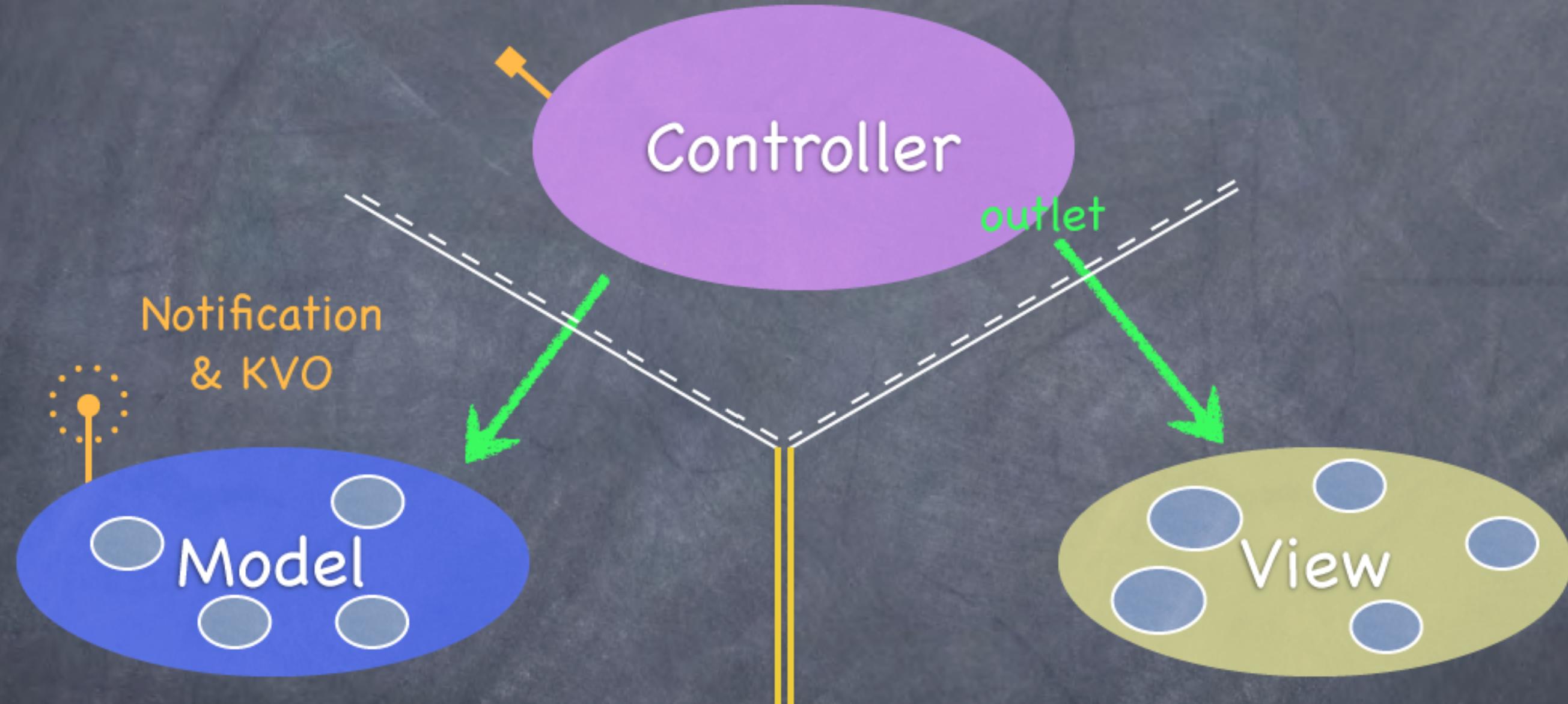
It uses a “radio station”-like broadcast mechanism.

# MVC



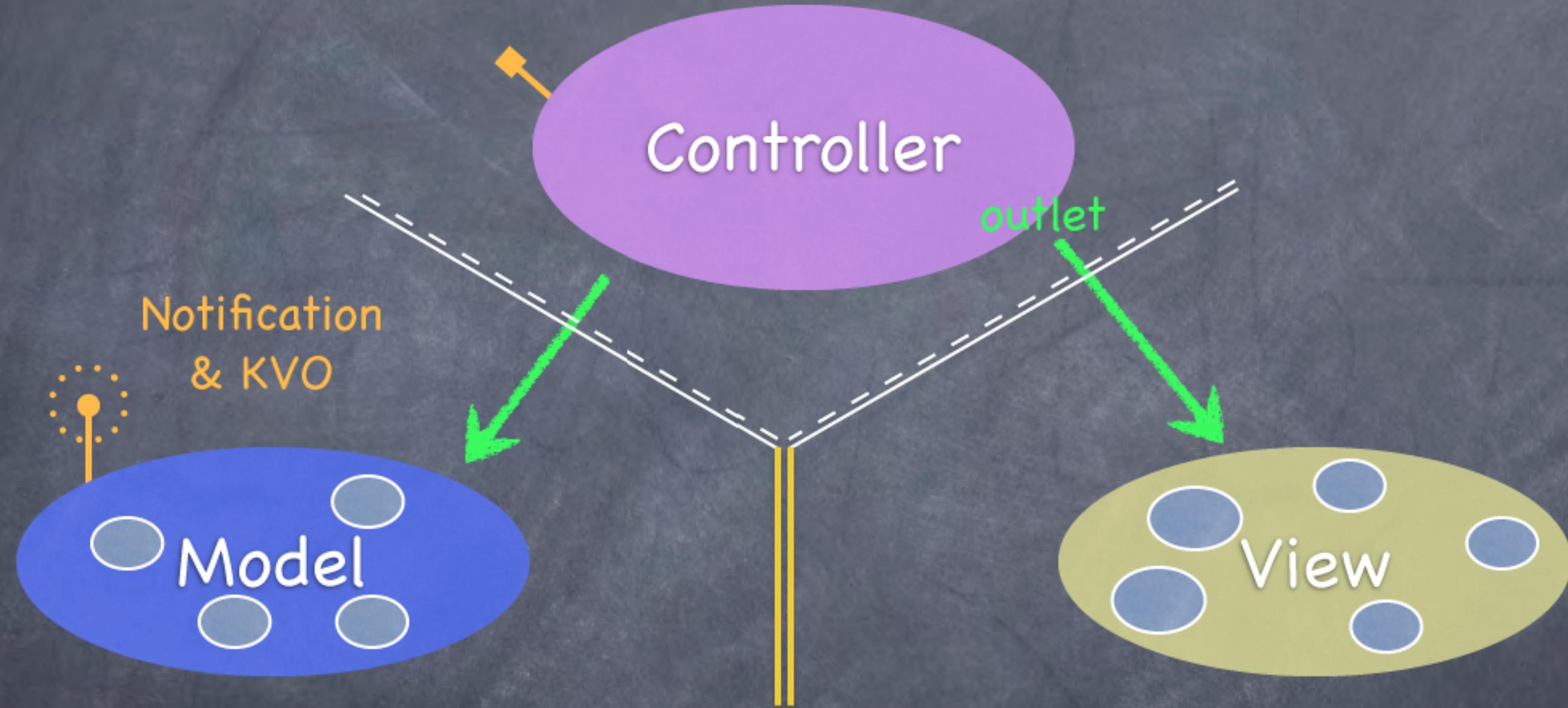
Controllers (or other Model) “tune in” to interesting stuff.

# MVC



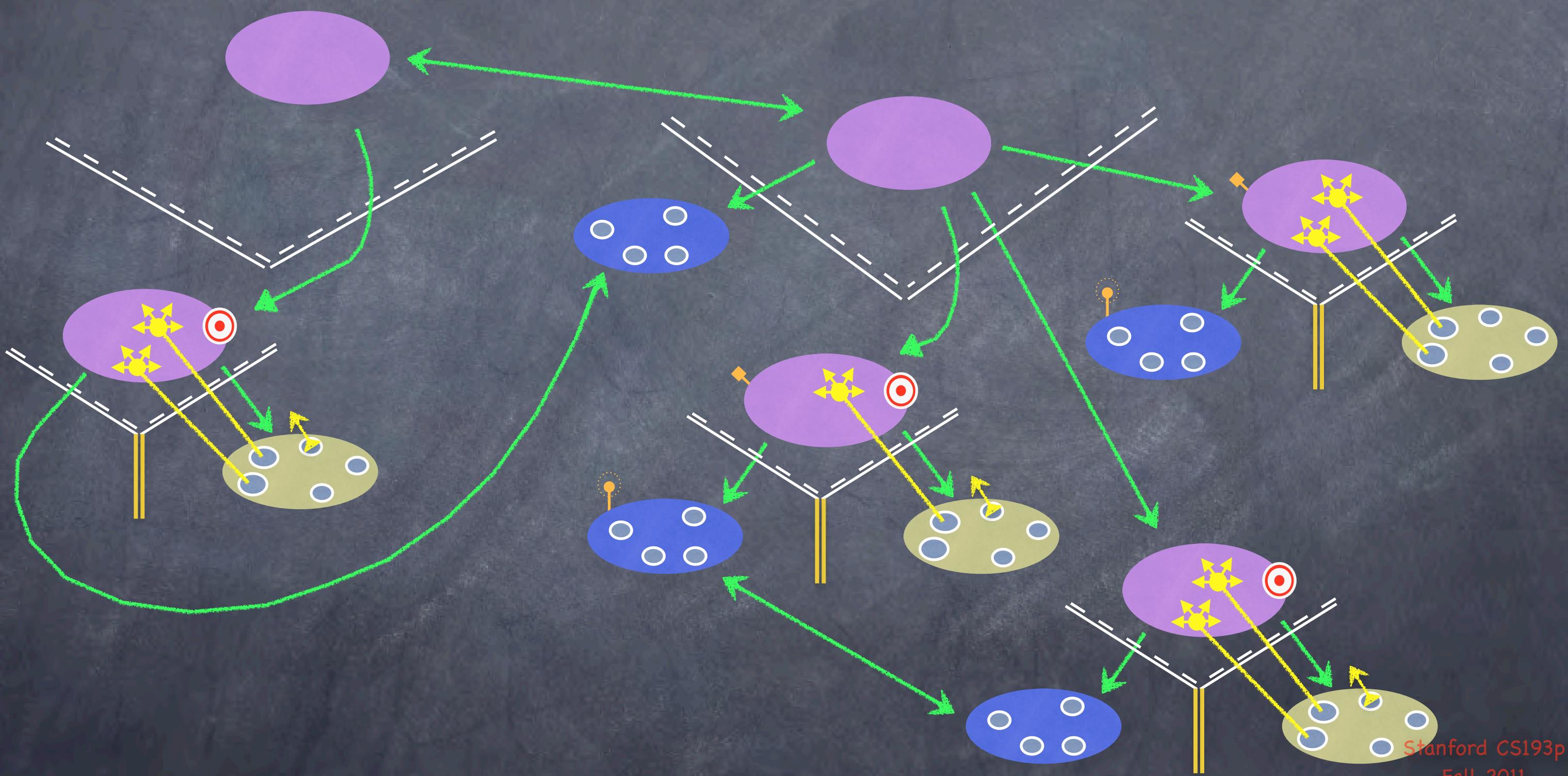
A **View** might “tune in,” but probably not to a **Model’s “station.”**

# MVC

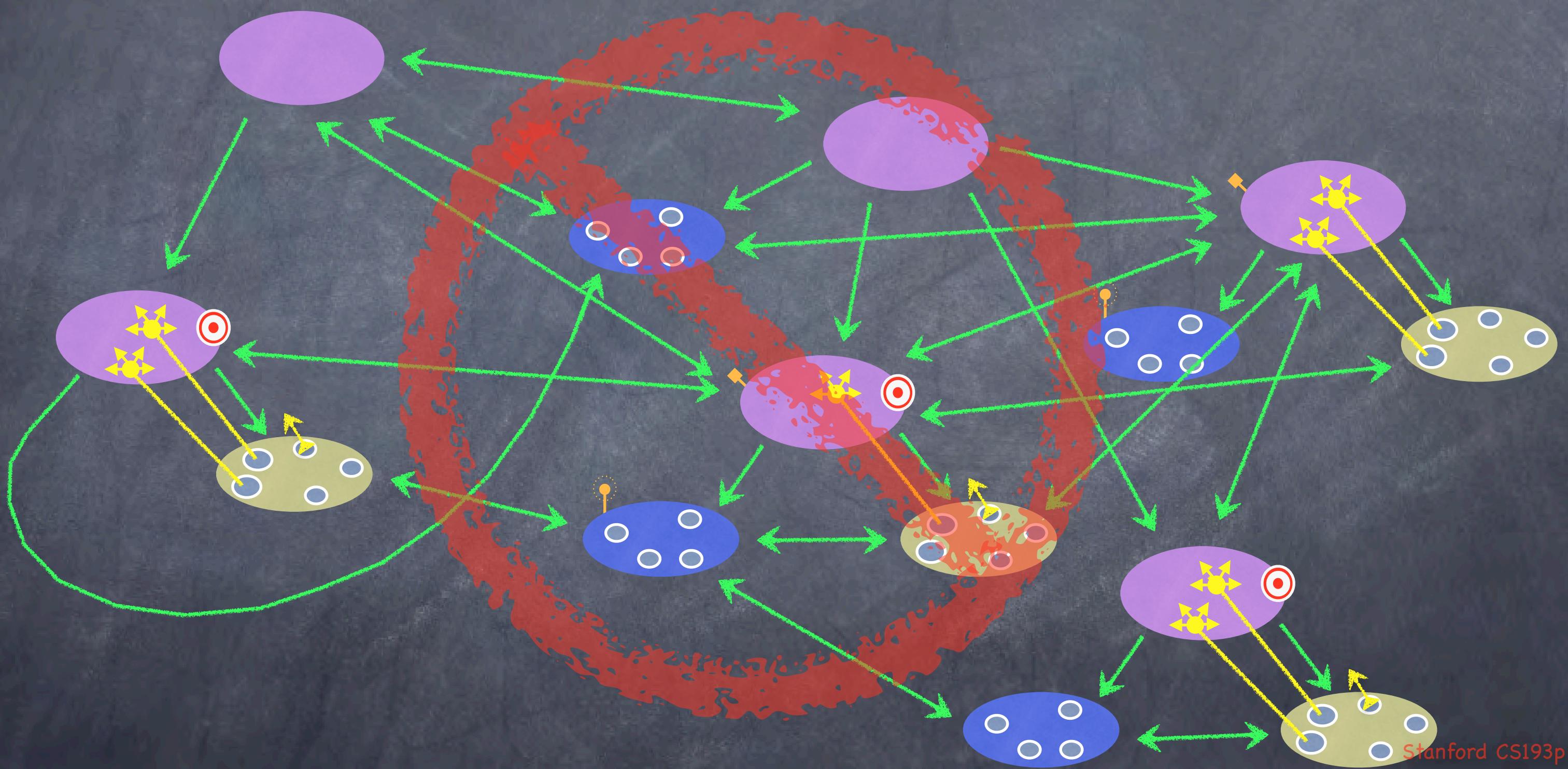


Now combine MVC groups to make complicated programs ...

# MVCs working together



# MVCs not working together



# Further Literature

- ⦿ Cocoa Core Competencies: Model-View-Controller, Apple  
<https://developer.apple.com/library/mac/#documentation/General/Conceptual/DevPedia-CocoaCore/MVC.html>
- ⦿ Concepts in Objective-C Programming: MVC, Apple  
<http://developer.apple.com/library/ios/#documentation/general/conceptual/CocoaEncyclopedia/Model-View-Controller/Model-View-Controller.html>
- ⦿ iOS Design Patterns: MVC  
<http://blog.teamtreehouse.com/ios-design-patterns-model-view-controller-part-3>