

# Hollywood Principle

Jun Hu

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# Don't call us, we'll call you

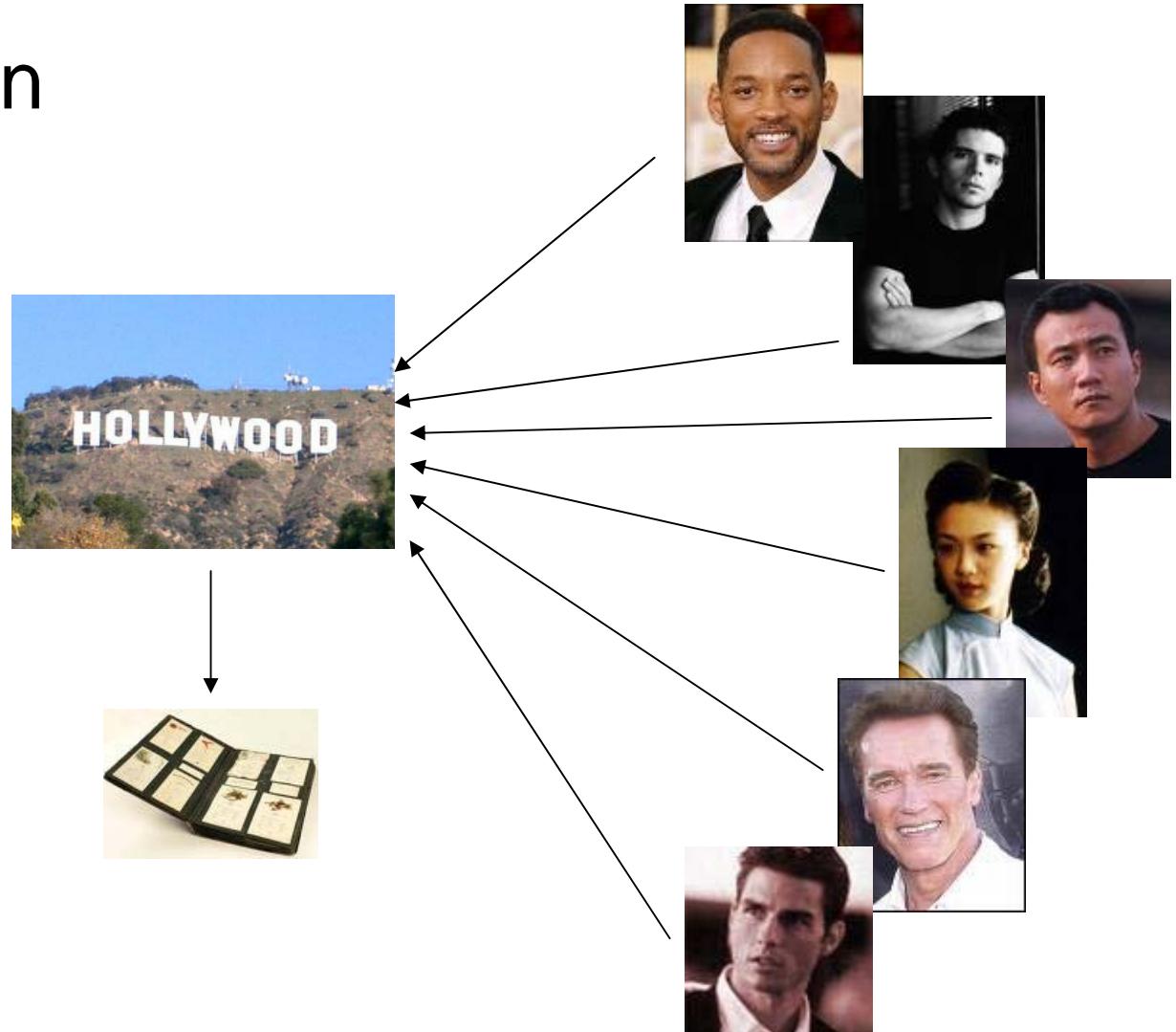


# What's the concept?

- Two step process:
  - registration and callback

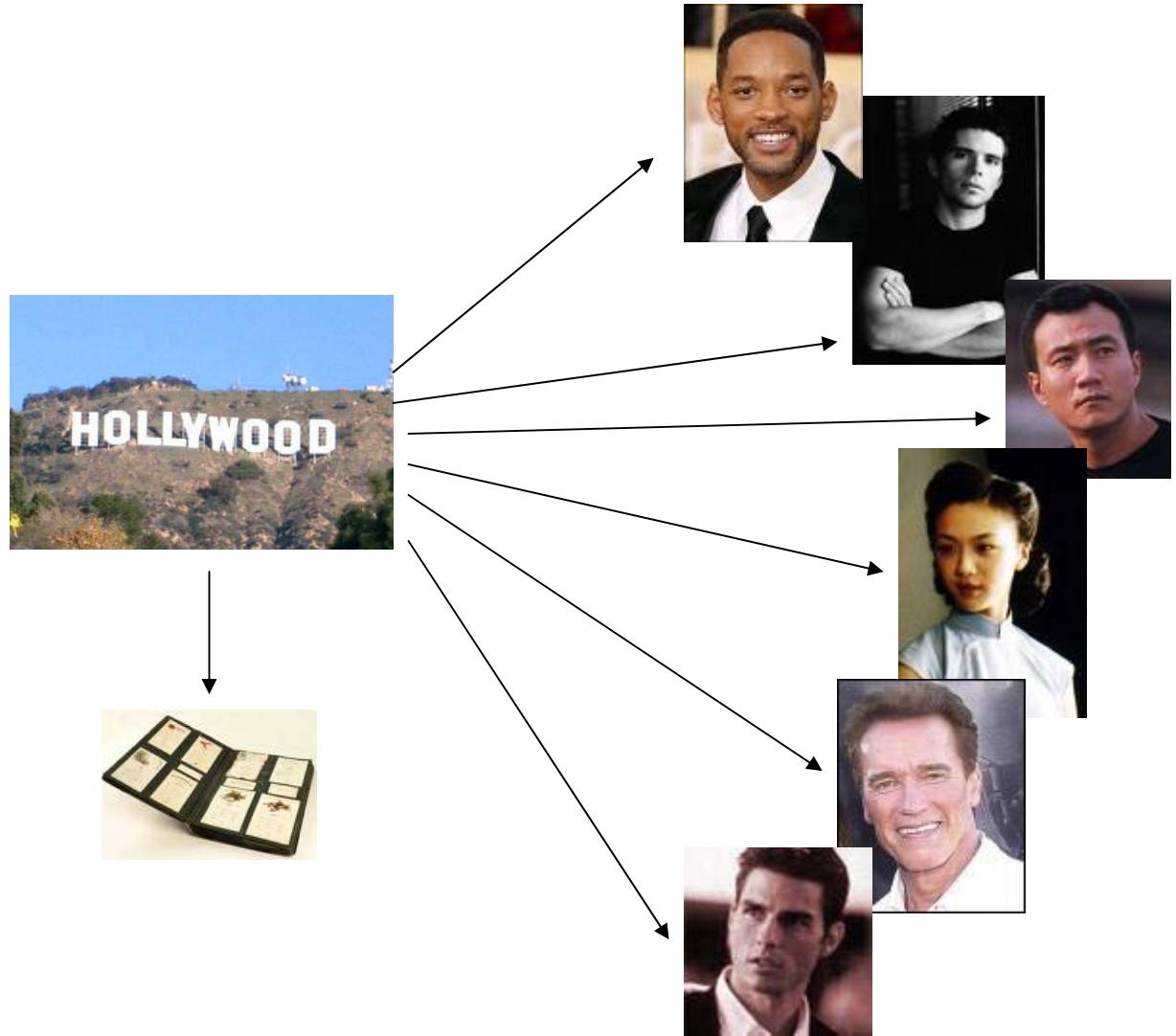
# So, what's the concept?

- Registration



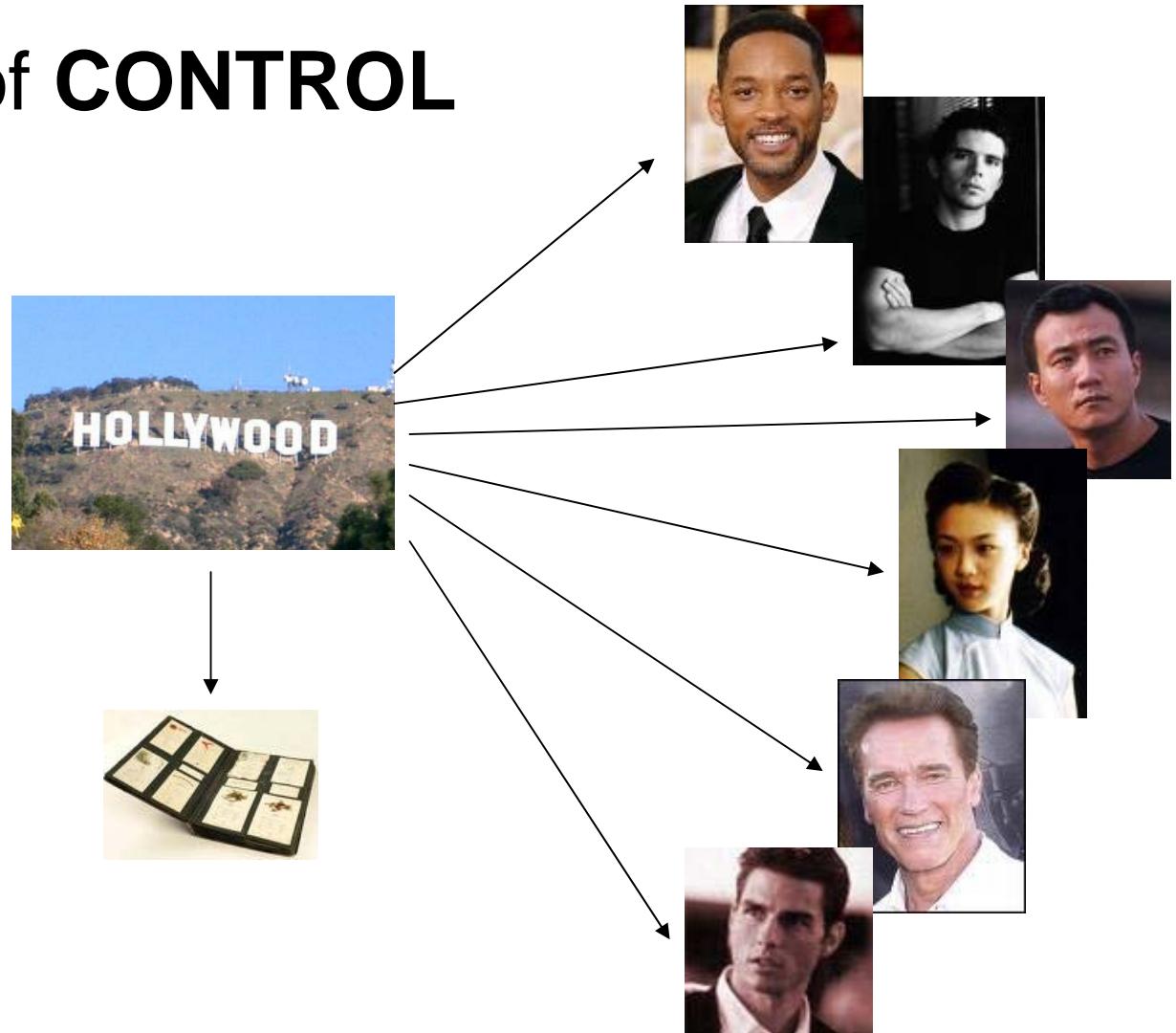
# So, what's the concept?

- Callback

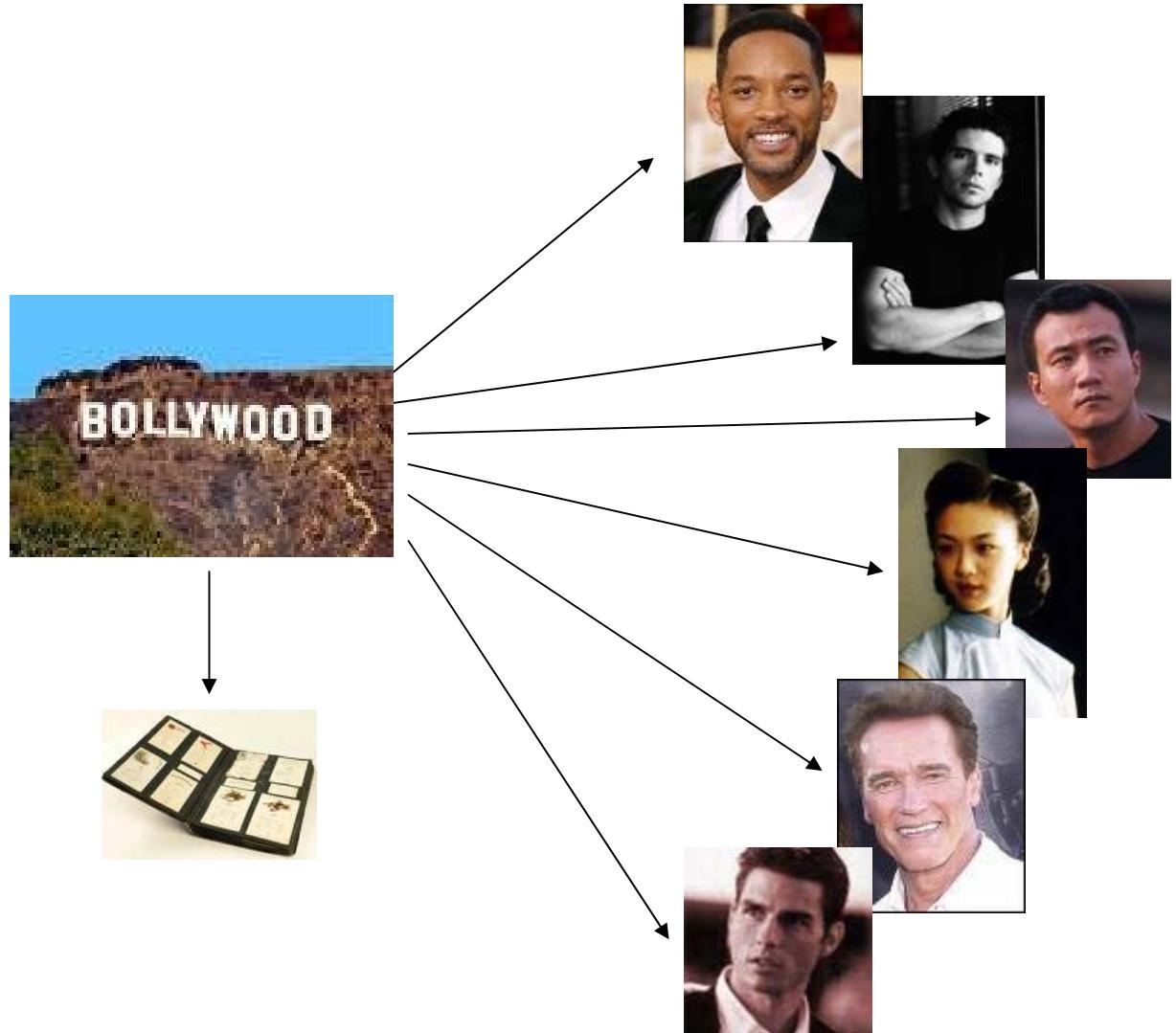


# What's the big deal?

- Inversion of **CONTROL**

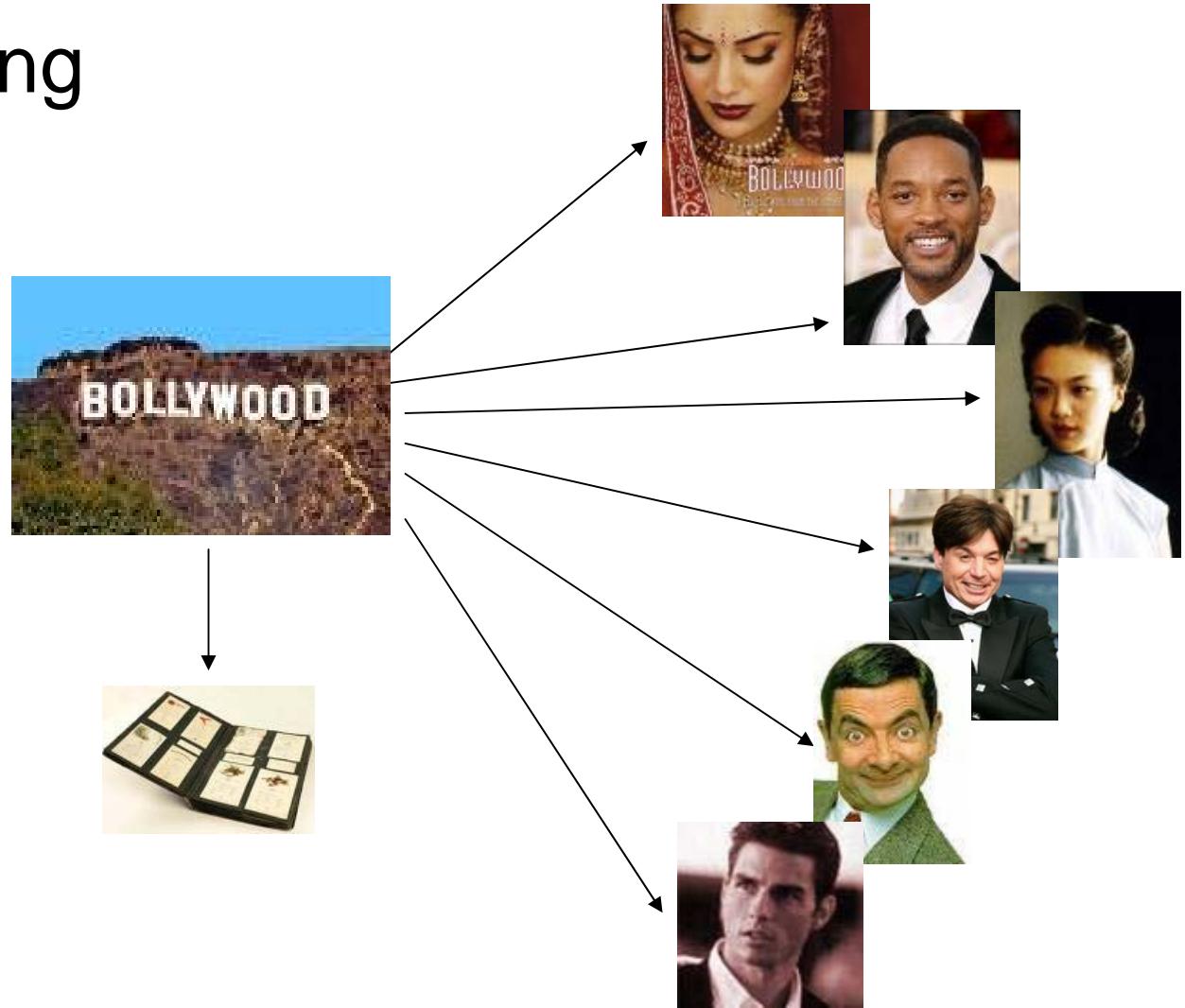


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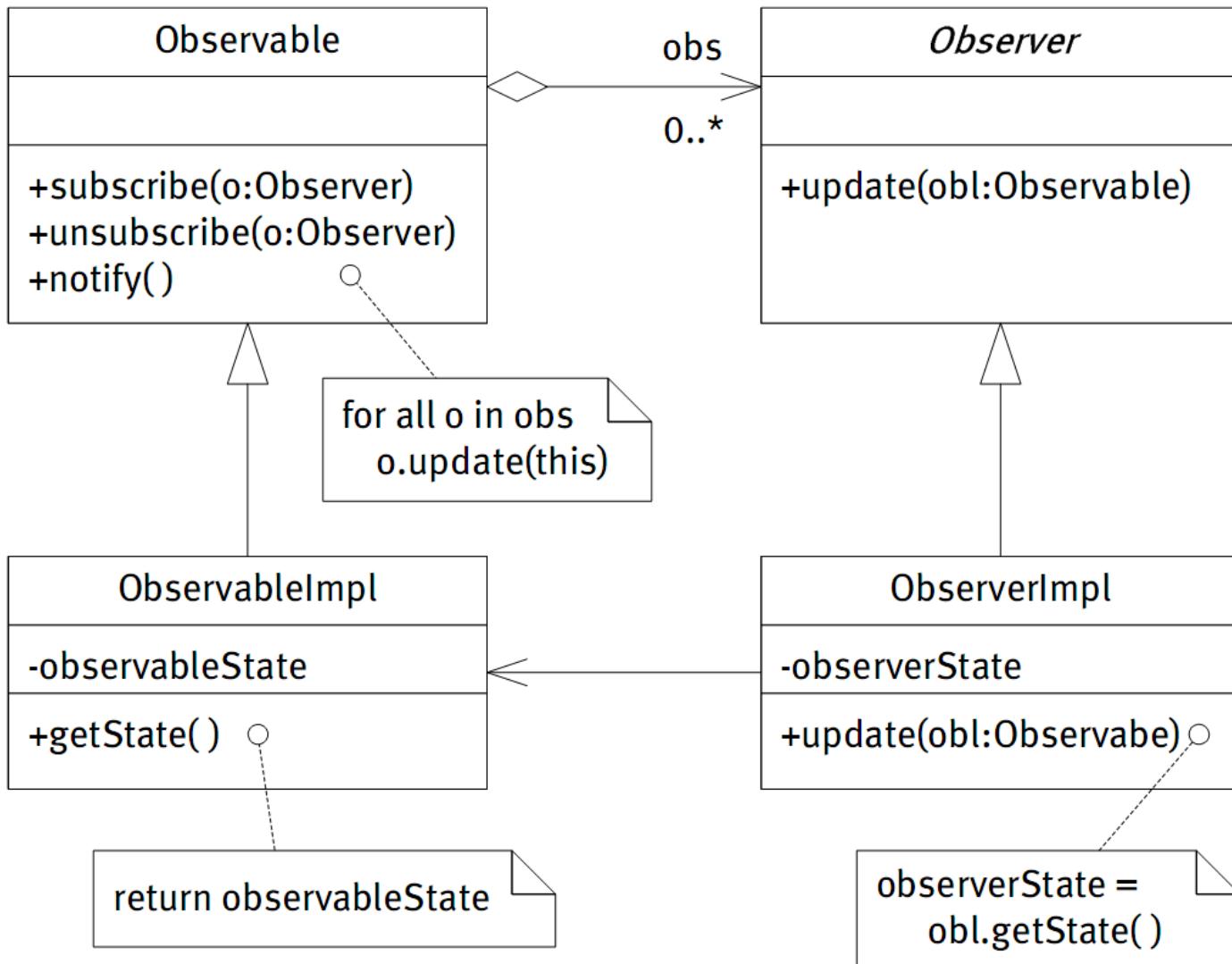
- Low coupling



# Software engineer's version

- Hollywood, Bollywood => Observable
- Actors, actresses => Observers

# Observer Pattern



# Mathematician's Version

*Observable* \_\_\_\_\_

$obs : \mathbb{P} \downarrow \text{Observer}$

*INIT* \_\_\_\_\_

$obs = \emptyset$

$\text{Subscribe} \hat{=} [ o? : \downarrow \text{Observer} ] \bullet obs := obs \cup \{o?\}$

$\text{Unsubscribe} \hat{=} [ o? : \downarrow \text{Observer} ] \bullet obs := obs \setminus \{o?\}$

$\text{Notify} \hat{=} \bigwedge o : obs \bullet o.\text{Update}(self)$

*Observer* \_\_\_\_\_

*Update* \_\_\_\_\_

$obl? : \downarrow \text{Observable}$

?

