

The Philosophy of Redux



Cosmin Ronnin
Frontend Architect / Agile Coach





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Cosmin Ronnin
kosz

Cosmin Ronnin
coszmin@gmail.com

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Cosmin
@cosmin_ronnin
FrontEnd Architect at ATS ; Technologist, Futurist, Evangelist
Toronto

Tweets **Tweets**

Cosmin @cosmir basically, by not t some people hav isn't that too late' succeed quicker

The Philosophy of Redux



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Cosmin Ronnin
Frontend Architect & Agile Coach at Allied Technical Solutions





→ C Secure | <https://www.youtube.com/watch?v=nYkdrAPrdcw>

YouTube Kérko

FLUX

- Improved data consistency
- Easier to pinpoint root of a bug
- More meaningful unit tests

21:21 / 44:35

▶ ▶! 🔍

21:21 / 44:35

HD

Once upon a time, Facebook developers kept fixing a recurring bug.
What happened next was going to change the way we build web apps forever ...

Hacker Way: Rethinking Web App Development at Facebook

617 733 shikime

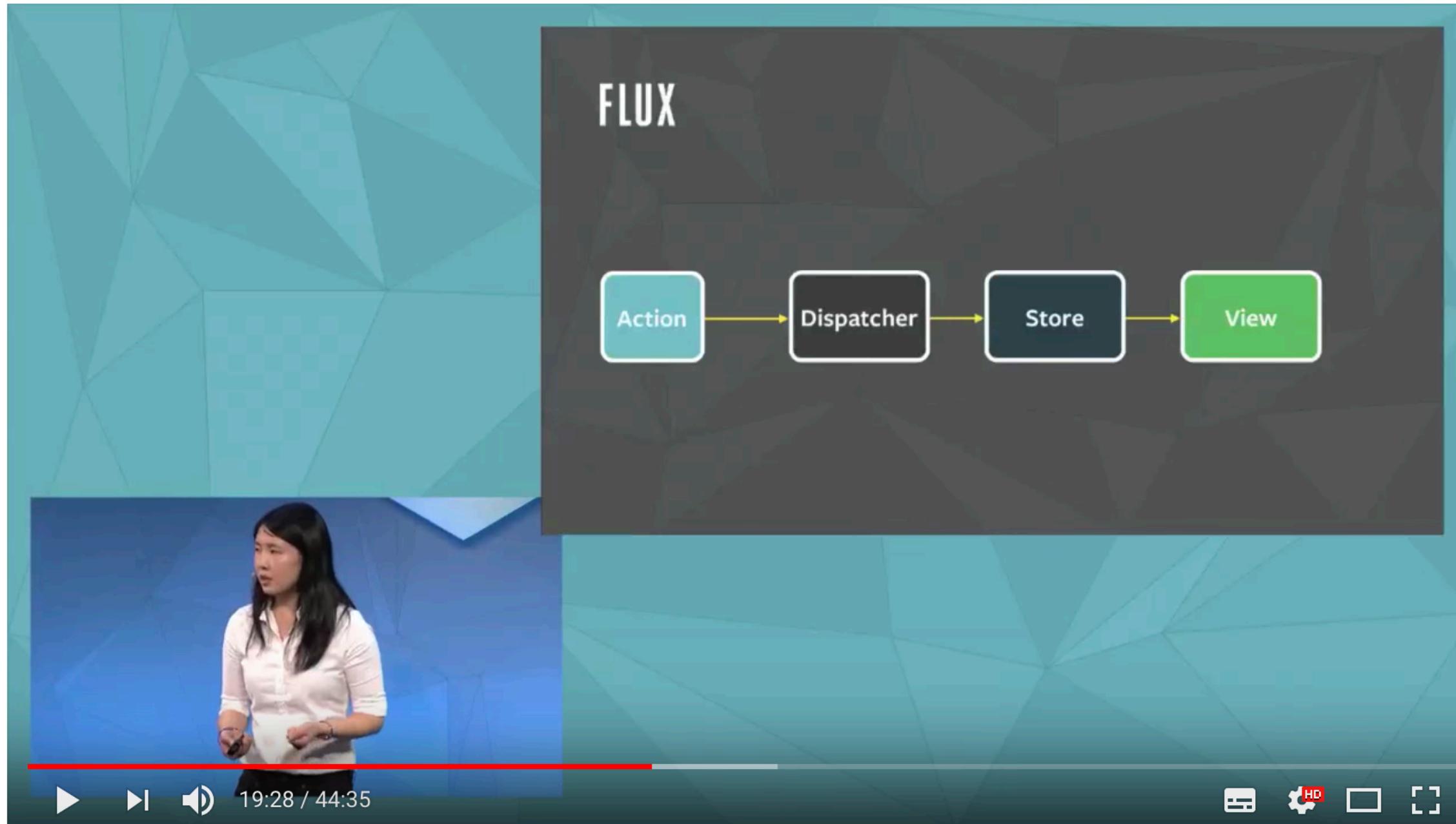
1 2,5 MIJË

94

SHPËRNDA

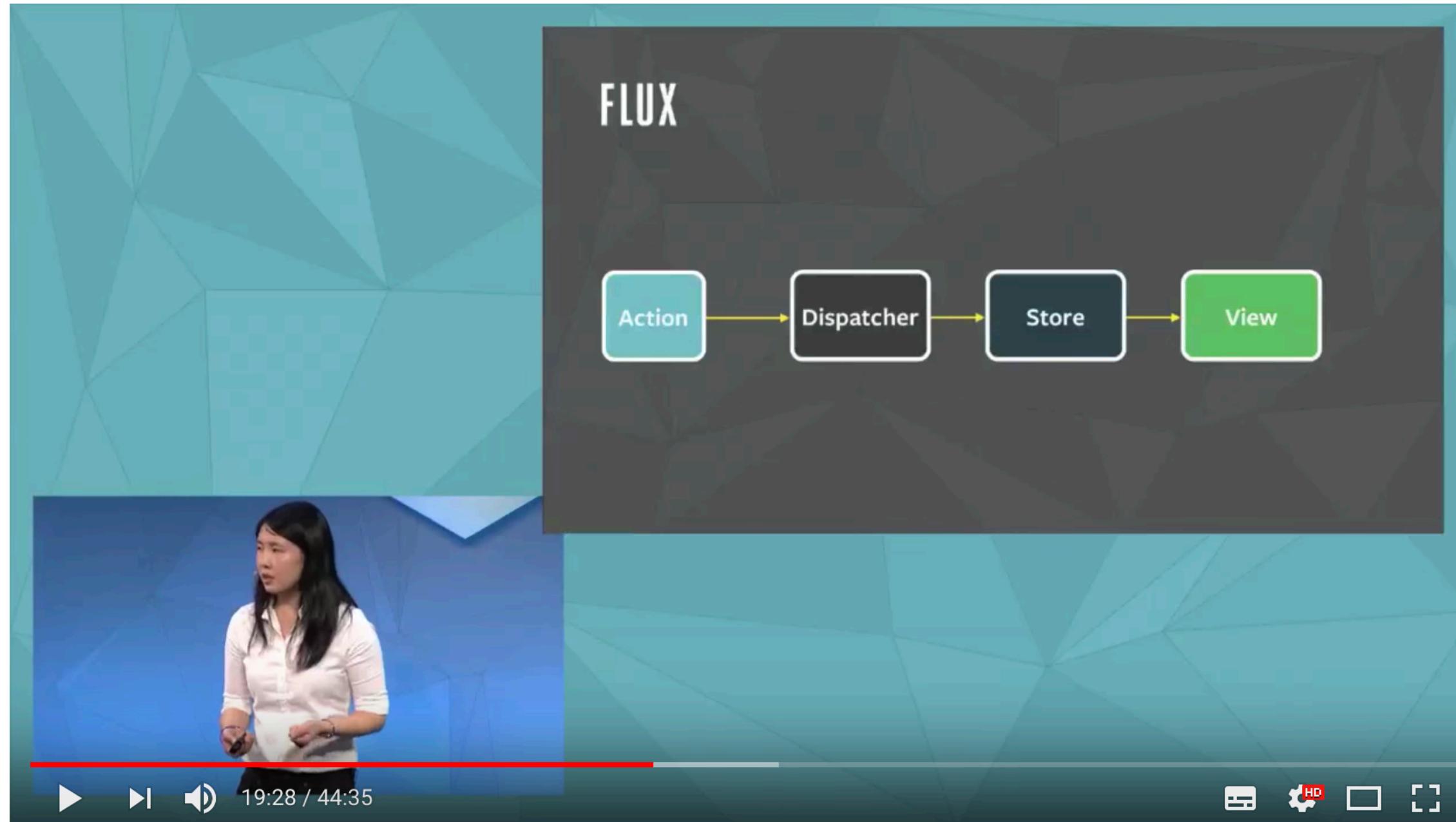
≡+

...



The recurring bug clearly exposed the limitations of the MVC pattern and OOP thinking for State Management in Single Page, Highly Asynchronous user interface Applications

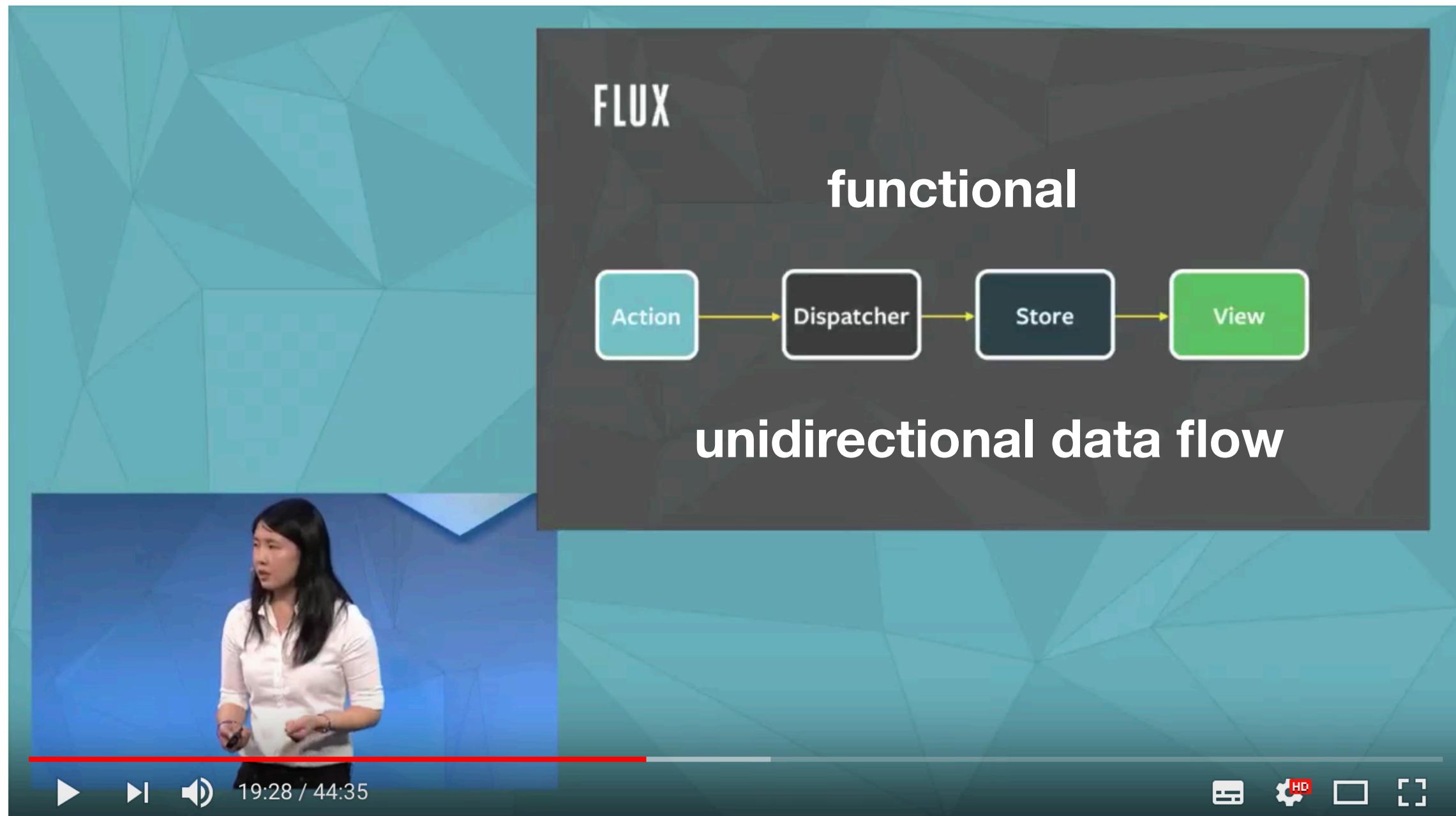
Hacker Way: Rethinking Web App Development at Facebook



The recurring bug clearly exposed the limitations of the MVC pattern and OOP thinking for State Management in Single Page, Highly Asynchronous user interface Applications

The alternative initially proposed by the Facebook teams was a functional based unidirectional data flow architectural pattern which they called Flux.

Hacker Way: Rethinking Web App Development at Facebook



Hacker Way: Rethinking Web App Development at Facebook

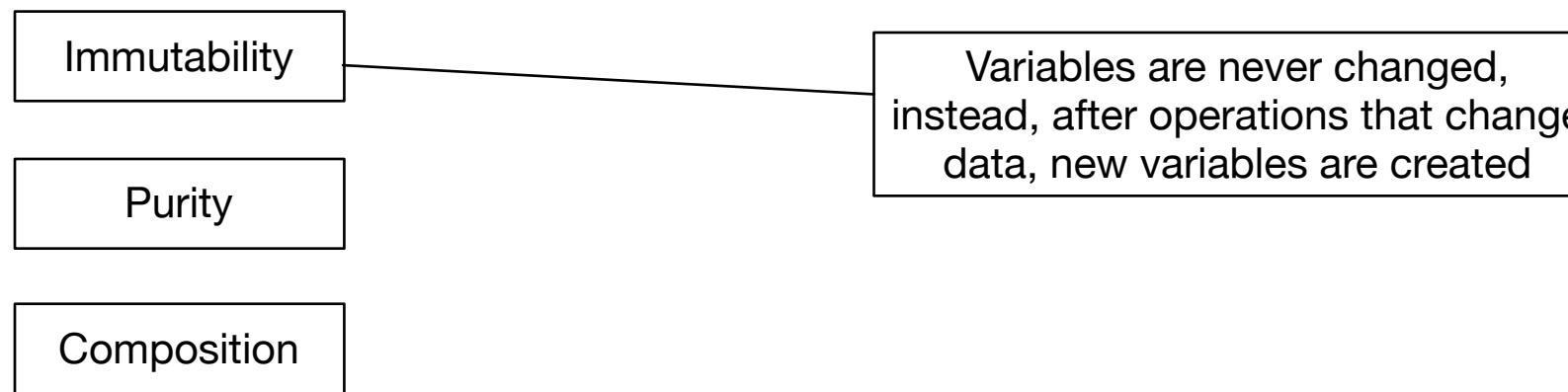
functional

Immutability

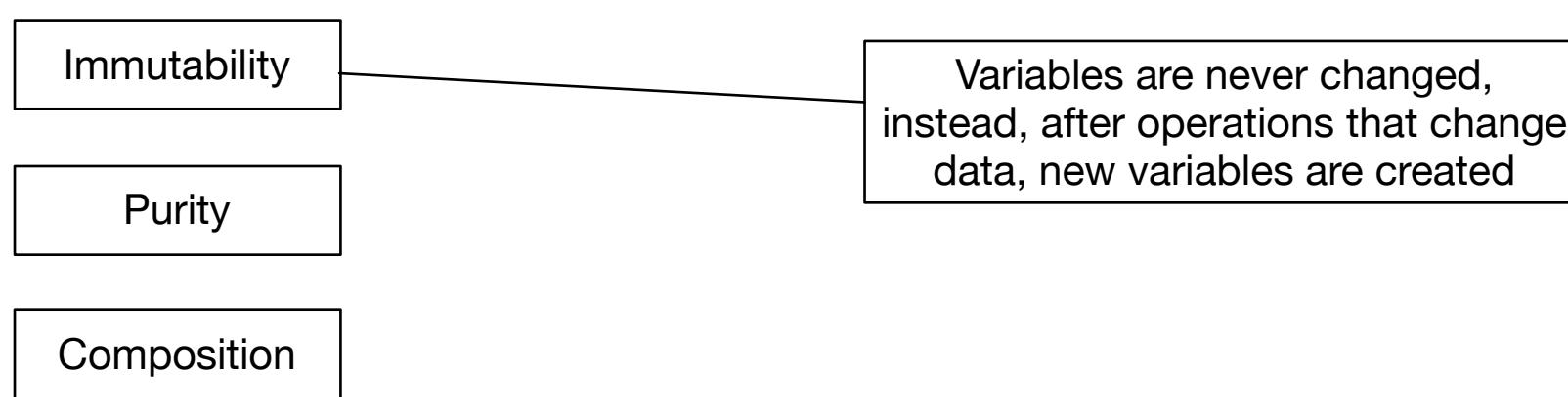
Purity

Composition

functional



functional



```
0 let array = [ 1, 2, 3 ];
1 // this operation mutates the array
2 array.push(4);
3
4 // this is an immutable operation which
5 // creates a new array leaving the old one intact
6
7
8 let new_array = [ ...array, 5 ];
9
```



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ABONOHU 102 MIJË

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617 733 shikime

1 2,5 MIJË

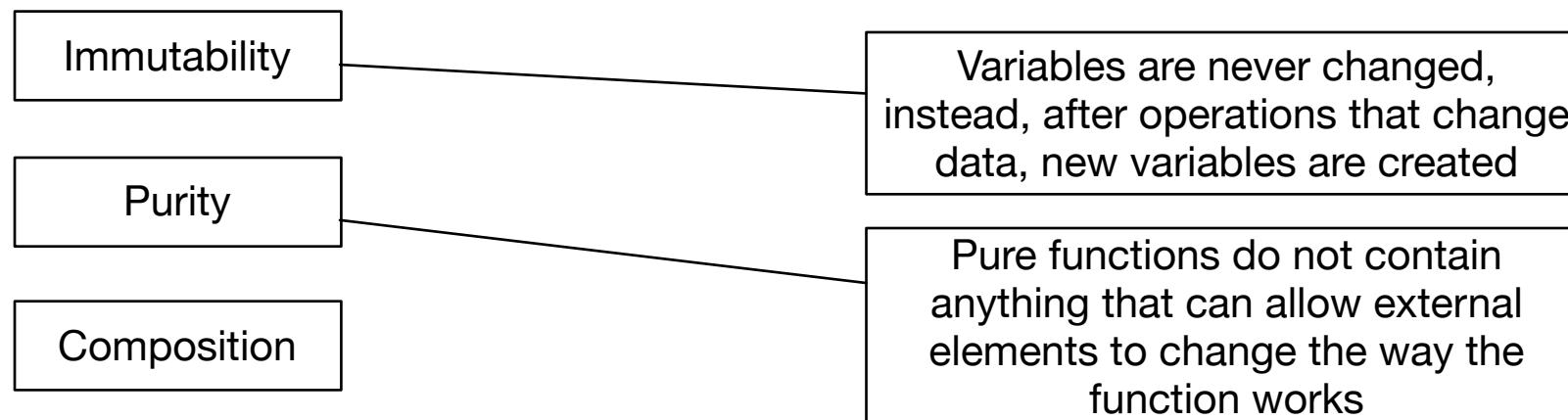
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SHPËRNDA

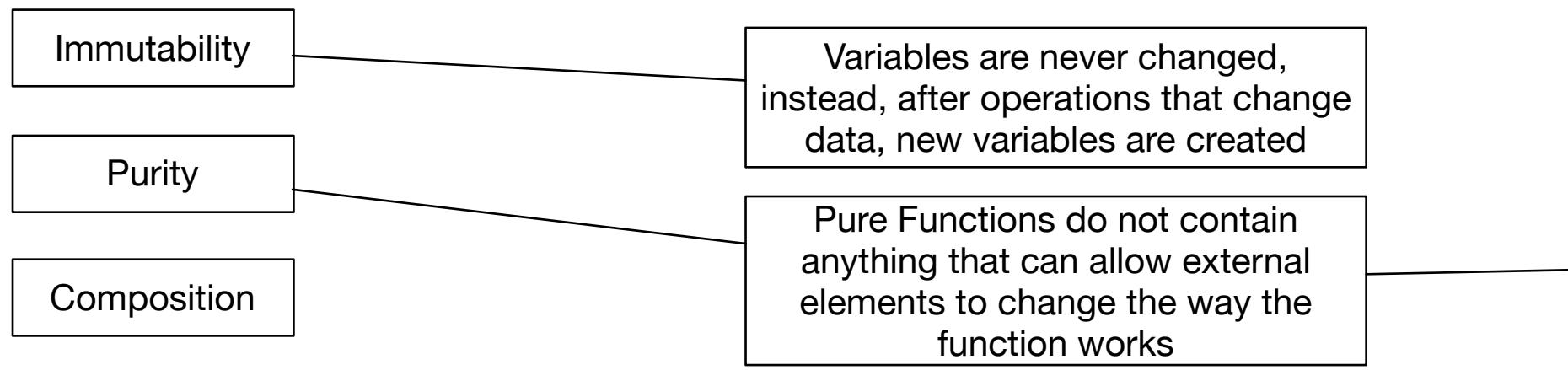
≡+

...

functional



functional



```
0 let greeting = 'Salut';
1 function impureGreet(name) {
2   console.log(` ${greeting} ${name}`);
3 }
4
5 function pureGreet(greet, name) {
6   console.log(` ${greet} ${name}`);
7 }
```



→ C Secure | <https://www.youtube.com/watch?v=nYkdrAPrdcw>

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FLUX

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ABONOHU 102 MIJË

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2,5 MIJË

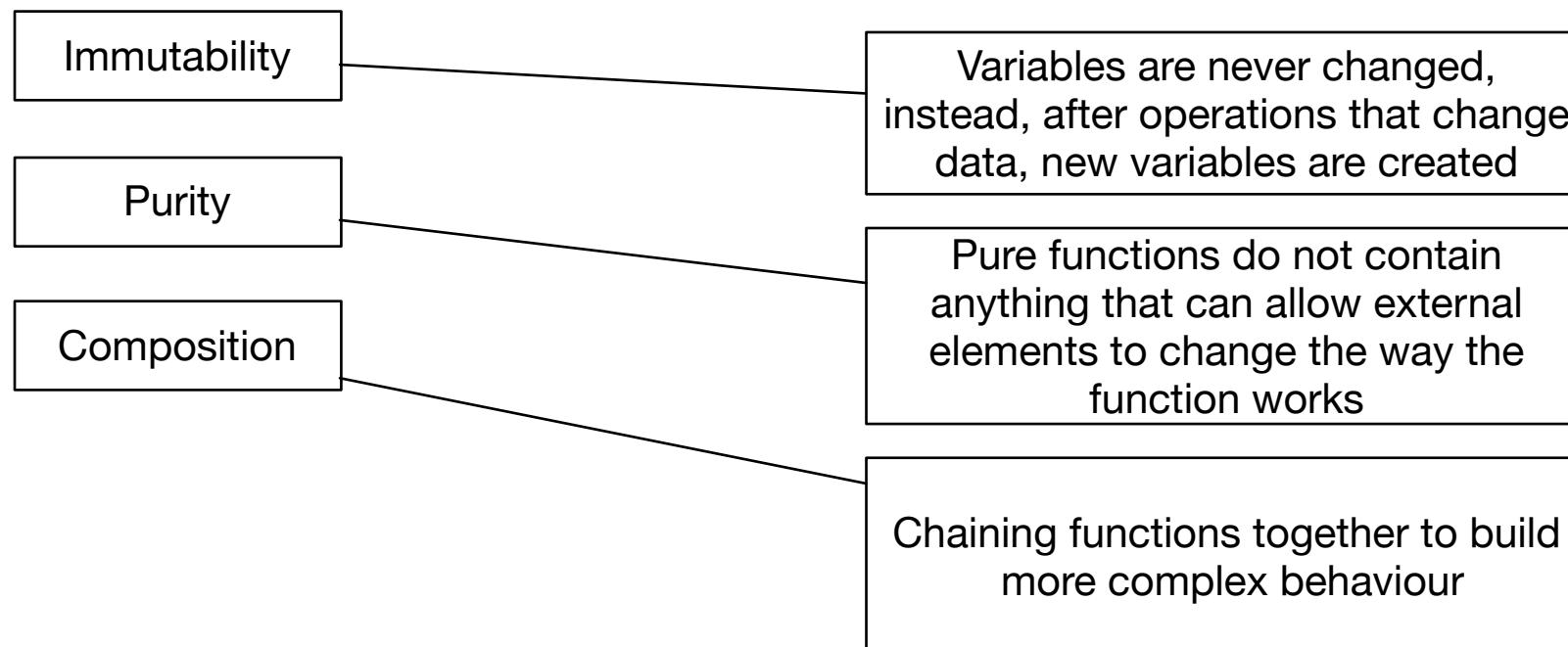
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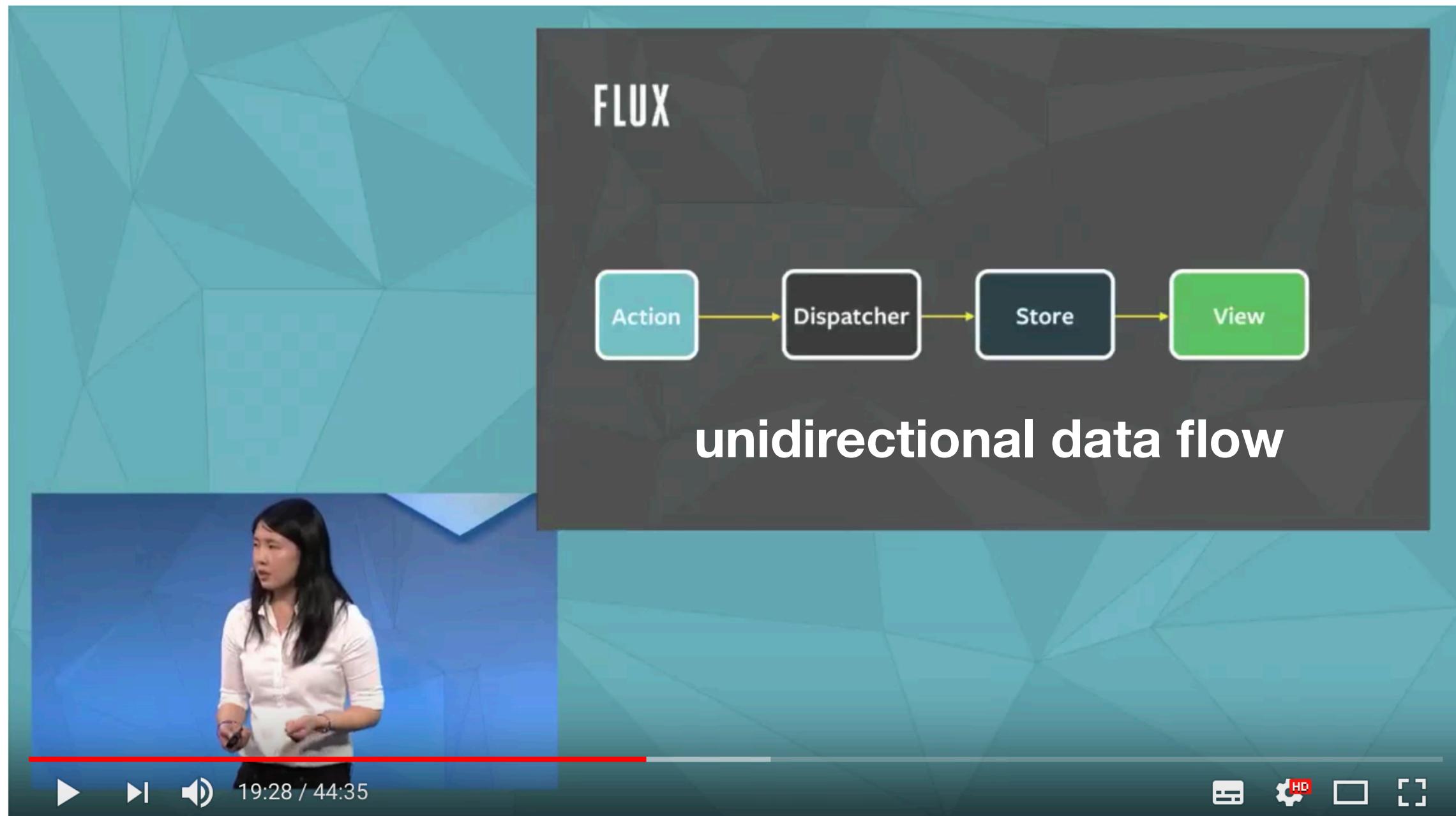
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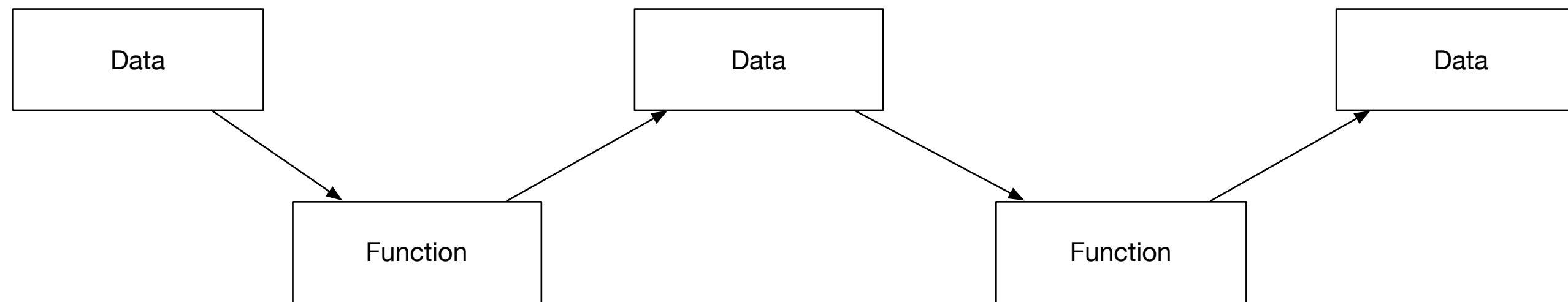
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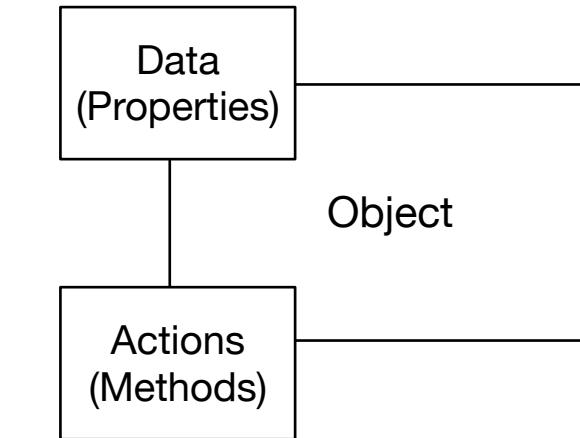
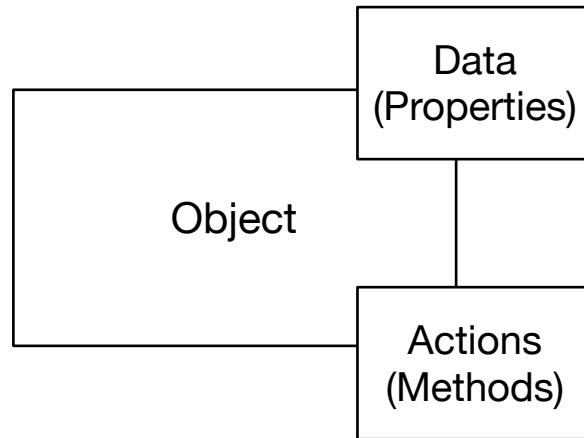
functional





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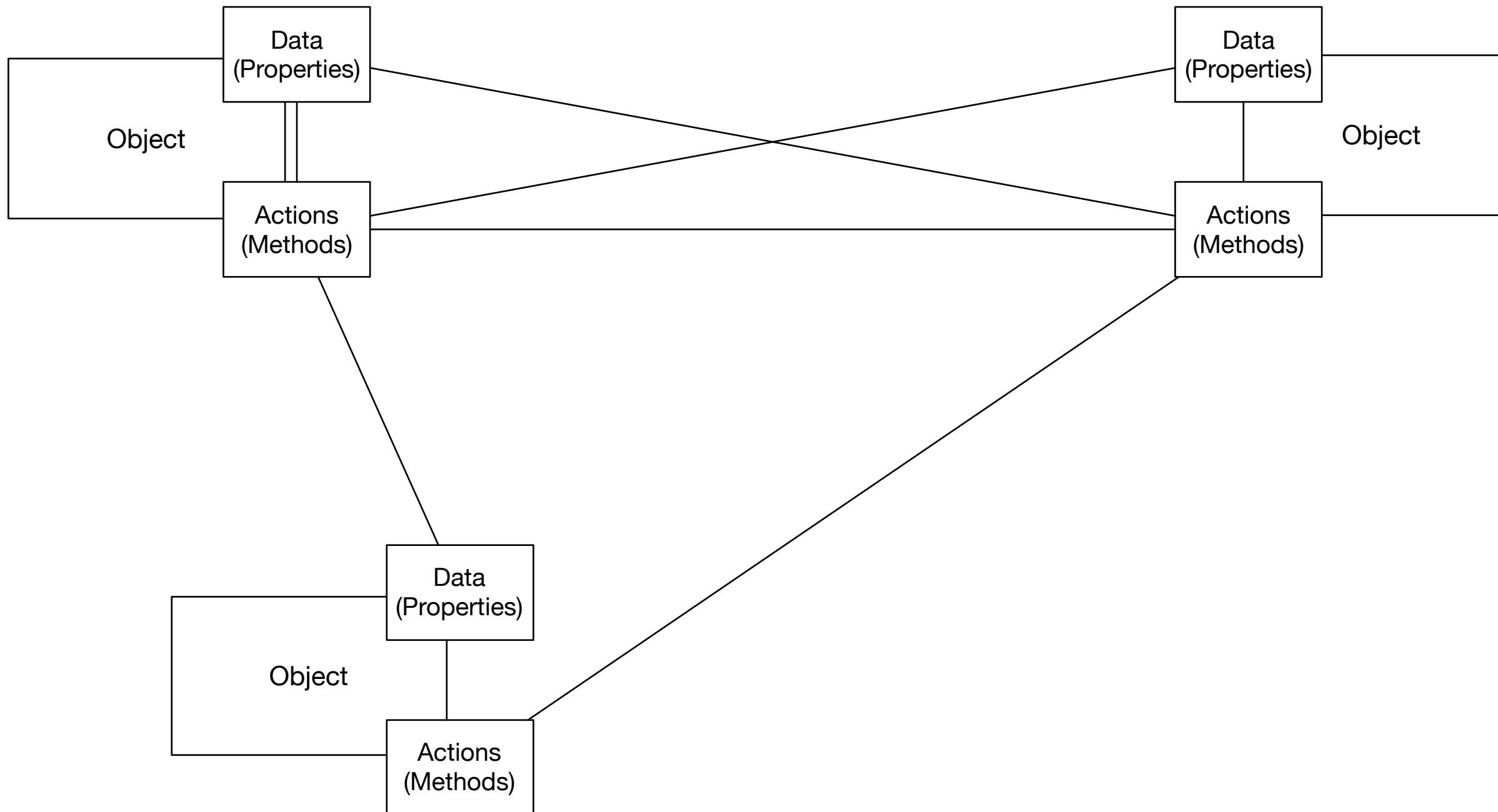


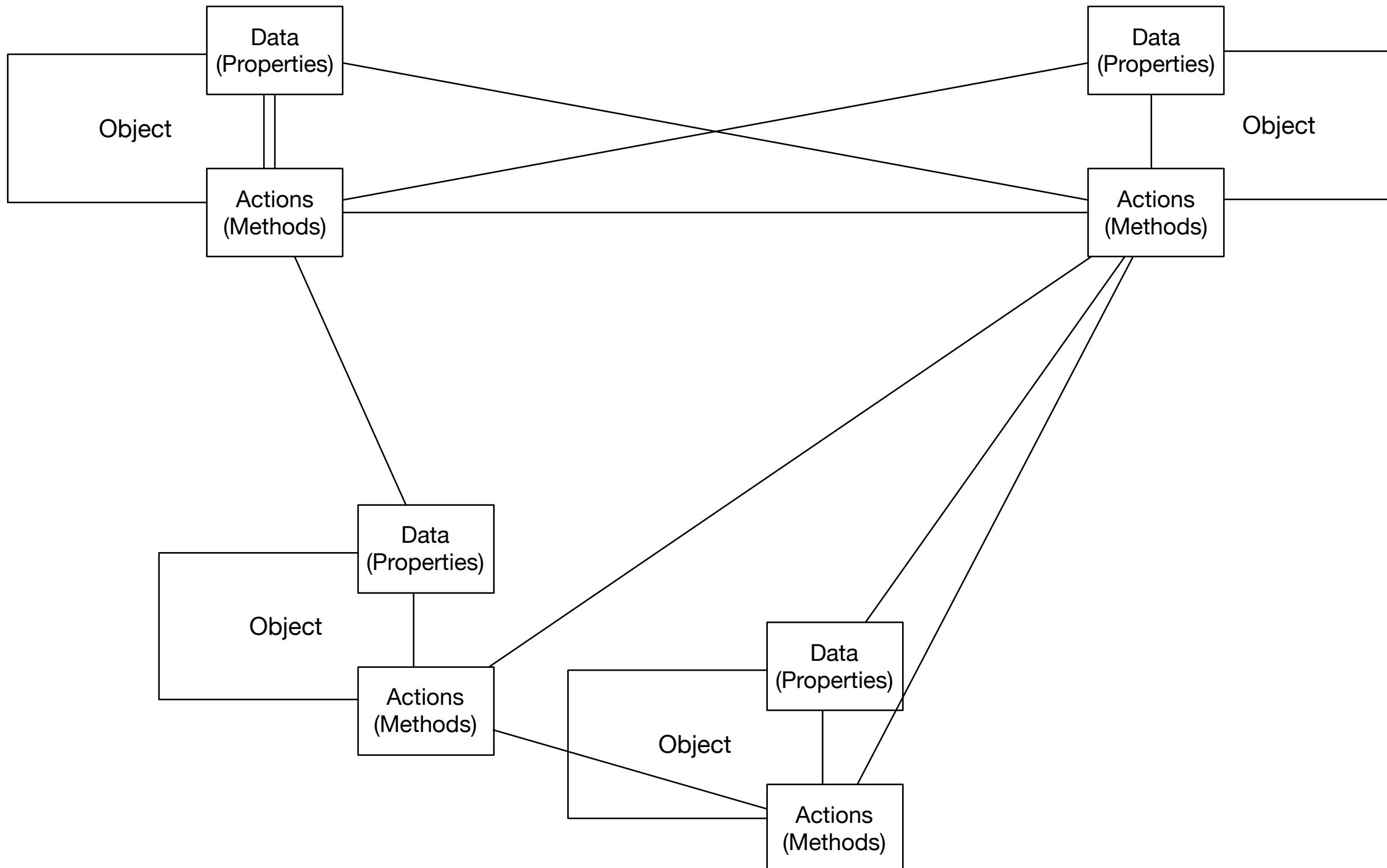


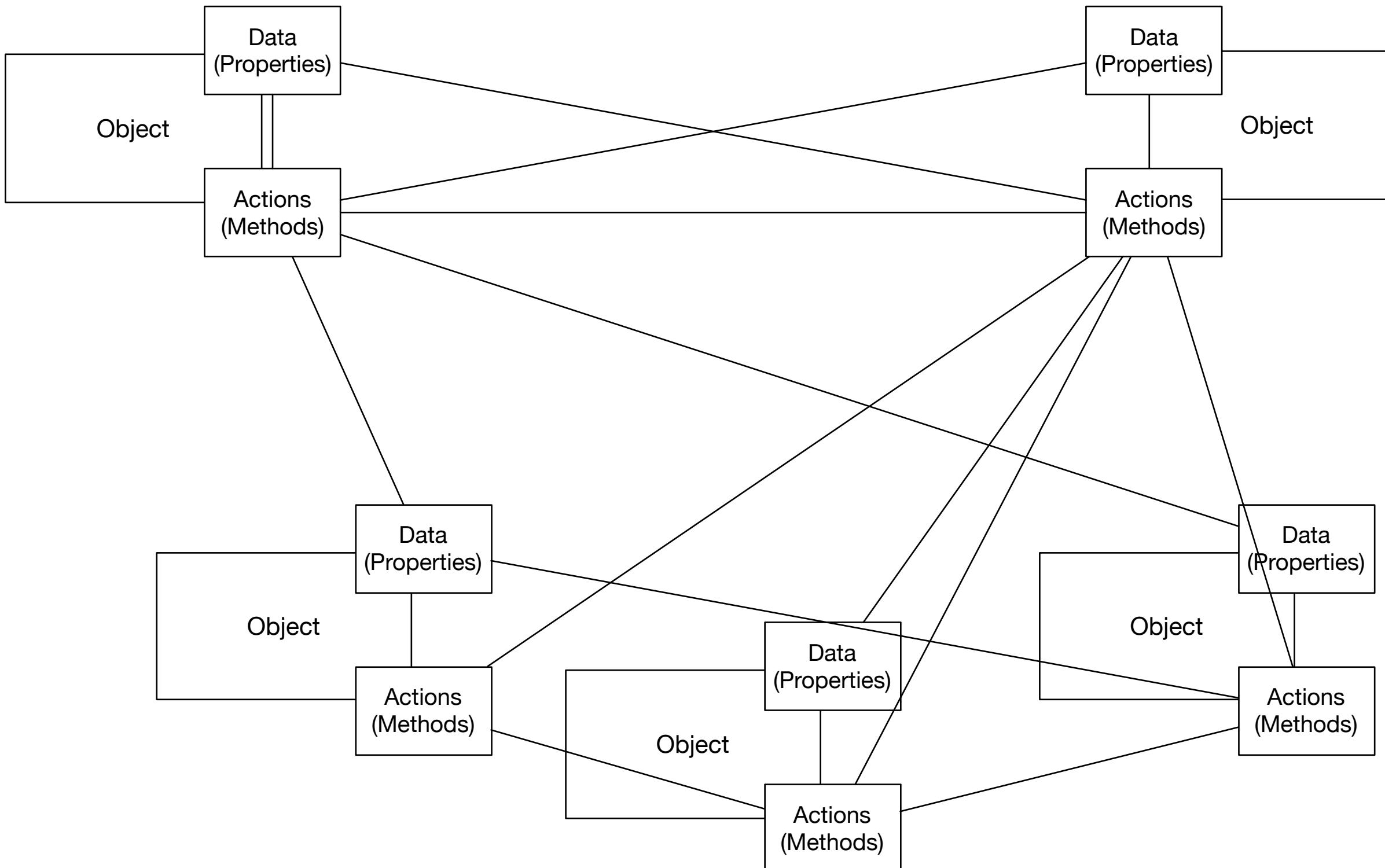
In OOP the most important concept is the Object.

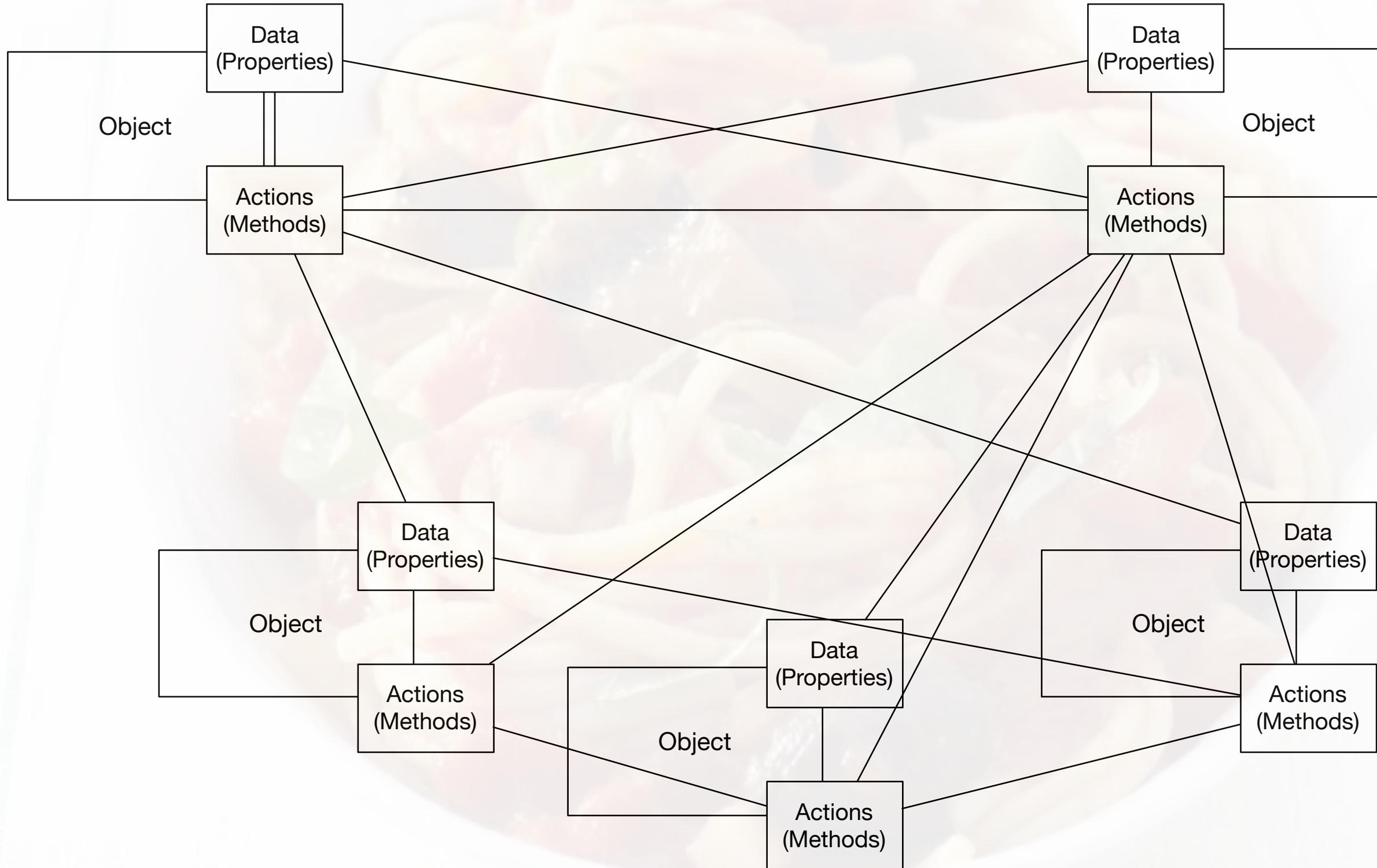
Based on a class it does things and it knows things (represents data).

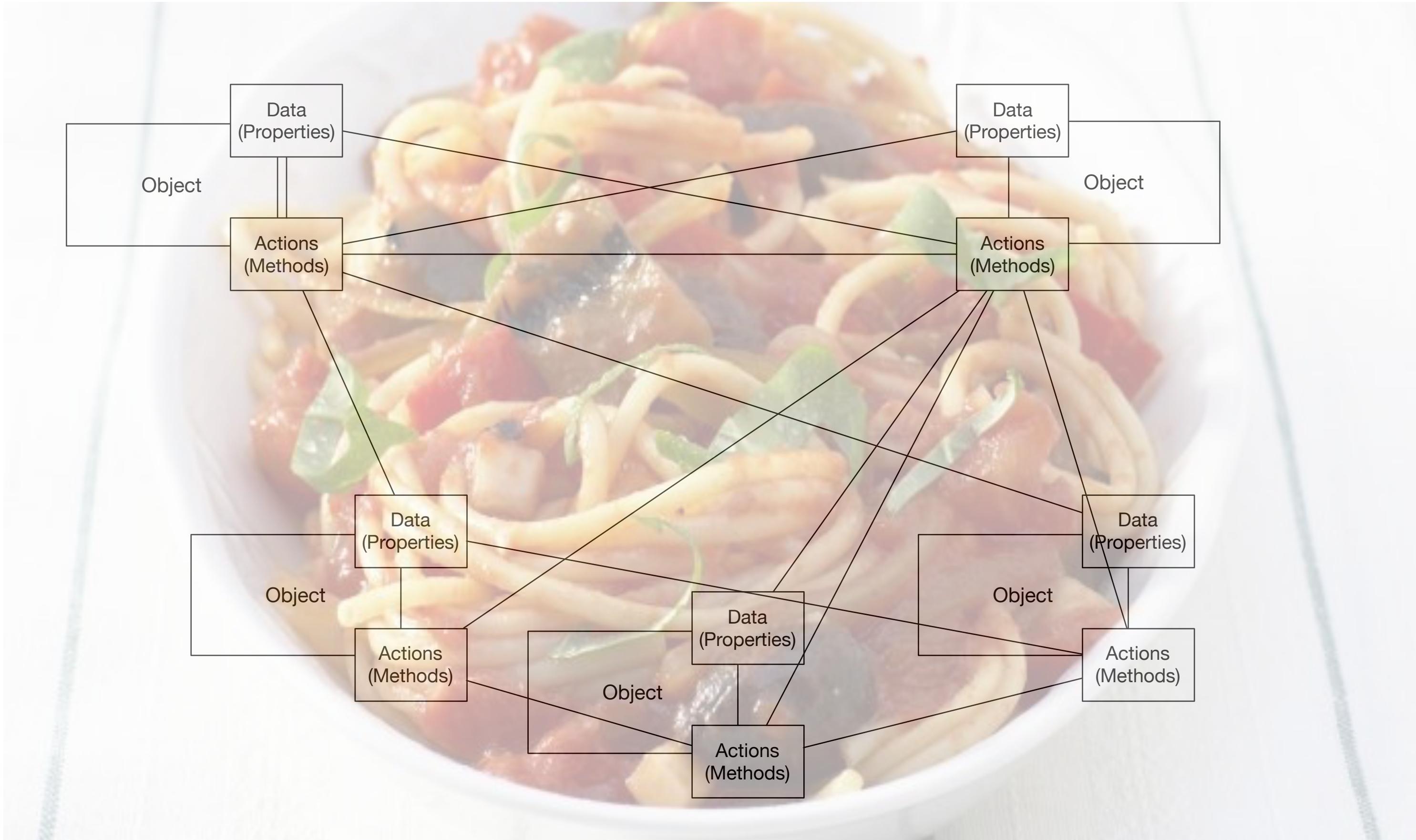
OOP inherently uses impure functions, since the Class(object) (instance)methods use and mutate instance properties.

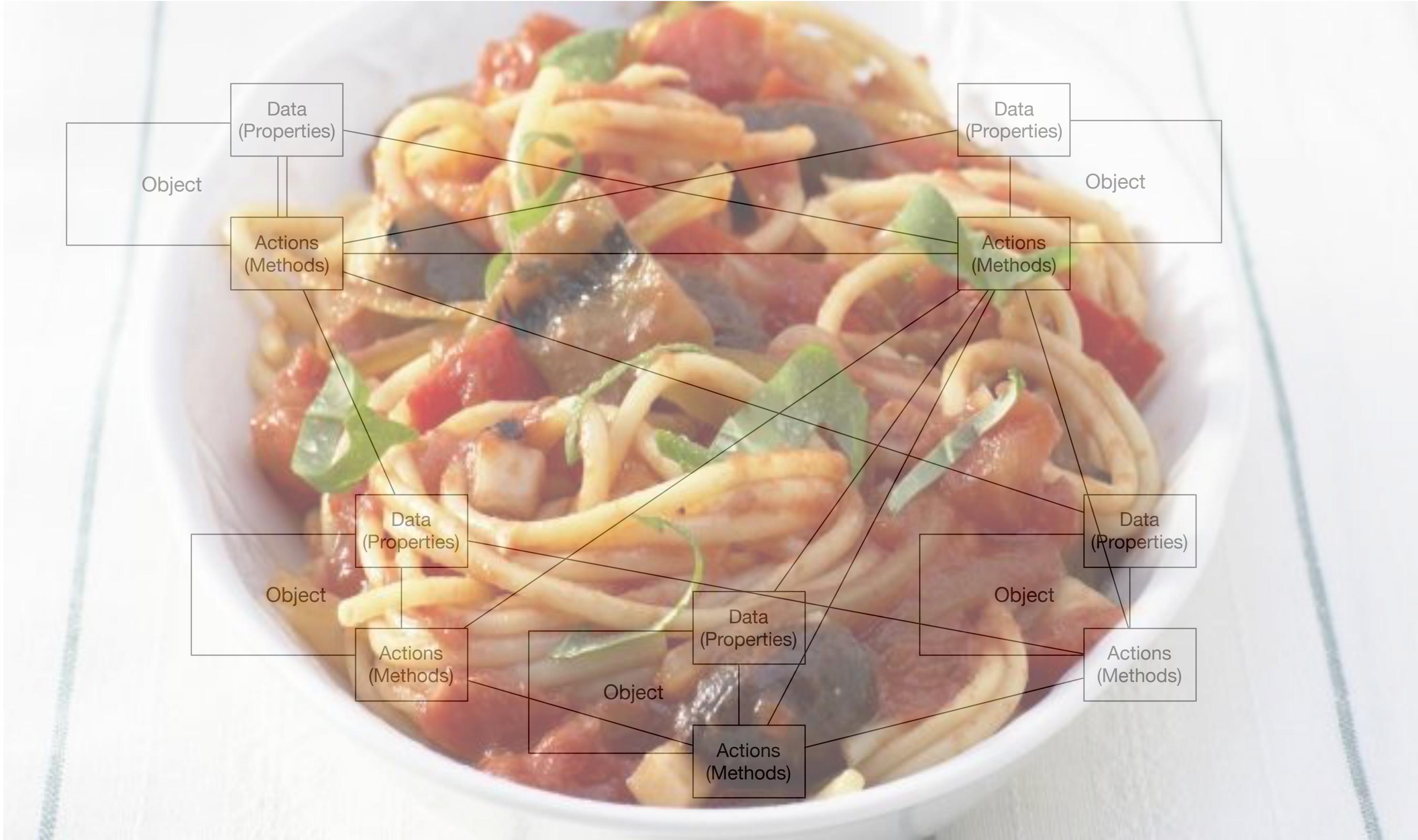






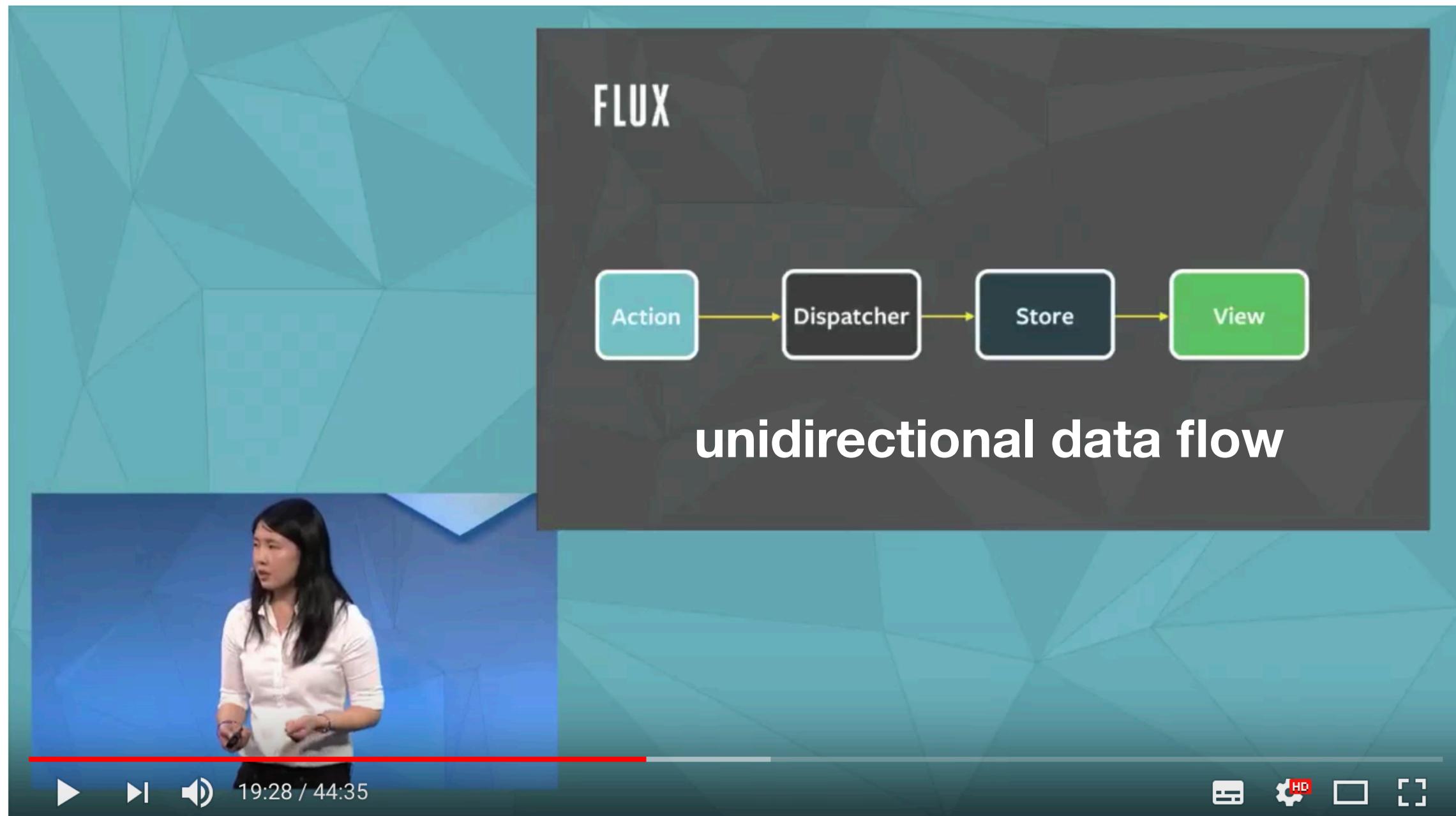




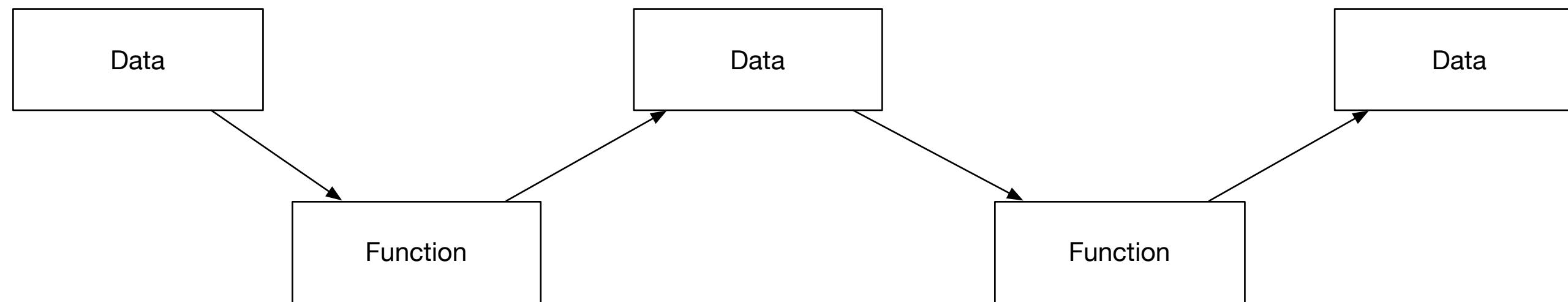


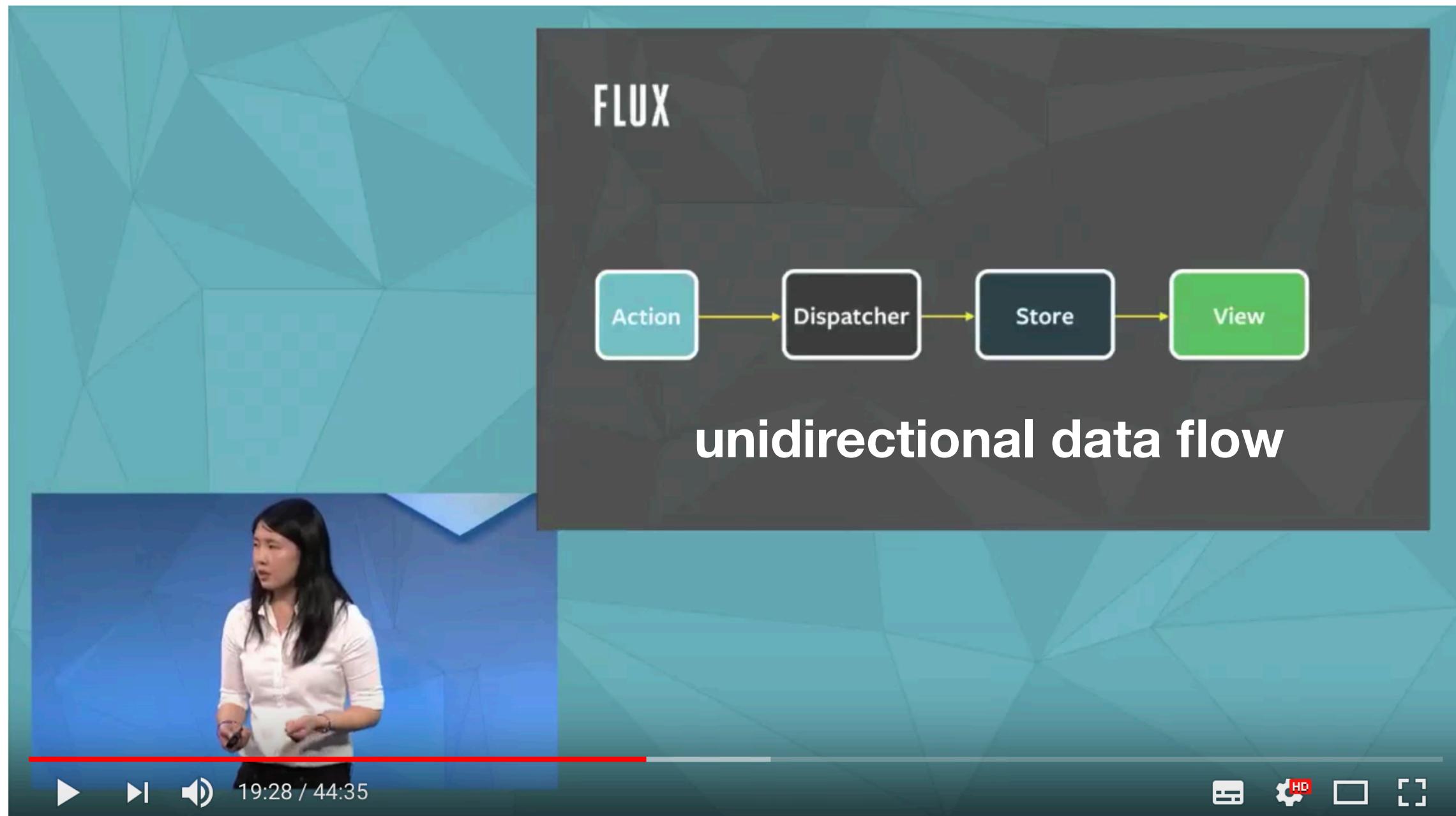




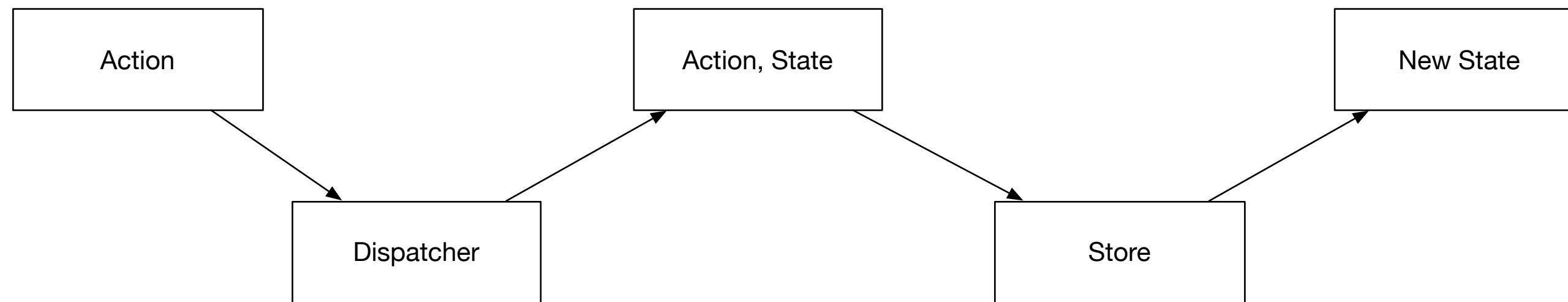


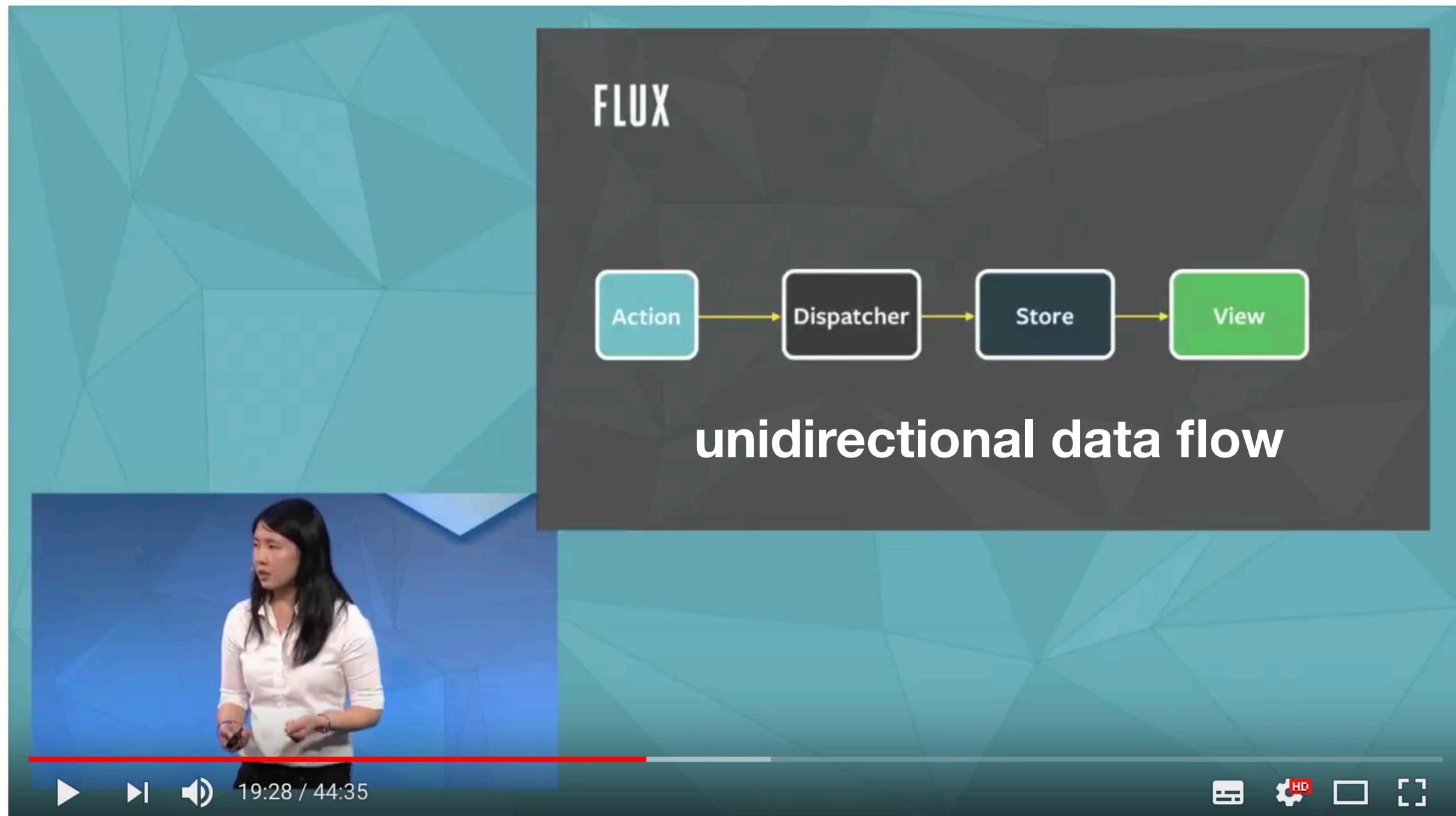
Hacker Way: Rethinking Web App Development at Facebook





Hacker Way: Rethinking Web App Development at Facebook





Hacker Way: Rethinking Web App Development at Facebook



Pure, functional, predictable, time travelling, handsome



Doing

Whatever Dan
Abramov says to do

O RLY?

@ThePracticalDev

Pure, functional, predictable, time travelling, handsome



Doing

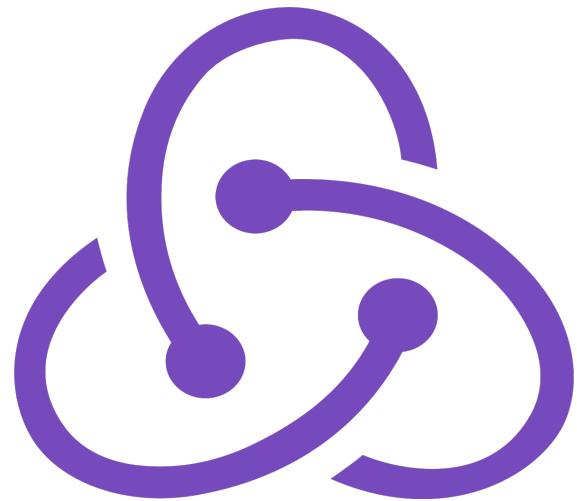
Whatever Dan
Abramov says to do

O RLY?

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Redux



Redux

Google redux three principles

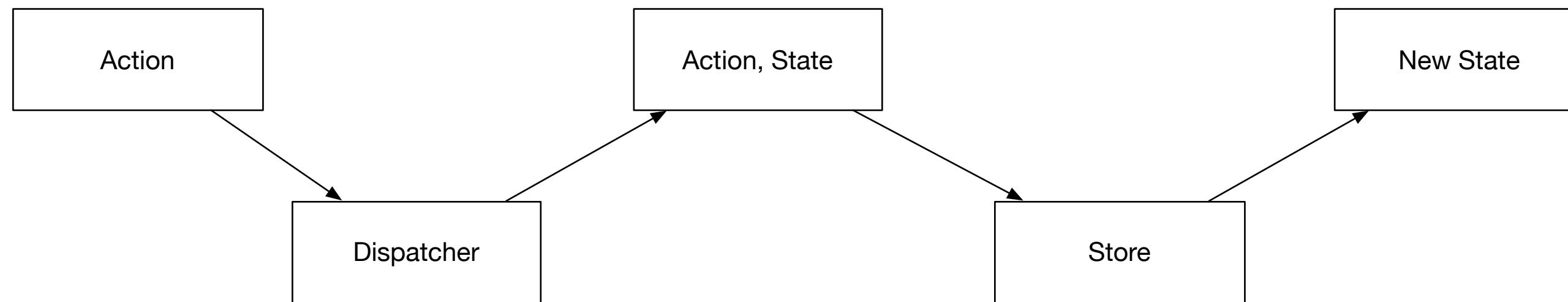
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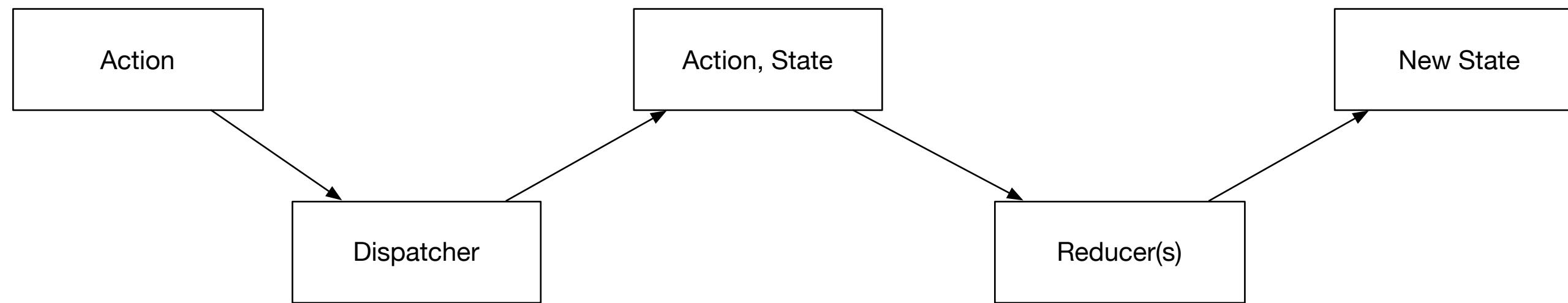
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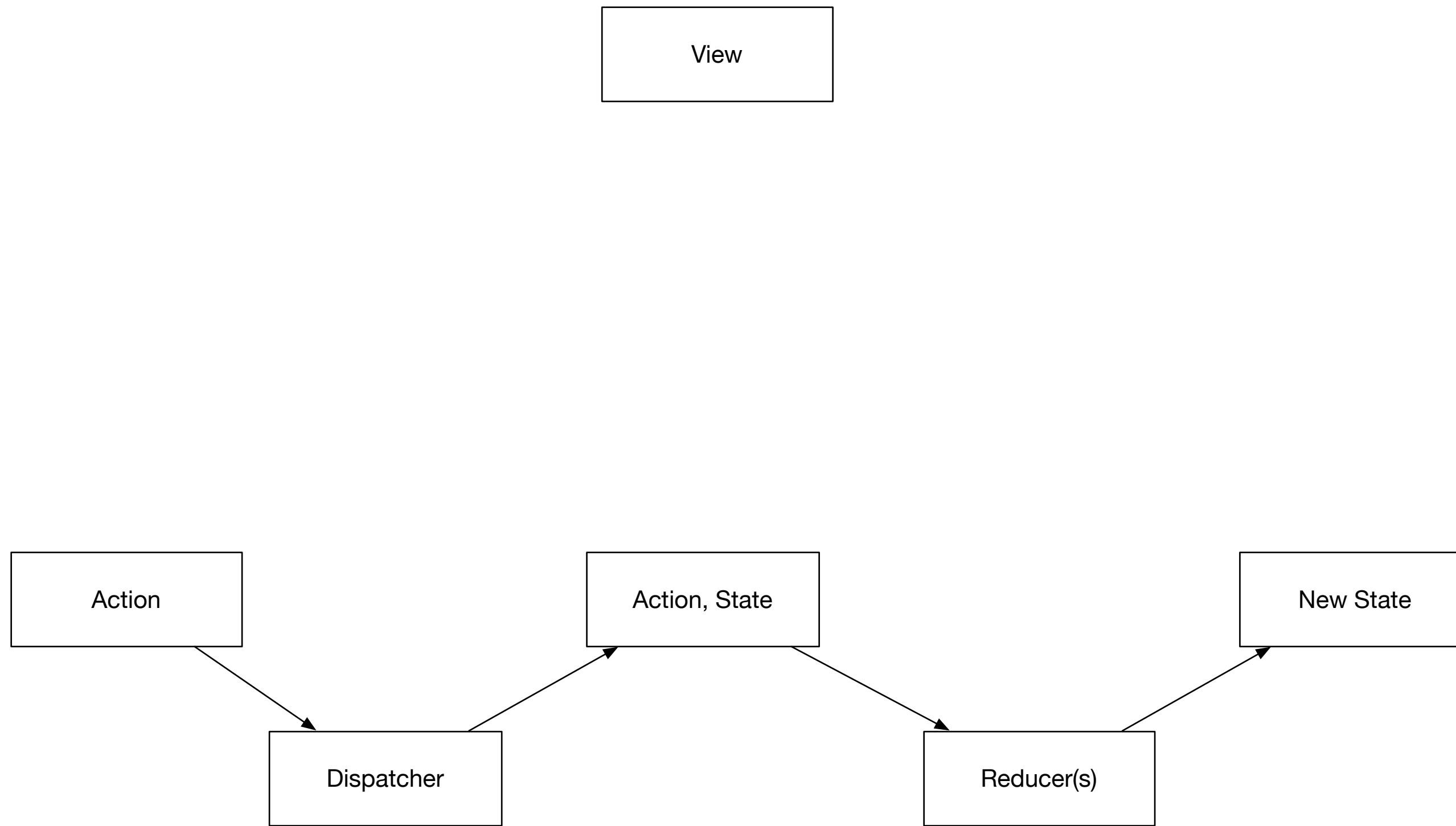
Redux can be described in three fundamental principles:

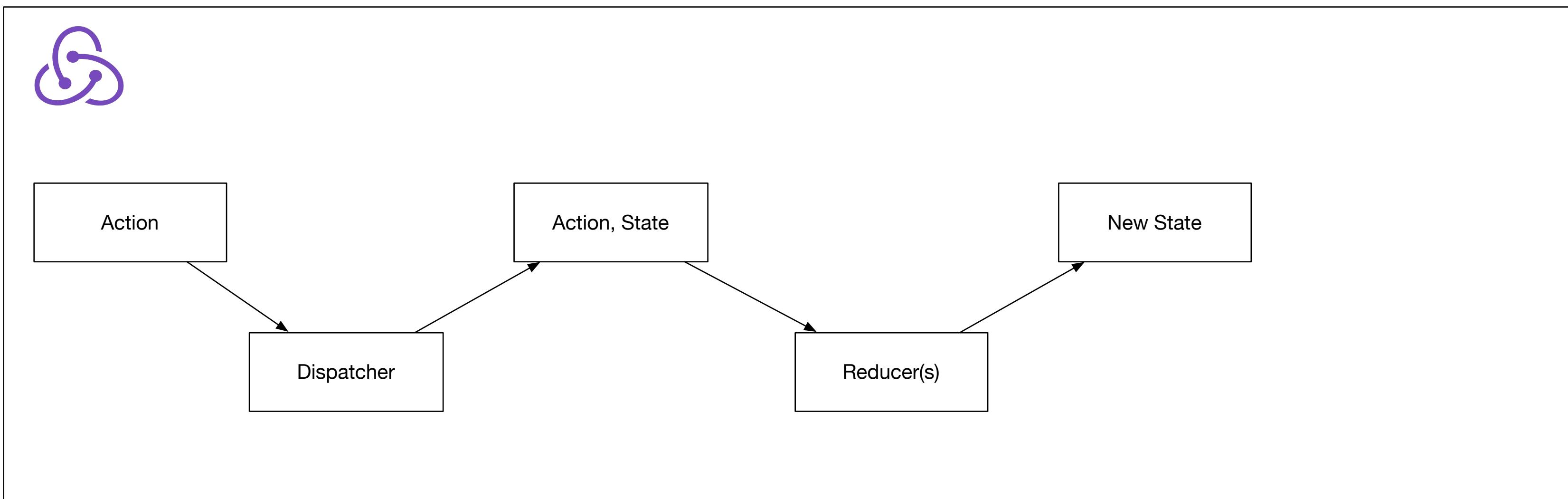
- Single source of truth. The state of your whole application is stored in an object tree within a single store. ...
- State is read-only. The only way to change the state is to emit an action, an object describing what happened. ...
- Changes are made with pure functions.

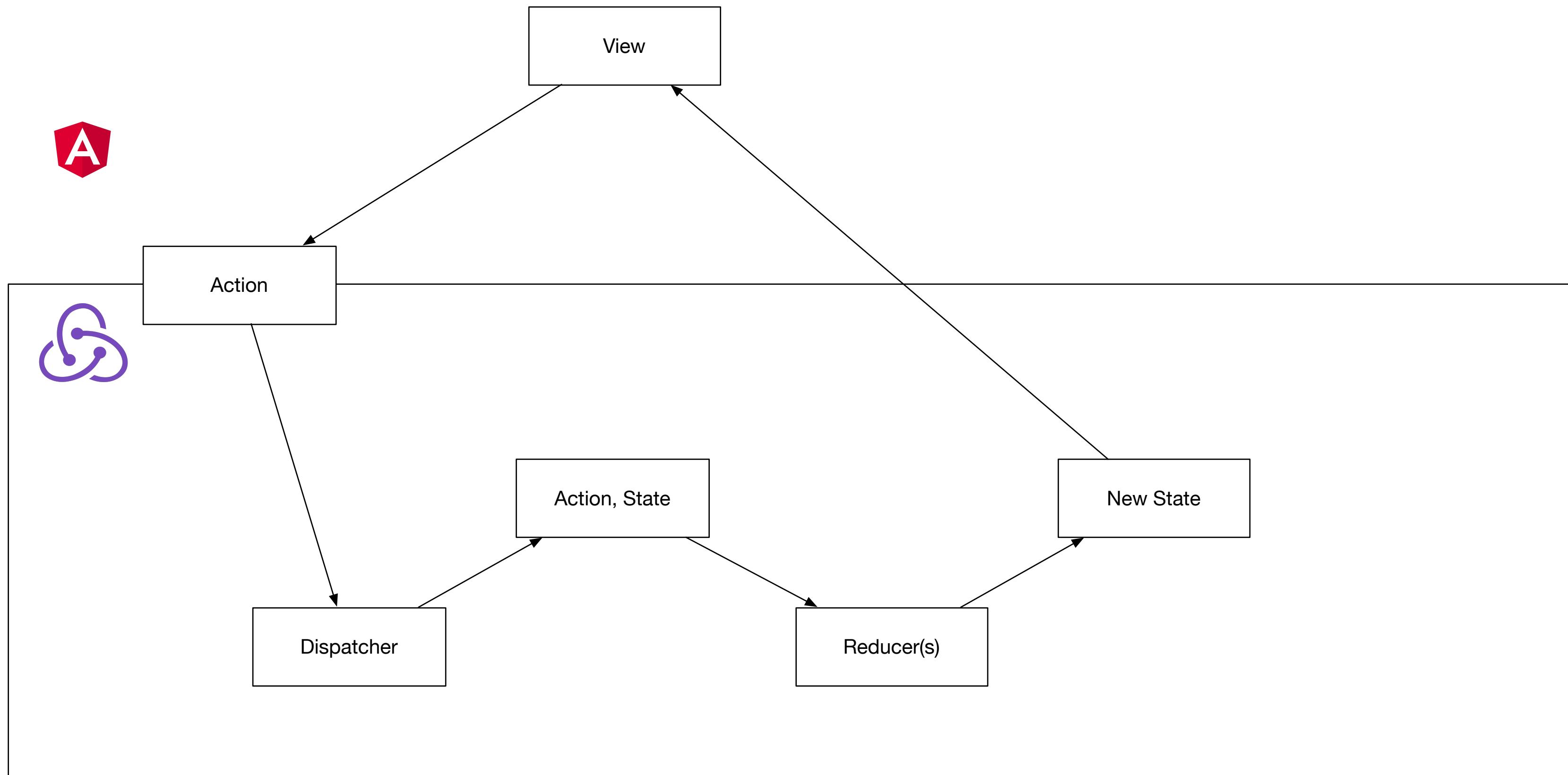
[redux/ThreePrinciples.md at master · reactjs/redux · GitHub](#)
<https://github.com/reactjs/redux/blob/master/docs/introduction/ThreePrinciples.md>

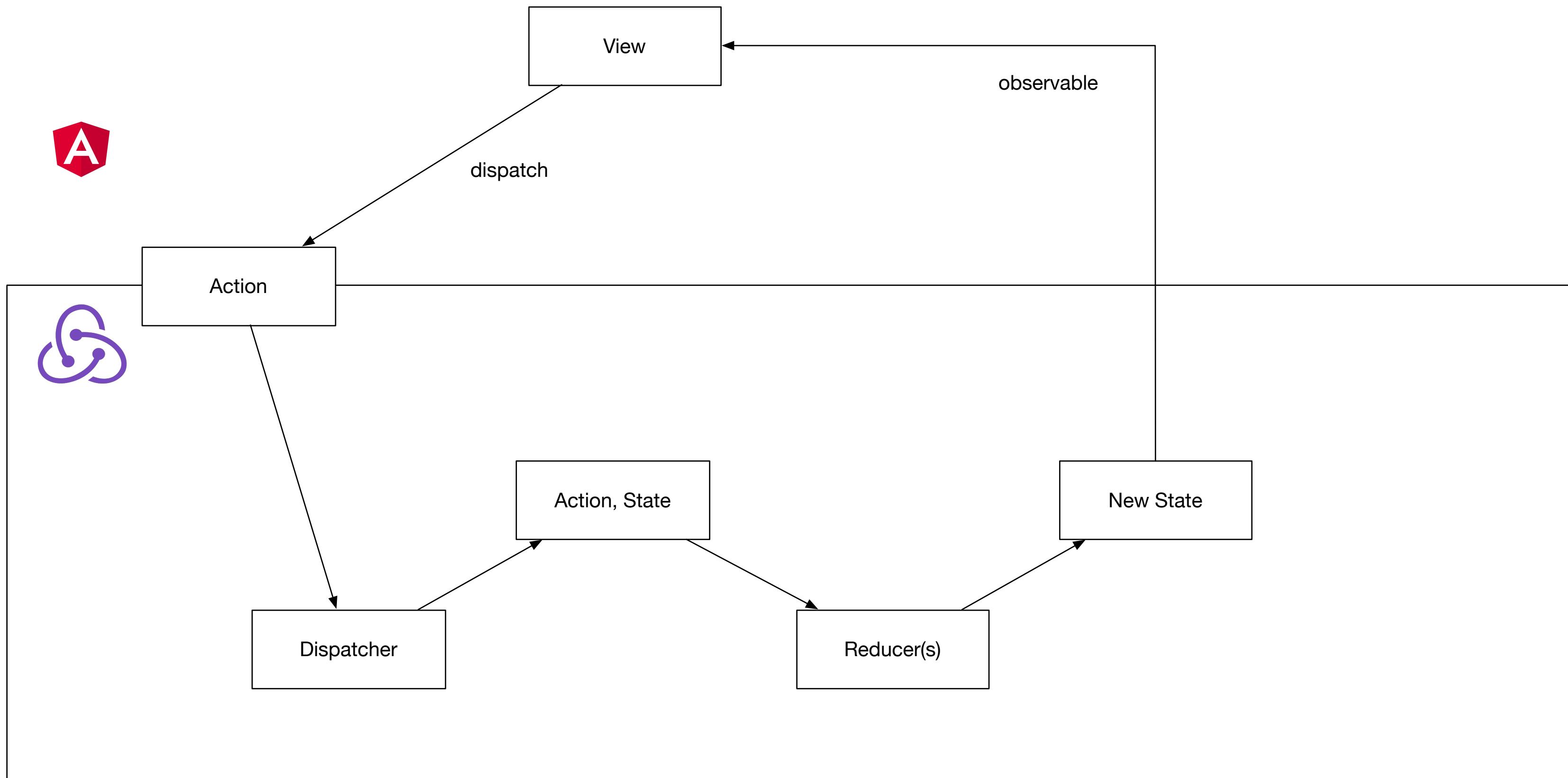


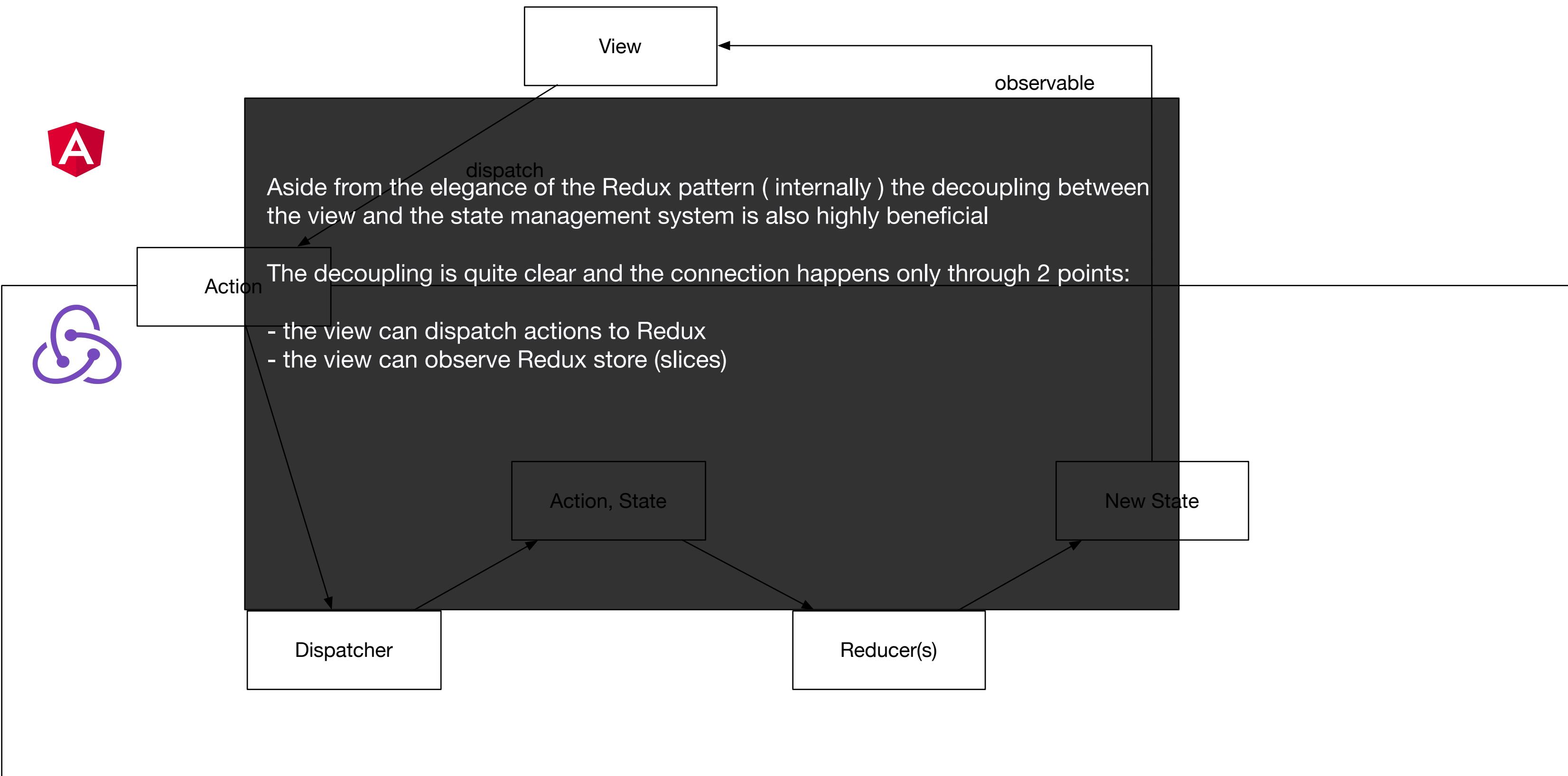


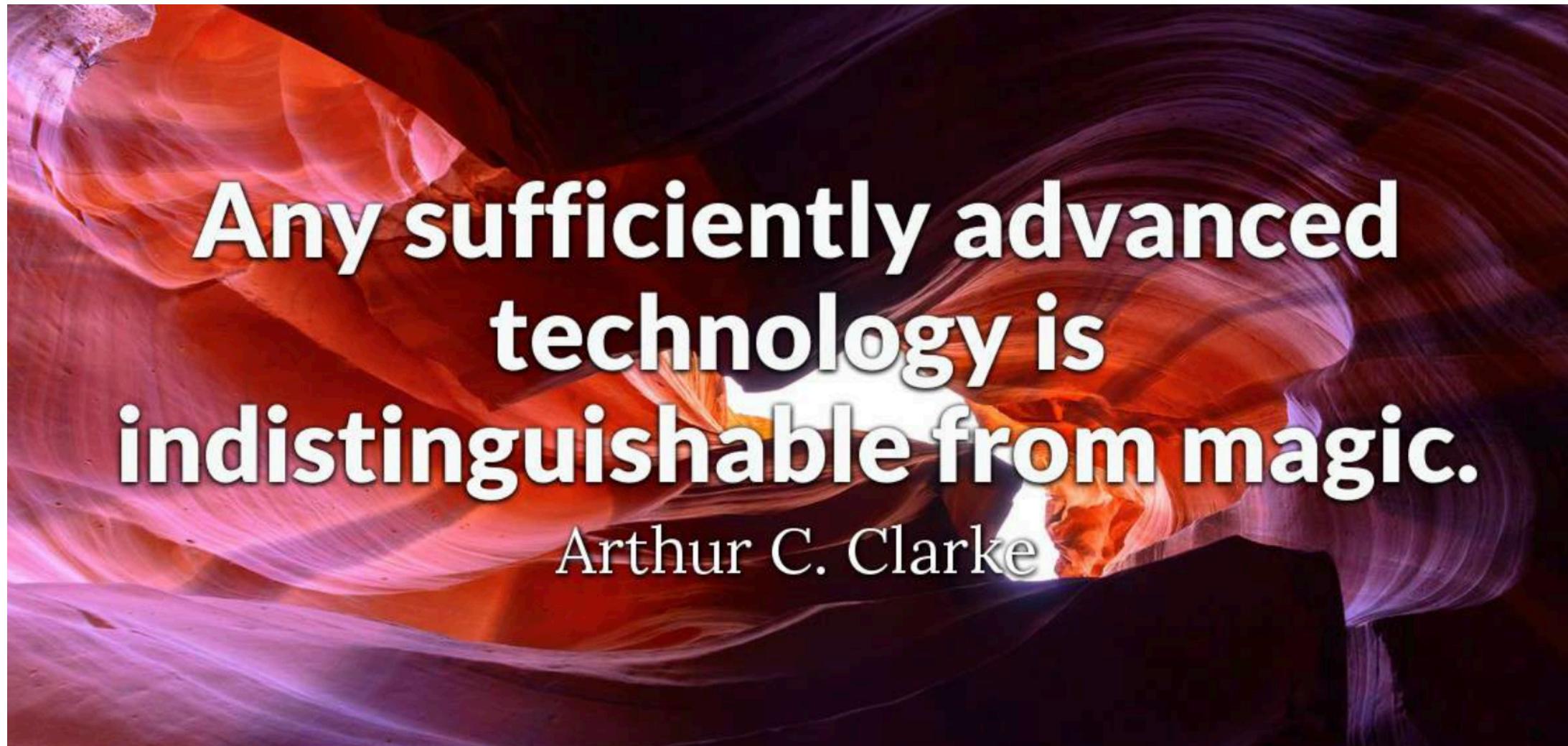






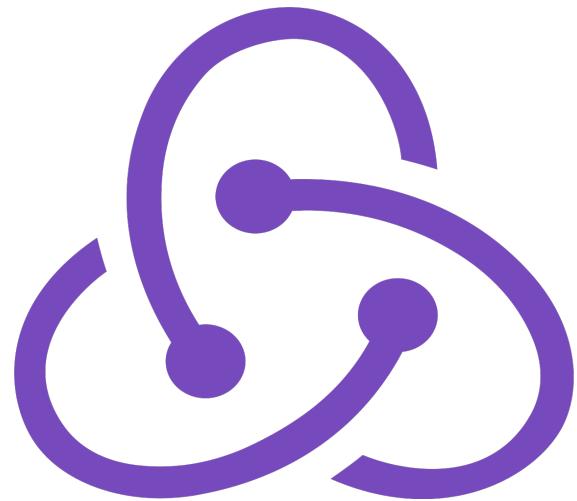






**Any sufficiently advanced
technology is
indistinguishable from magic.**

Arthur C. Clarke



Redux

Google redux three principles

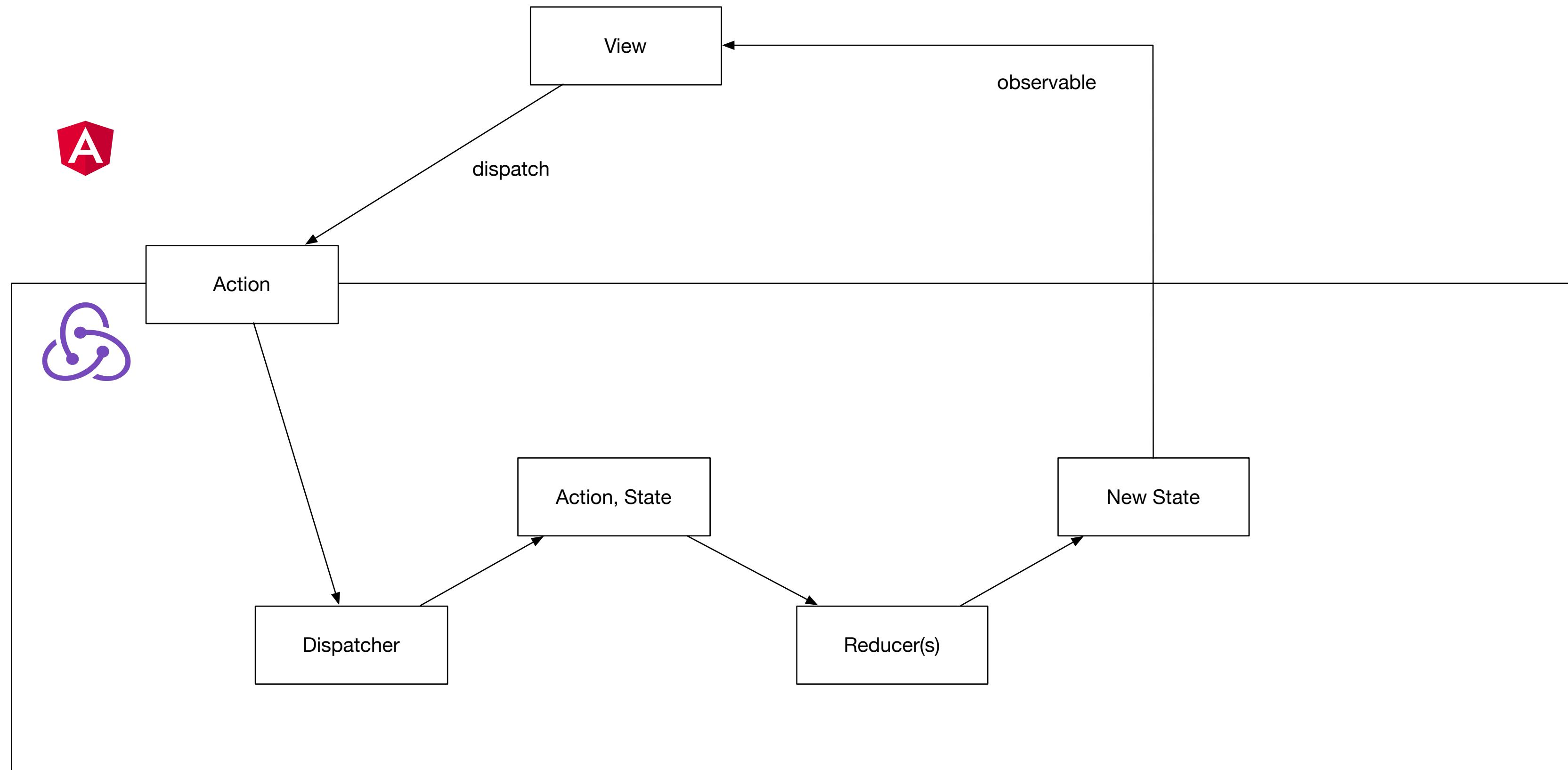
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About 590,000 results (0.37 seconds)

Redux can be described in three fundamental principles:

- Single source of truth. The state of your whole application is stored in an object tree within a single store. ...
- State is read-only. The only way to change the state is to emit an action, an object describing what happened. ...
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[redux/ThreePrinciples.md at master · reactjs/redux · GitHub](#)
<https://github.com/reactjs/redux/blob/master/docs/introduction/ThreePrinciples.md>



As a User

I want to use a Counter

So that I can increment and decrement a number

As a User

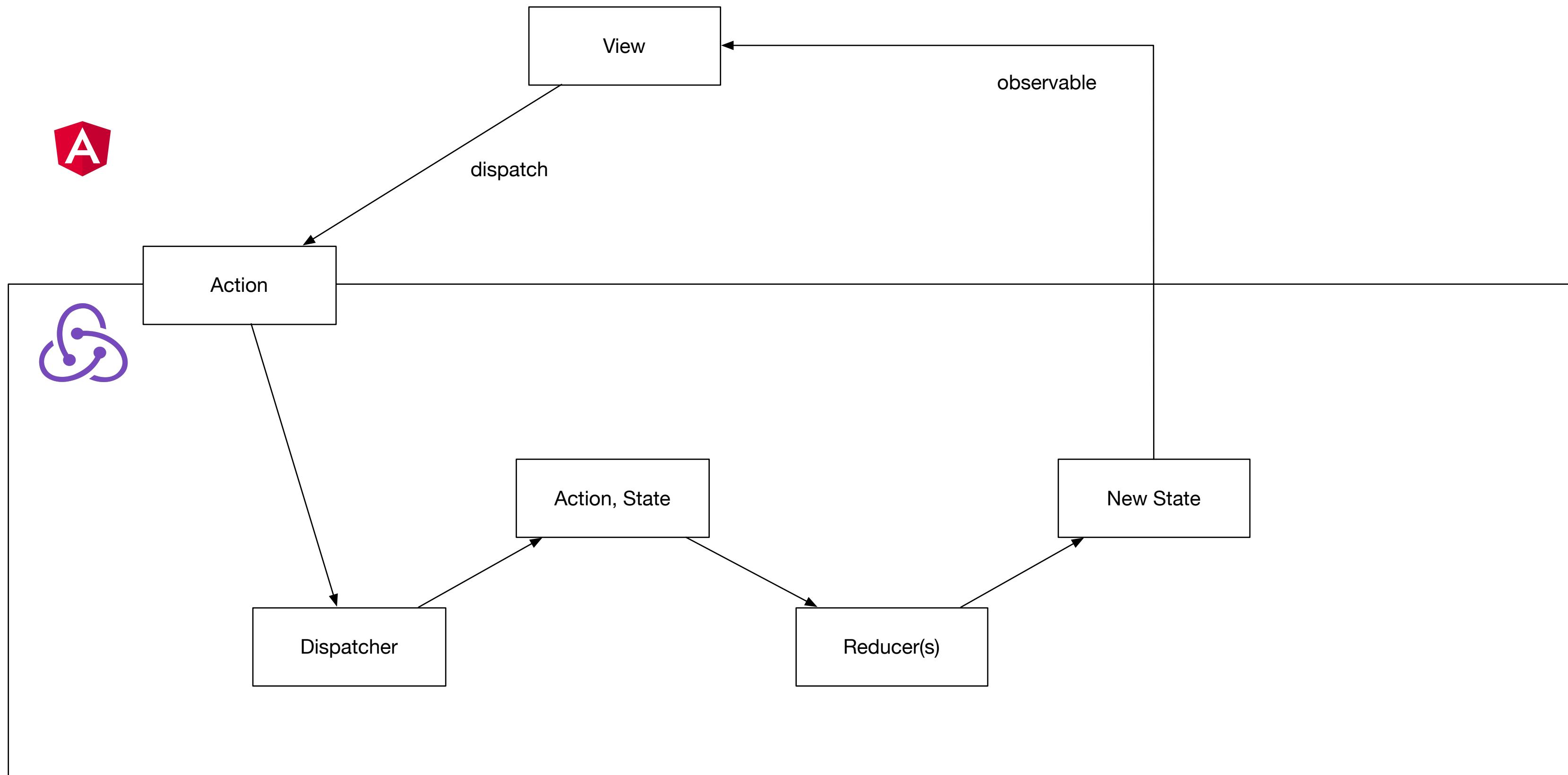
I want to use a Counter

So that I can increment and decrement a number

when the app loads first **then** the initial value should be 0

when clicking on + **then** the value should get incremented by 1

when clicking on - **then** the value should get decremented by 1



Vă Mulțumesc

Köszönöm



<https://github.com/kosz/bucharest-js-redux-talk>

Cosmin Ronnin
Frontend Architect / Agile Coach

