SCIENCES SORBONNE UNIVERSITÉ

Model View Controller (MVC)

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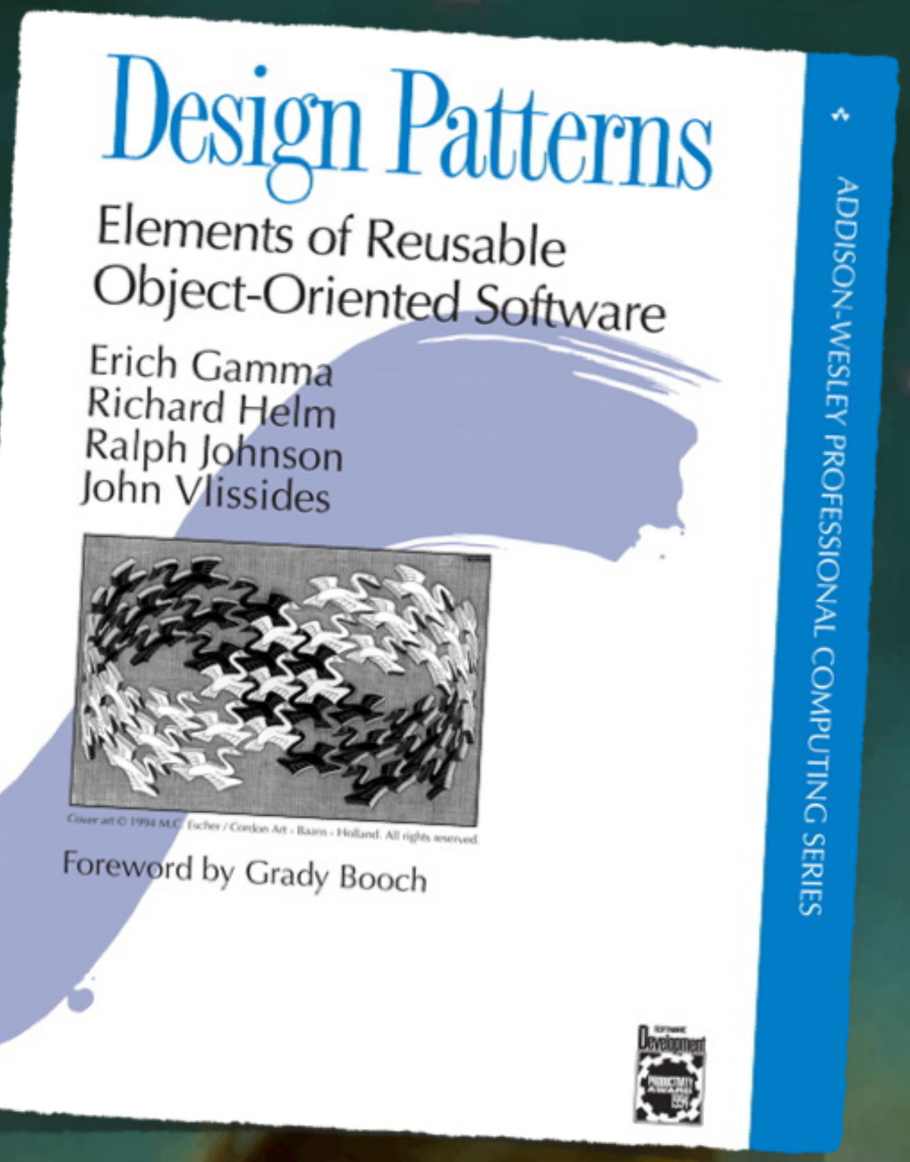
Model View Controller?

Design pattern

- 1995, «gang of four»
  - **Origin, C. Alexandre (A pattern language — architecture)**
- Rules for «smart programming»
  - **Clarifies relationships between classes**
  - **Ease maintenance**
  - **Refined over the years**
- There are numerous patterns
  - **Delegation is one**
  - **Client-server is another one**

To know more…



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Everything You Always Wanted to Know About MVC*

- Describe data
- Characterize the state

Model

*But Were Afraid to Ask

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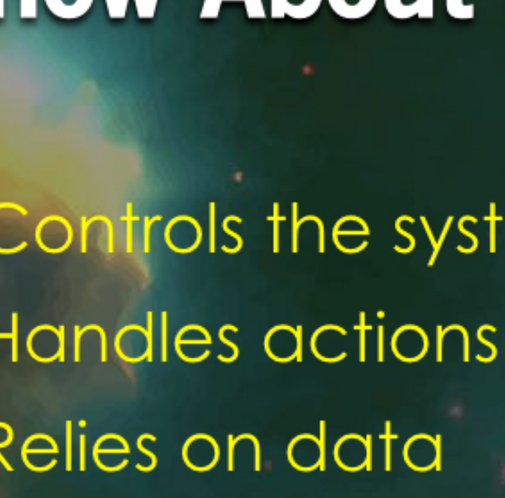
Everything You Always Wanted to Know About MVC*

- Controls the system
- Handles actions
- Relies on data
- Relies on visualization

Model



Controller

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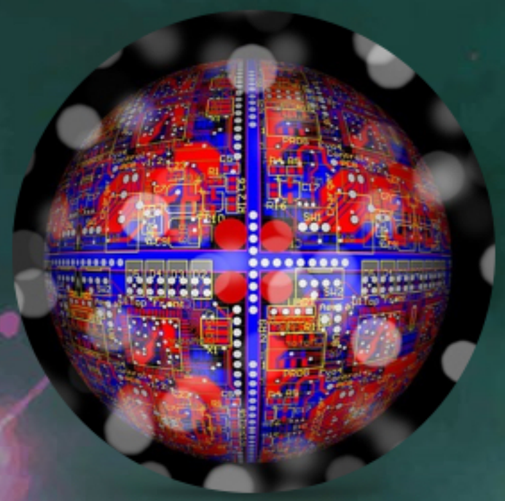
Everything You Always Wanted to Know About MVC*

- interface to the user
- Offers «actuators»

Model



Controller

View

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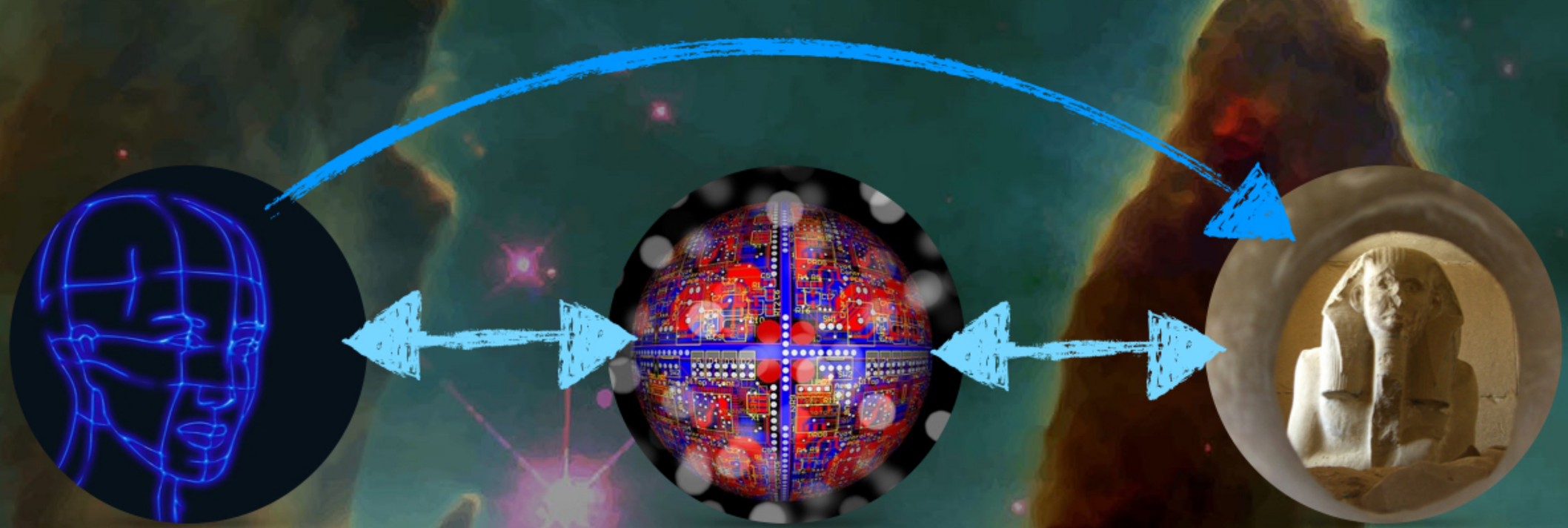
Everything You Always Wanted to Know About MVC*



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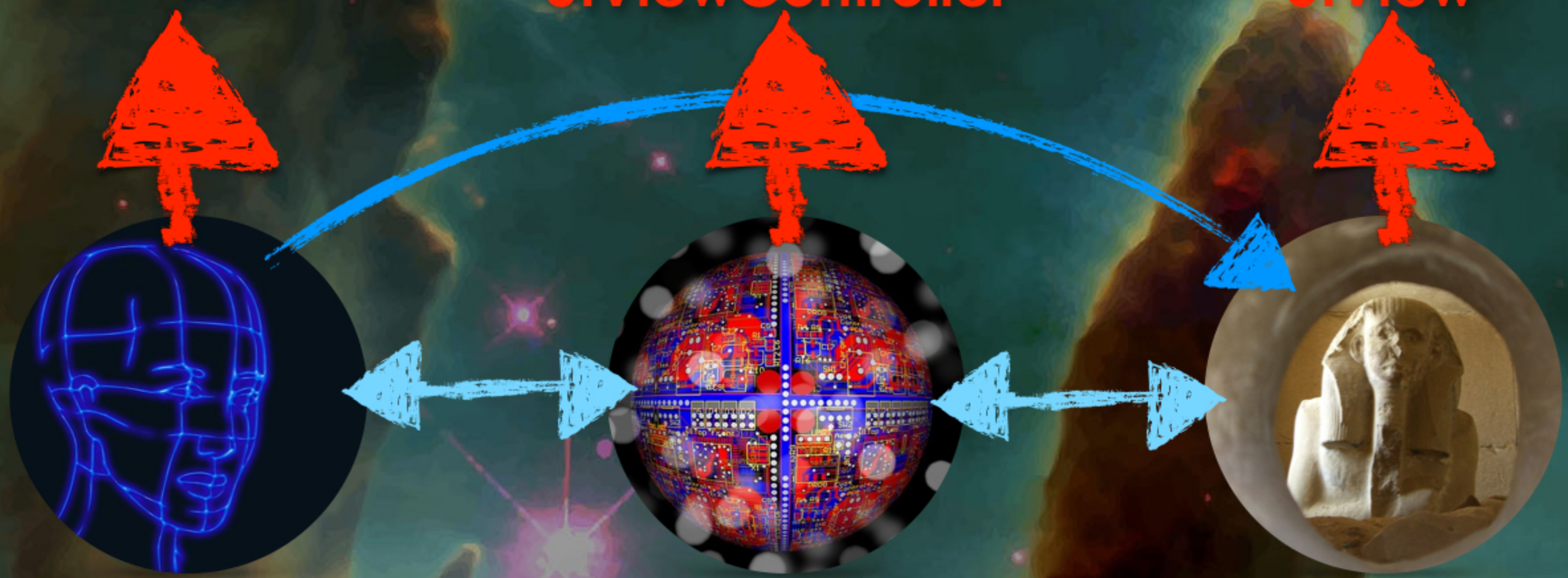
Everything You Always Wanted to Know About MVC*

A class

A class inherited from UIViewController

A class inherited from UIView



Model

Controller

View

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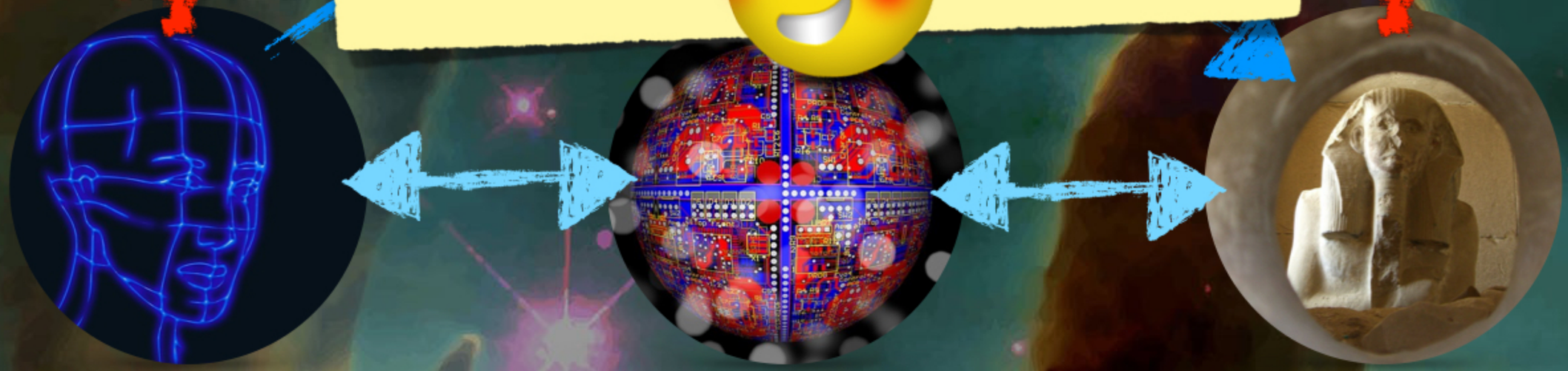
Everything You Always Wanted to Know About MVC*

Shame on me…

In my examples, when the code is concise, I do not systematically follows the MVC model

A class

A class erited from UIView



Model

Controller

View

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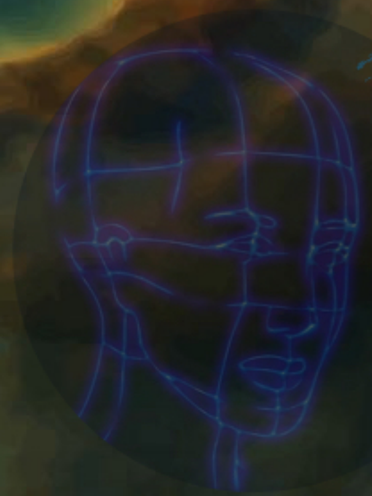
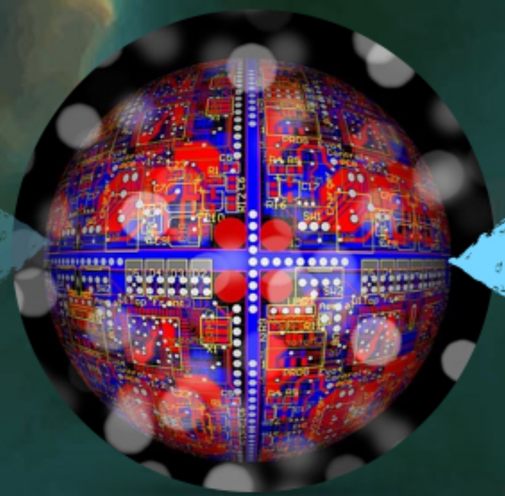
MVC for «ColorChart»



Model



Controller

View

- **No real model**
  - 3 variables or a 3 entries array
- **ViewController**
  - Builds the view + catch events + orientation
- **ColorChartView**
  - Display

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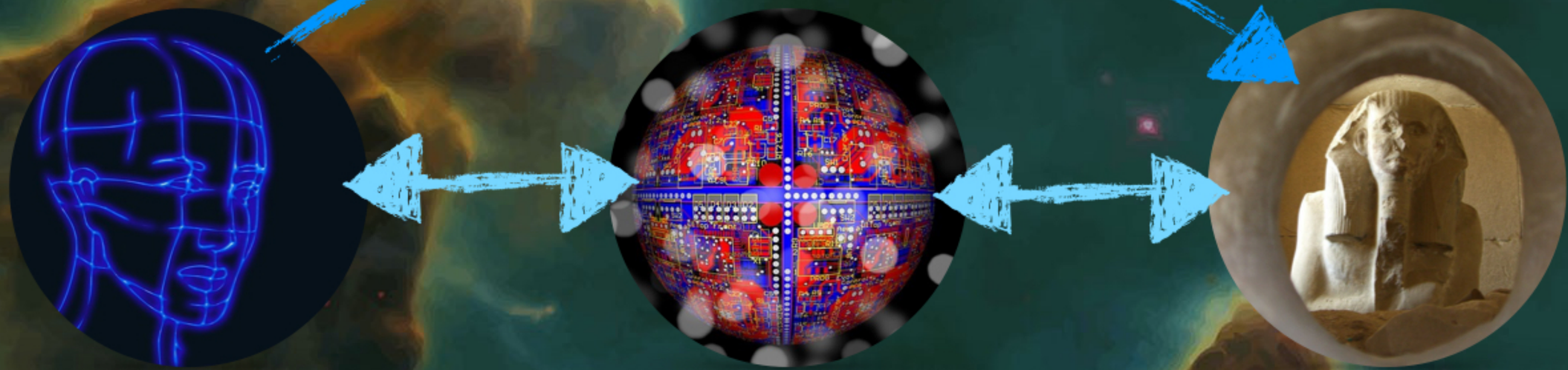
MVC for «quizz»



Model

Controller

View

- **Model**
  - Questions, answers and their context (displayed or not, etc.)
- **Controller**
  - Builds the view + catch events + orientation
- **ColorChartView**
  - Display

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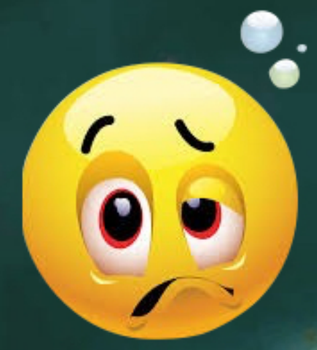
As a conclusion…

Now you know MVC

- You have no excuses..



It is easy to apply

- Moreover, this is typical in User interfaces
  - **iOS**
  - **Android**
  - **Unix/X11**
  - **etc.**

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