

# Class 9:

## If You Build it, Will They Come?

Pitch: submit teams of 2-3 by tomorrow night

See Google doc for others without teams

Assignment 3 is due Saturday at 11:59pm

Pitch deck due: Wednesday, May 9

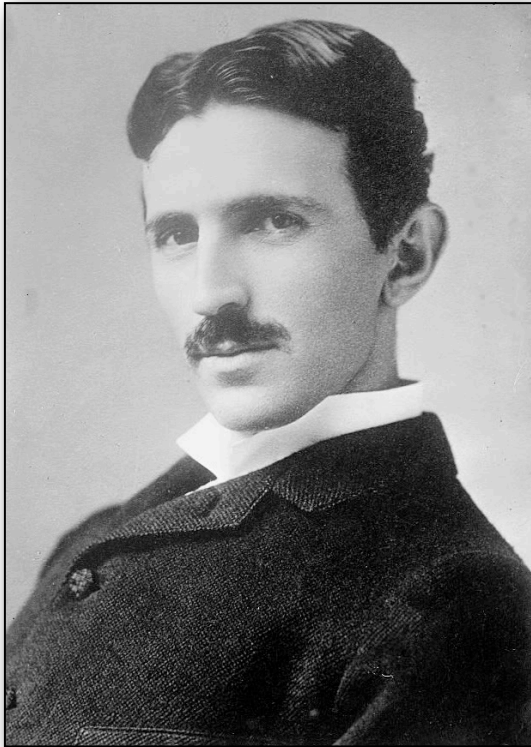
# outline

1. definition of distribution
2. math of distribution
3. strangeness of distribution
4. methods of distribution
5. a note on PR and media
6. ending thoughts

“Getting a product to a consumer”

“Spreading a message”

## failure vs. success



## distribution is critical



The better product doesn't always win

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## distribution math

*CLV = customer lifetime value*

*ARPU = avg.rev.per user (per month)*

*r = monthly retention rate*

$$\text{avg lifetime} = \frac{1}{1 - r}$$

$$CLV = (ARPU) * (\text{gross margin}) * (\text{avg lifetime})$$

$$CLV = (ARPU) * (\text{gross margin}) * \left( \frac{1}{1 - r} \right)$$

*CPA = cost per acquisition*

$$CLV > CPA?$$



## distribution - example

$$ARPU = \$40/month$$

$$avg\ lifetime = 24\ months$$

$$lifetime\ revenue = \$960$$

$$40\%\ gross\ margin$$

$$CLV = \$384$$

$$CPA_{MAX} = \$384$$

# marketing spectrum



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## the great exaggeration

*“The product was so good, it sold itself”*

## advertising is big

610 thousand people

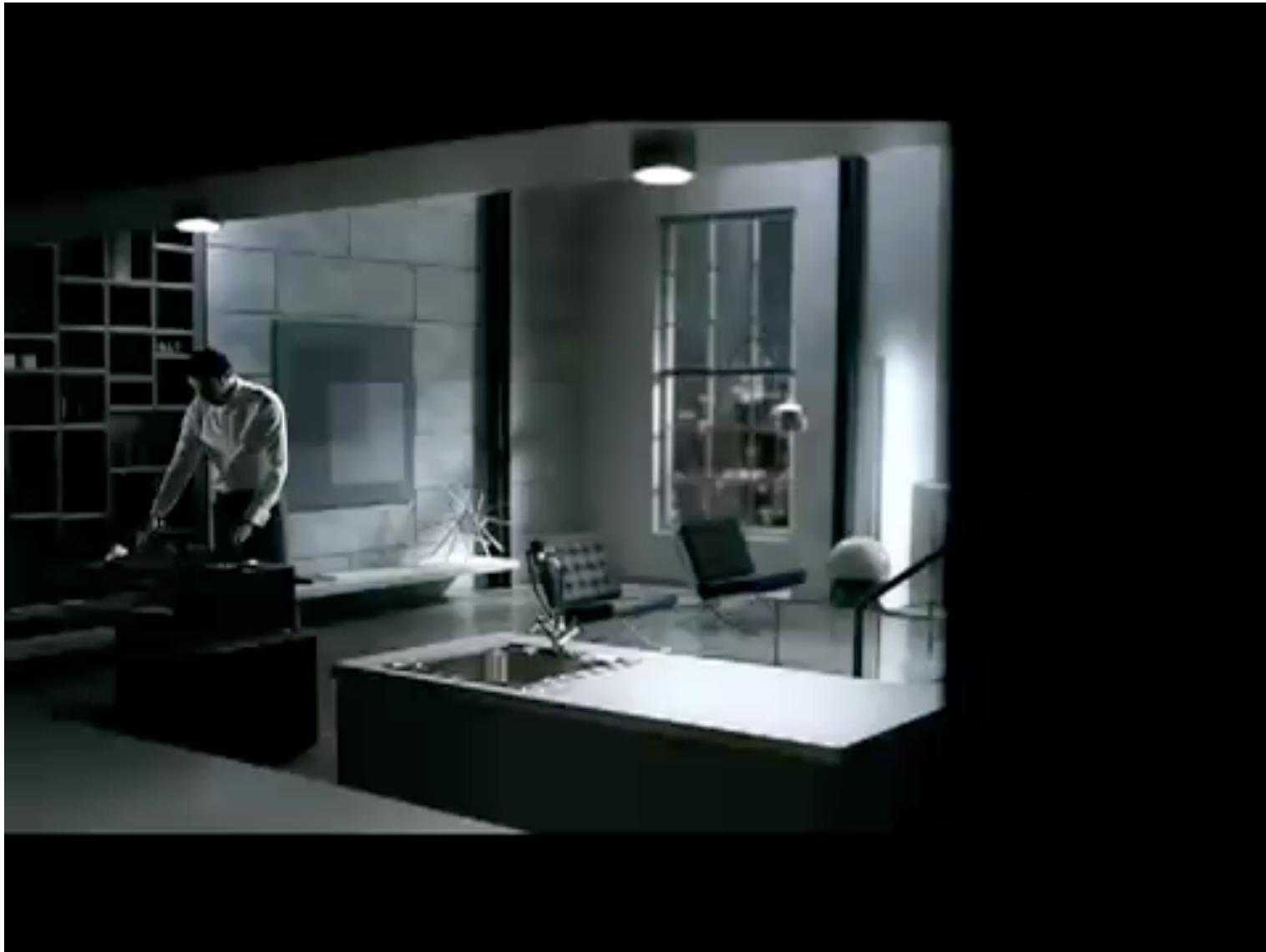
\$95 billion

0.6% GDP

## advertising works



## advertising isn't rational



## even computer buyers fall prey



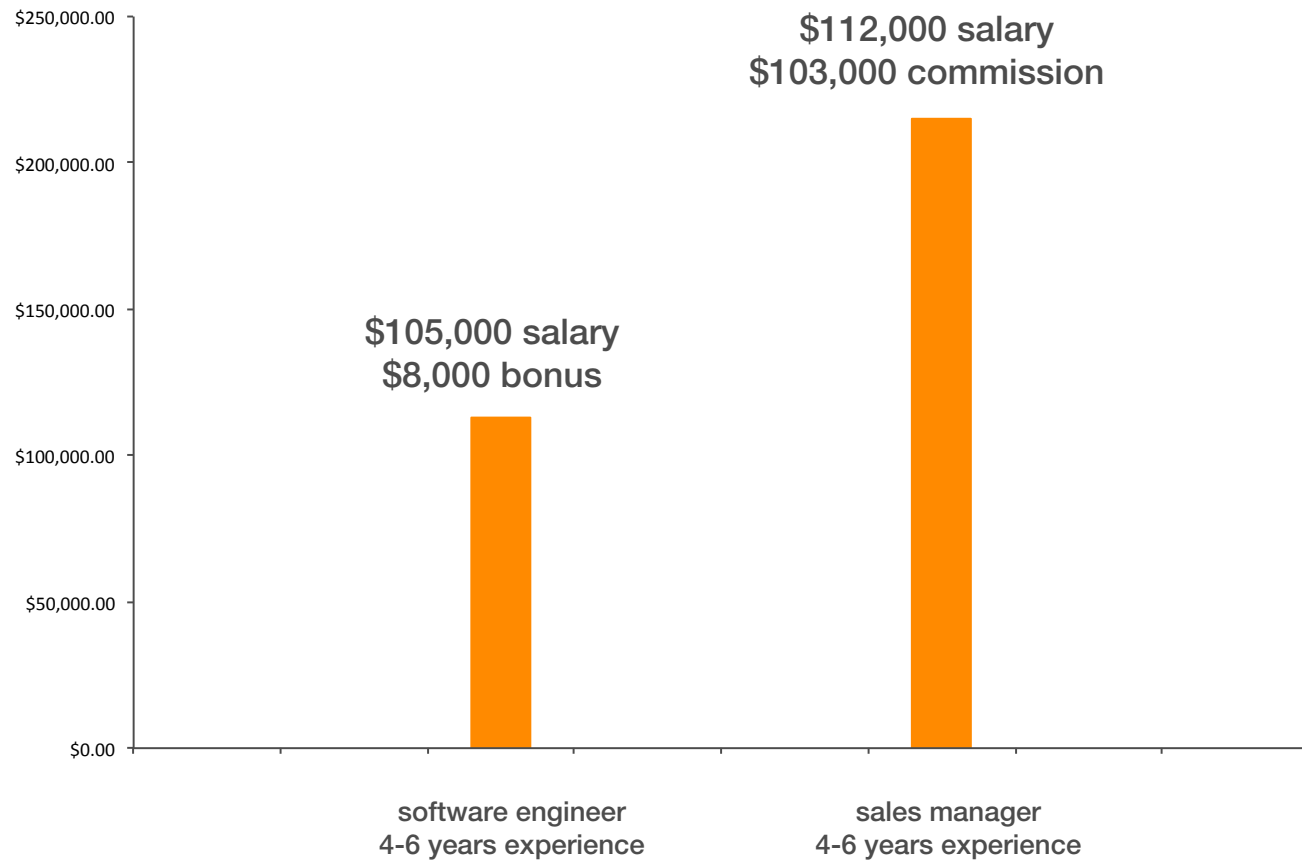


sales is big

3.2 million people  
\$450 billion  
3% GDP

# companies pay for it

## salaries, Oracle



## even engineering-driven ones

### salaries, Google



## salesmen



## really just actors?



a part of our culture



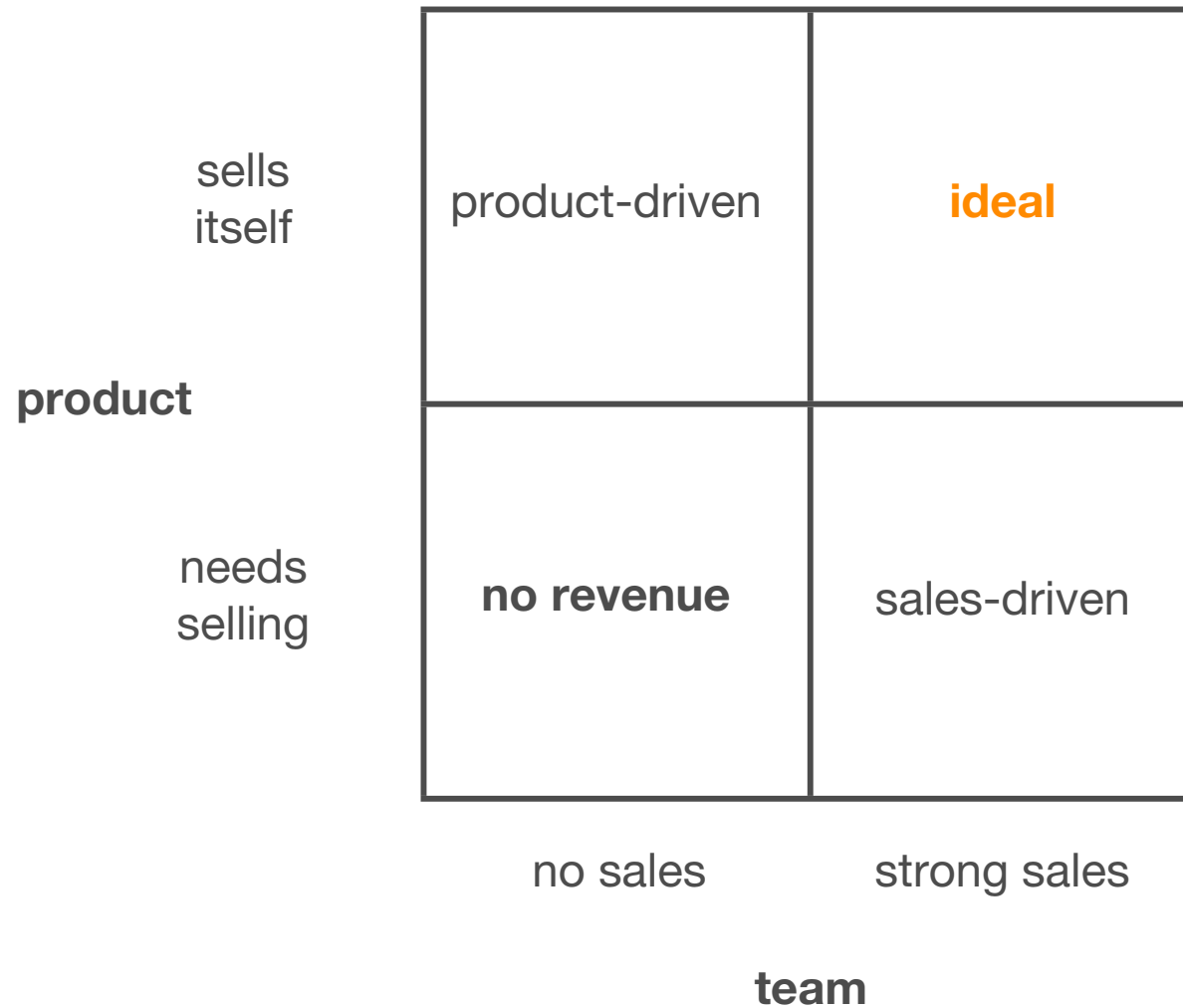


## seeing sales

will the real salesperson please stand up?



# organizing principles

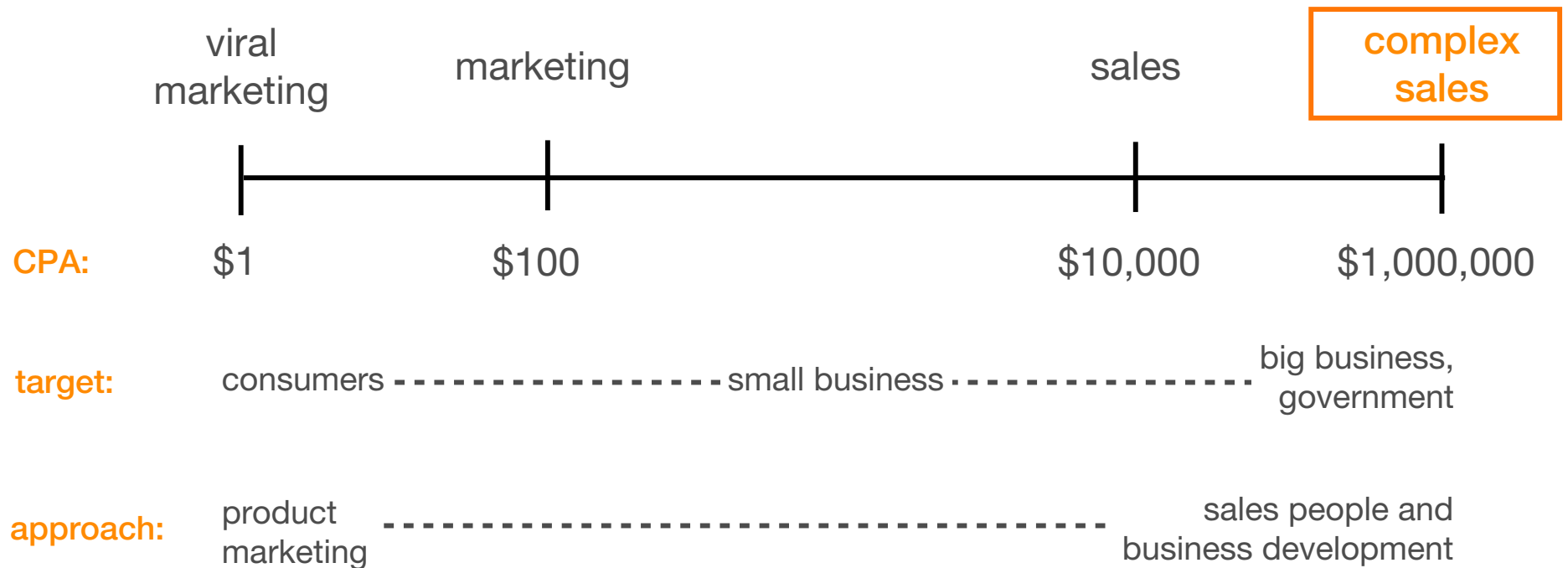




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# complex sales



## example - SpaceX



## example - SpaceX





government sales

forward deployed engineers

globetrotting CEO

## example - Knewton

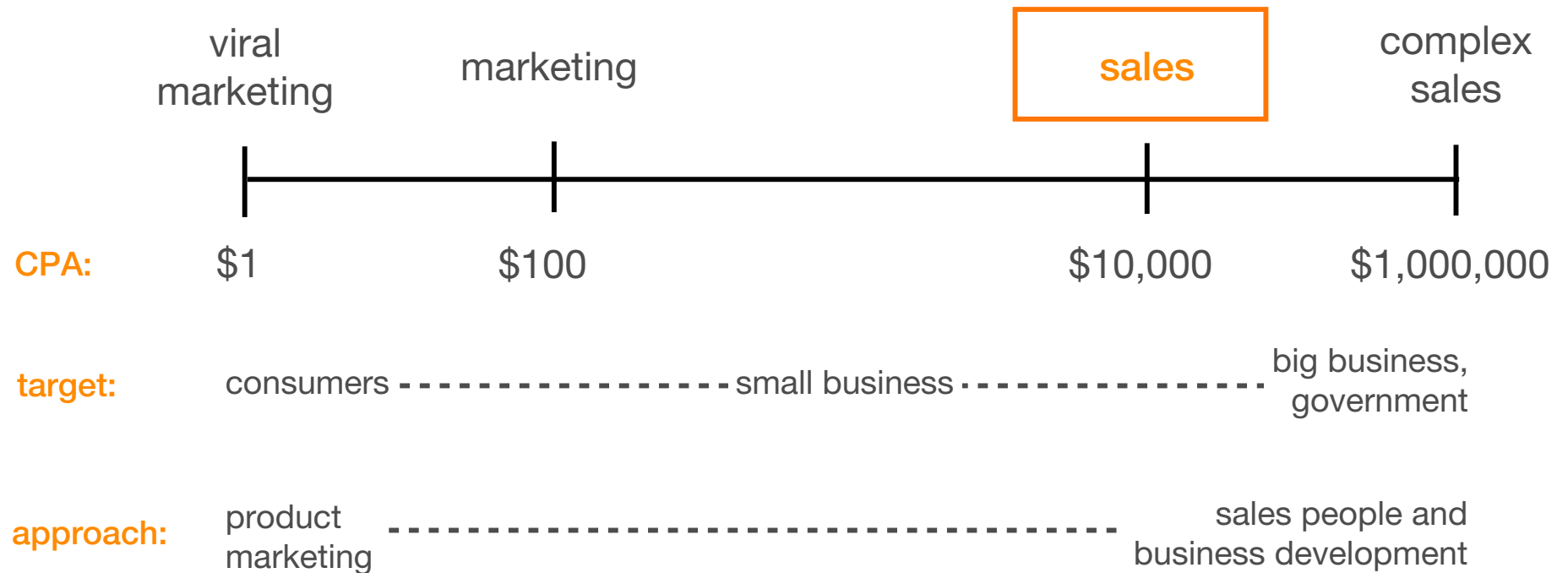


selling to big education

Pearson partnership

content providers, schools

# sales



## example - yammer



enterprise-facing sales process

large sales team

“used by over 200k companies”



## example - ZocDoc

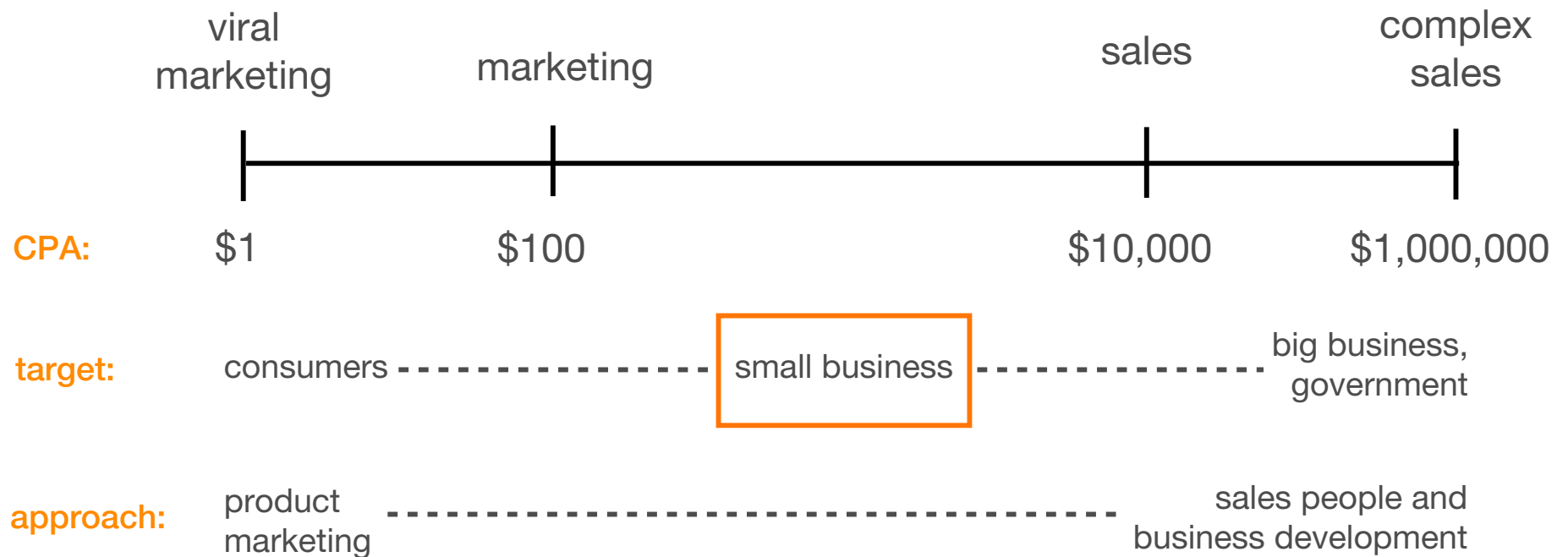


sales team drives growth

market-by-market launches

internal team of recruiters

# the gap



## example - Yelp

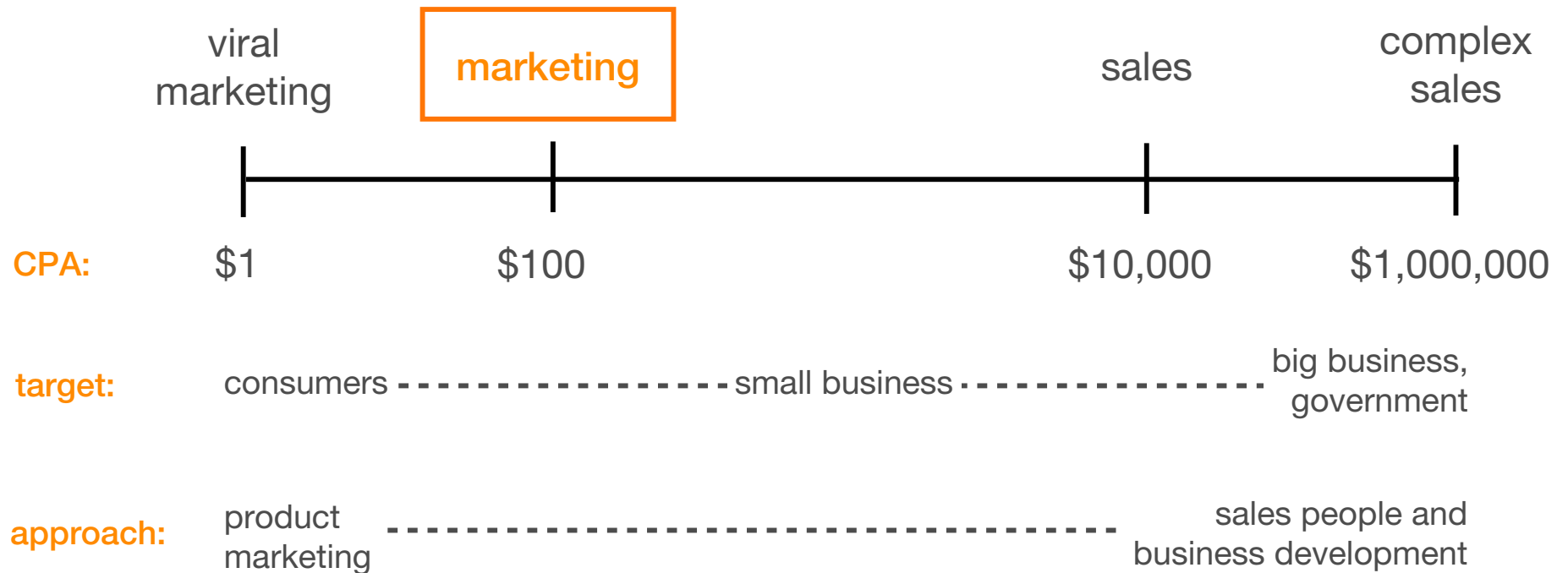
directly market to users (businesses)

sales teams in all major markets

aggressive sales tactics



# marketing



## the golden years





*“Half the money I spend on advertising is wasted;  
the trouble is that I don’t know which half”*

- John Wanamaker



## example - Priceline



## Google's power

*CPM = cost per 1,000 views*

*CTR = click through rate*

*CPC = cost per click (conversion)*

$$CPC = \frac{CPM}{CTR * 1,000}$$

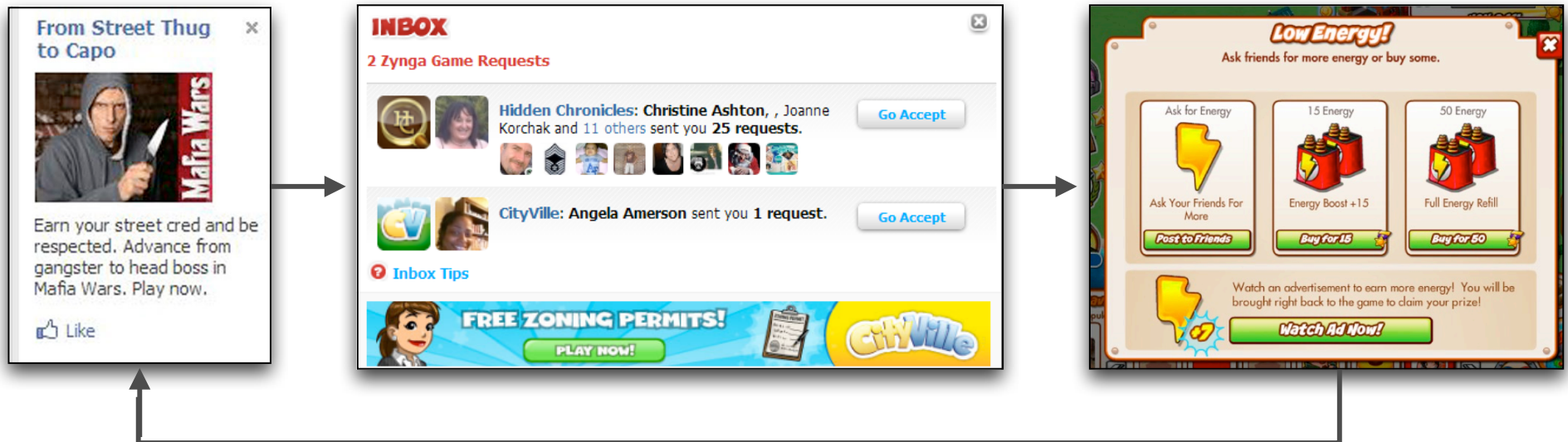
*RPC = revenue per click (conversion)*

*ROI = return on investment*

$$ROI = \frac{RPC - CPC}{CPC}$$

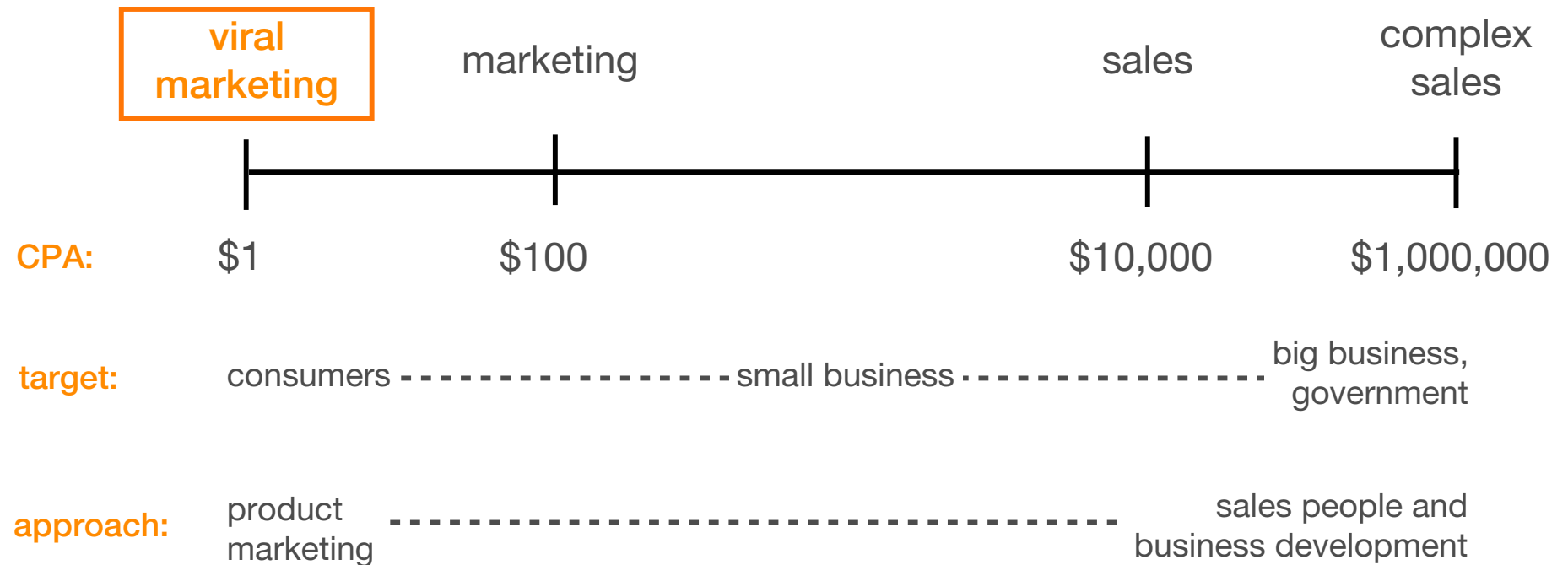


## example - Zynga

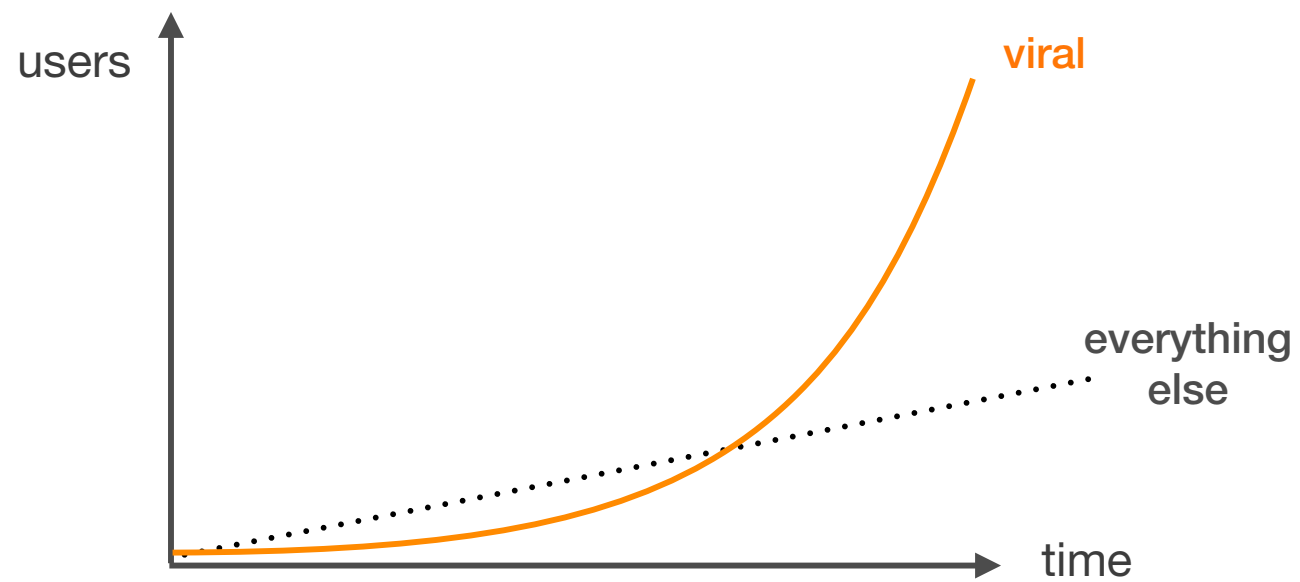


acquisition, viral growth, and monetization loop

# viral marketing



# virality



## going critical

$U_0$  = initial number of users

$T_c$  = viral cycle time

$i$  = avg. number of invites sent

$s$  = invite conversion rate (%)

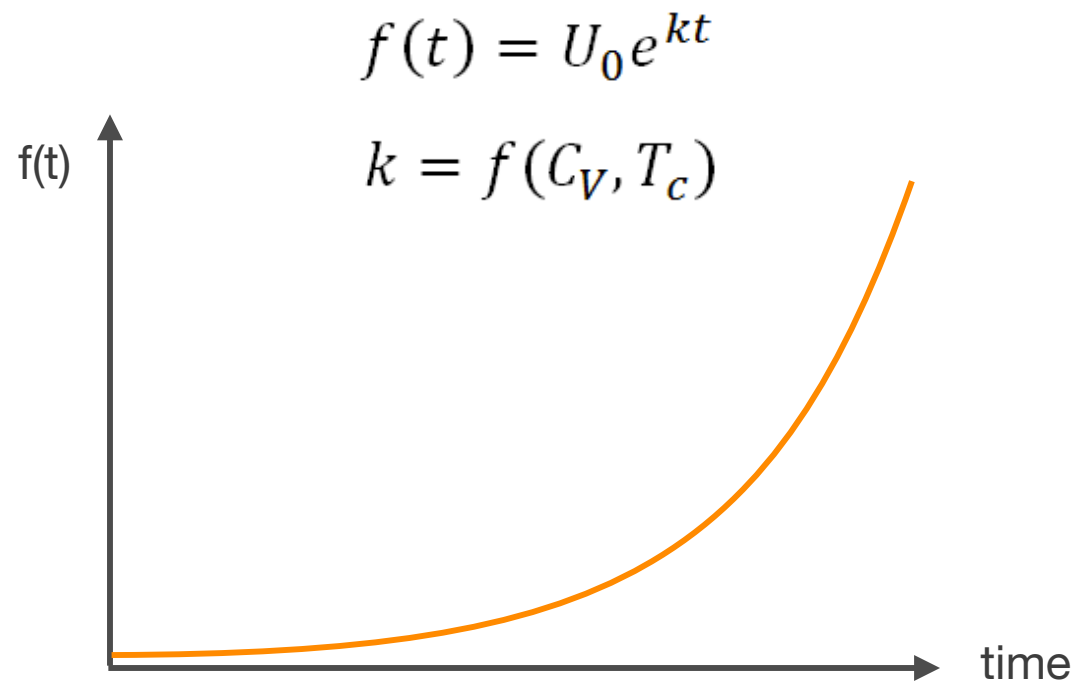
$C_V$  = viral coefficient

$$C_V = i * s$$

for viral growth:

$$C_V > 1.0$$

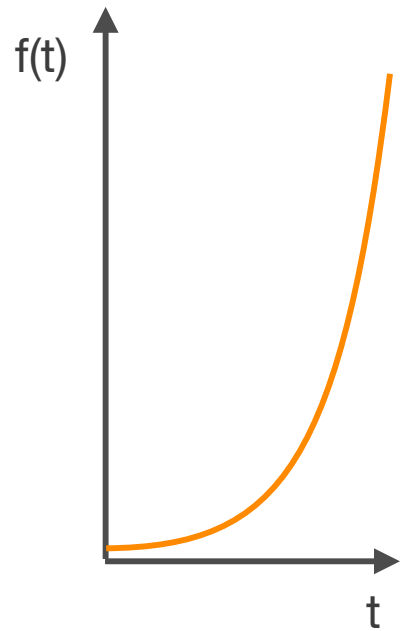
## exponential growth



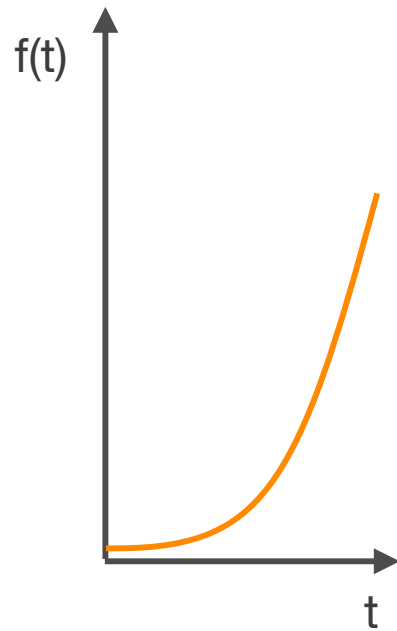
for viral growth:

$$k > 0$$

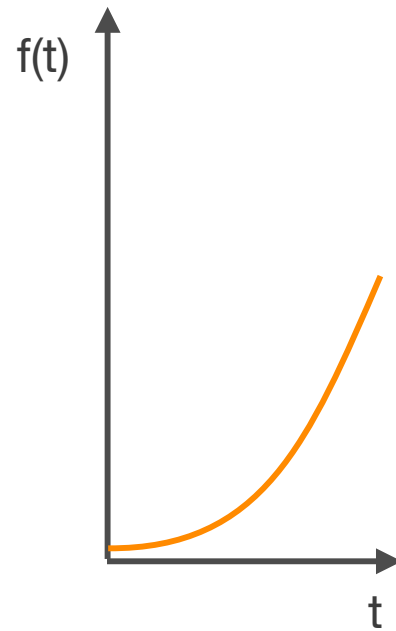
## segment by segment



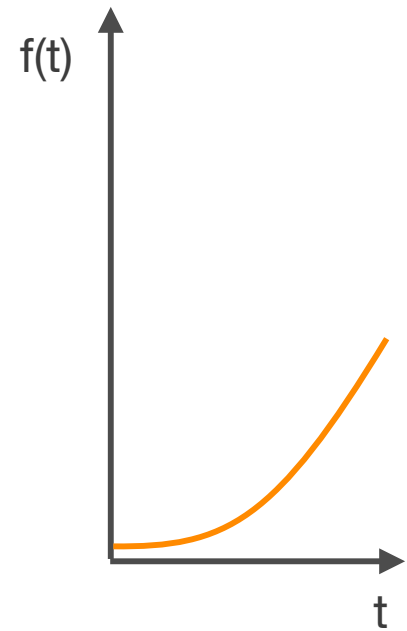
segment 1



segment 2

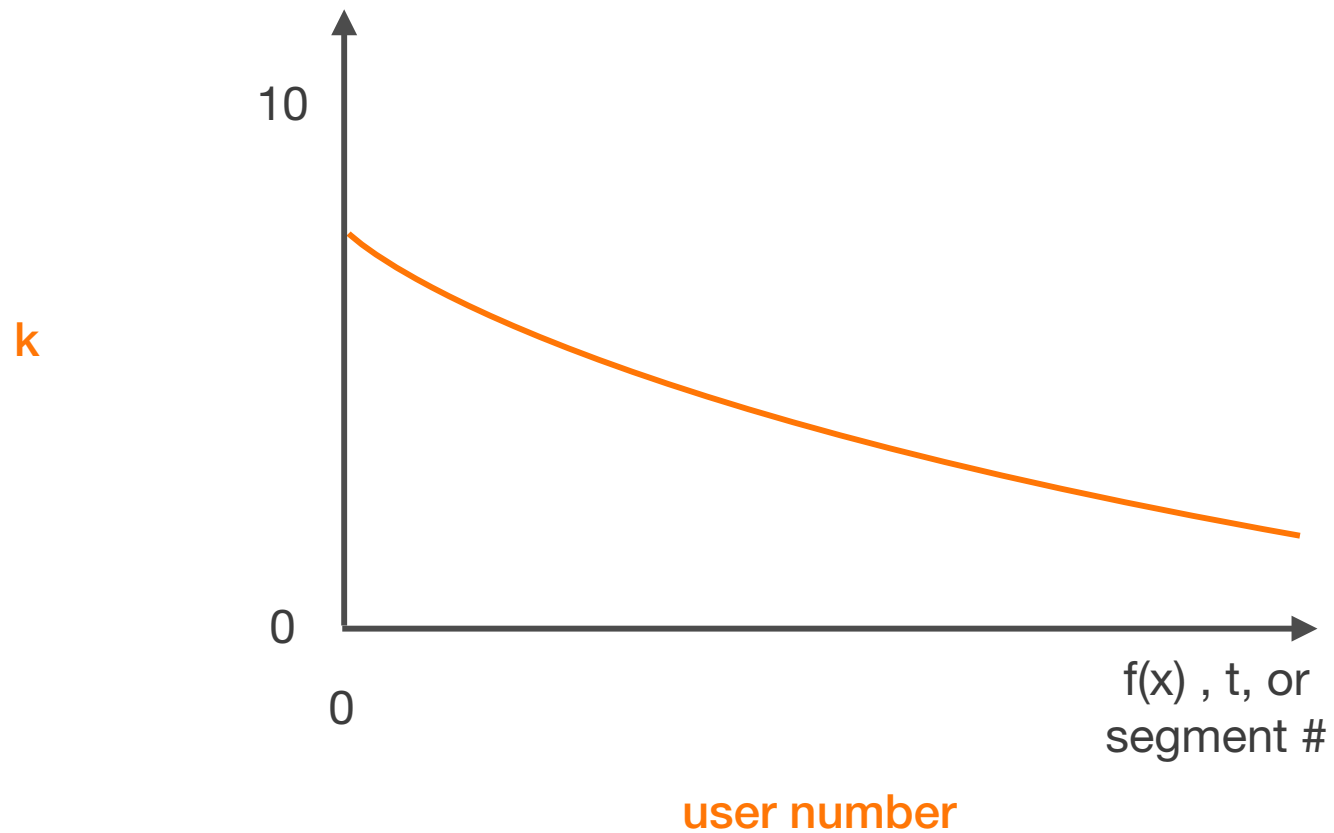


segment 3



segment 4

## k tends to decline

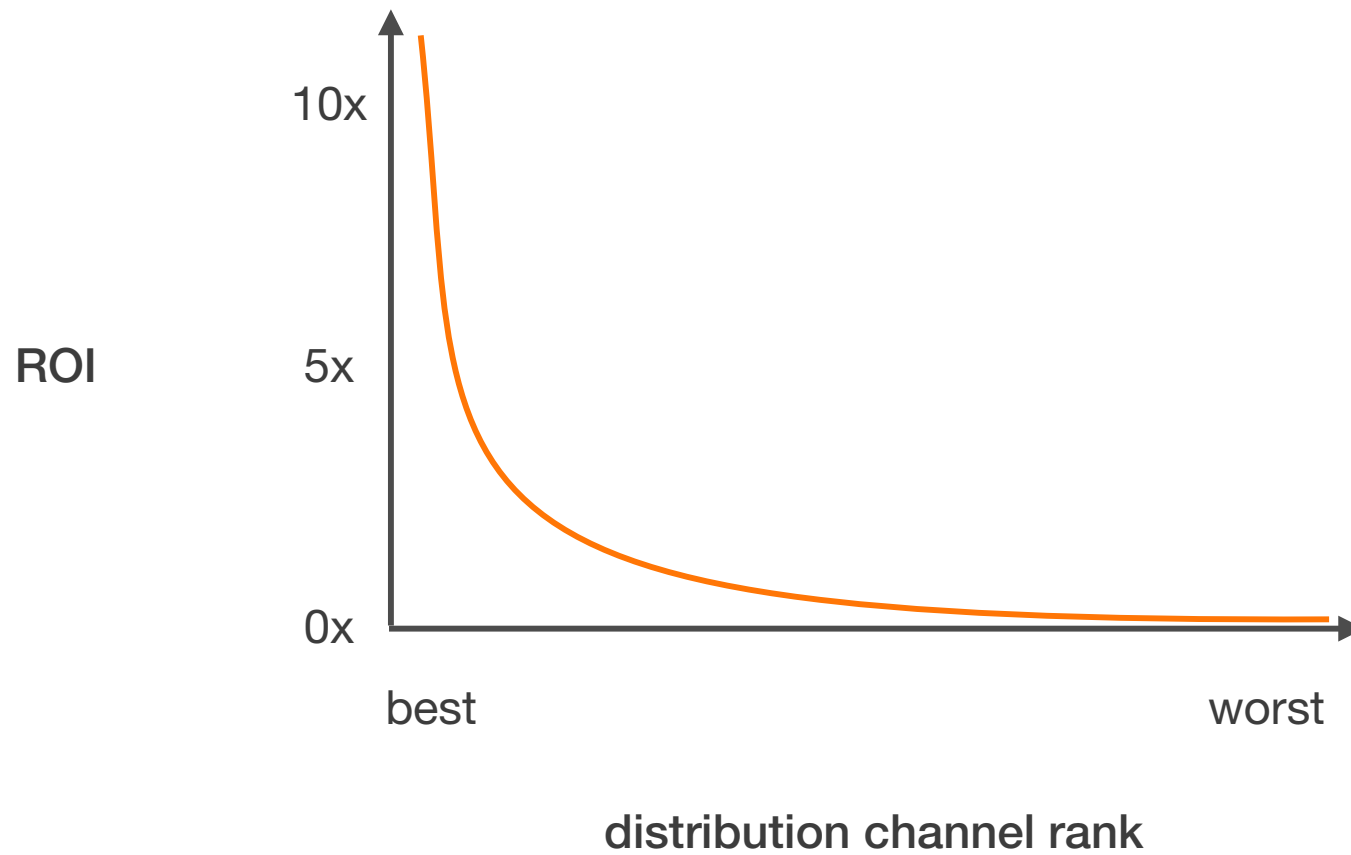


## examples





## power laws apply



pick one



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## PR and media audiences

customers

business partners

investors

employees

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## Can we do without Ship B?

“Security guards, public relations executives, management consultants - we’re going to colonize another planet.”



## how big is distribution?

