

# Product Differentiation

## Price Wars Recap

- We saw in the Shrimp game how rough rivalry can be
- First way out: **Cooperation**
  - But this is very difficult to maintain!
  - ... and it's illegal to be too cooperative (i.e. collusive)
- Second way out: **Differentiation**
  - (Not possible in the Shrimp game)
  - Avoid this kind of competition altogether

## Differentiation Principles

- Hotelling: In a frictionless world, maybe you wouldn't want to differentiation
  - **Minimal Differentiation Principle**
- Salop: ... but this result is bunk in practice!
  - It's only true when there's only one force (being near customers)
  - Once you introduce almost *any other force*, you get...
  - **Maximal Differentiation Principle**

## Strong and Weak Forces

- For example, suppose you choose location, then compete on price
  - Strong incentives to avoid colocating near rivals
  - 'Location' isn't (necessarily) physical/geographic
- In practice, look for the forces that matter the most quantitatively
  - Price war is usually a strong force, want to avoid!!

- Geographic differentiation is usually a weak force since it's offset by agglomeration effects
  - Consumers want to go where the shops are
  - e.g. Fulton Fish Market, soda vending machines, airport car rentals, etc
  - Fashion Districts!

## Fish and Fashion



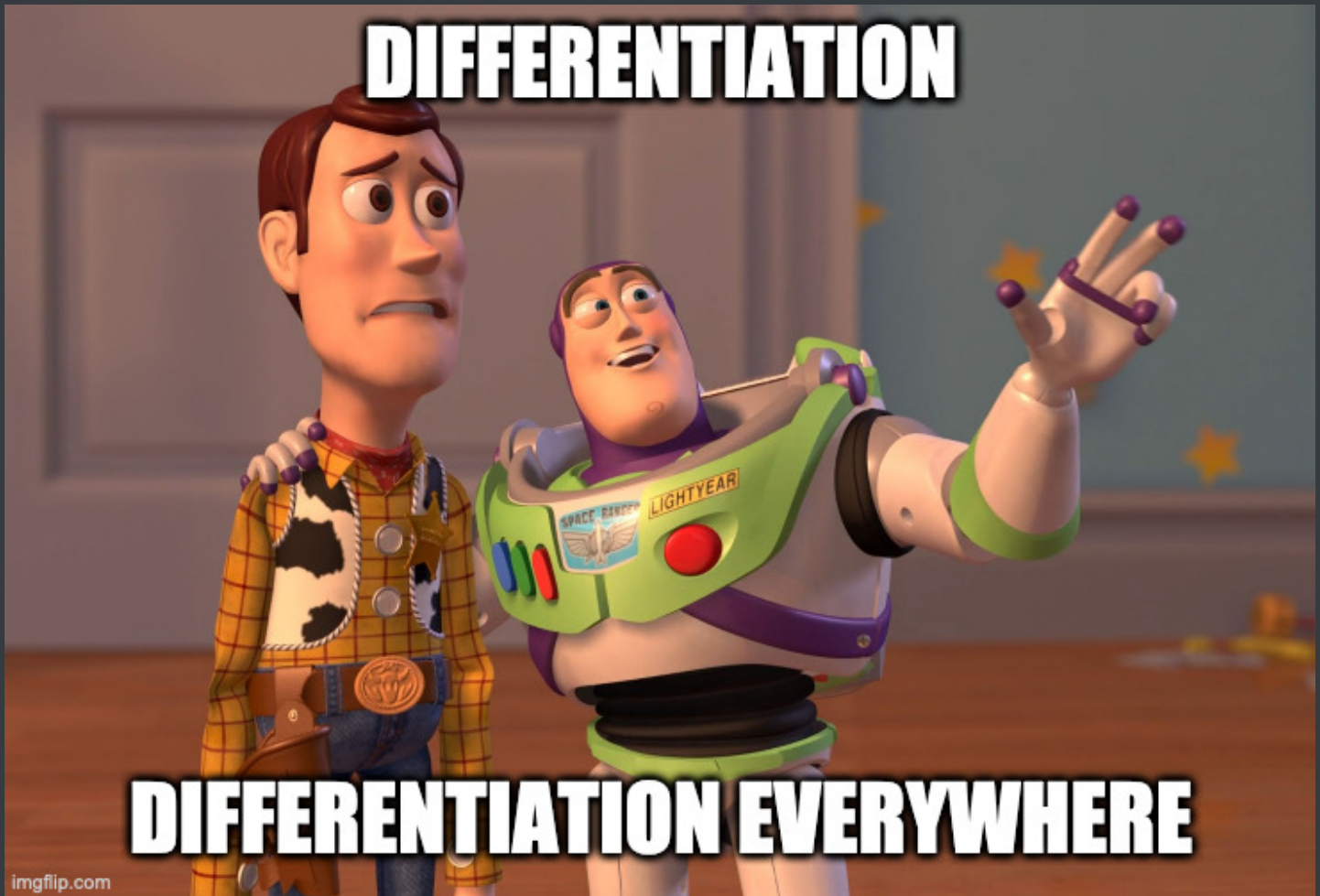




## Thinking Outside the Box

Sometimes it just takes a bit of creativity to figure out how to differentiate yourself: <https://www.tiktok.com/@planetmoney/video/6890184198590663941>

- These ideas are very general. Some examples we saw
  - Casinos and brewers offering very different products to same customers
    - So it even applies to differentiating one of your products from another!
  - Political platform polarization principles
    - When turnout is a strong force
    - Fun question to look into: Does lower turnout cause higher polarization?



- ...
  - Within narrowly-defined markets!
- Ritz-Carlton competes with other luxury hotels
  - But highly differentiated!
  - And an entire operations strategy to fit this

Ladies and Gentlemen serving Ladies and Gentlemen

## Strategic Takeaways

- Differentiation is relative, so it's intrinsically dependent on what your competitors are doing
- How much should Ritz-Carlton care about process failures?
  - How much do they happen elsewhere?

- What is the customer expecting?
- How valuable would it be to correct these problems?

## Next Week: Reasoning Through What They Will Do

Deterrence is the art of producing in the mind of the enemy the fear to attack