Social Networks
Introduction
Professor Jonah Berger
Social Networks

- People are 36% more likely to quit smoking if a friend quits
Social Networks

- People are 36% more likely to quit smoking if a friend quits
- 29% more likely to quit if a friend-of-a-friend quits
Social Networks

- People are 36% more likely to quit smoking if a friend quits
- 29% more likely to quit if a friend-of-a-friend quits
- 11% more likely to quit if a friend-of-a-friend-of-a-friend quits
Social Networks

• People were 57% more likely to become obese if a friend became obese
Social Networks

• People were 57% more likely to become obese if a friend became obese
• 20% more likely if a friend-of-a-friend is obese
Social Networks

- People were 57% more likely to become obese if a friend became obese
- 20% more likely if a friend-of-a-friend is obese
- 10% more likely if a friend-of-friend-of-a-friend is obese
In This Session

• What are networks?
In This Session

• What are networks?
• How networks shape the spread of information and influence
In This Session

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• How networks shape the spread of information and influence
• Whom to target in marketing campaigns
In This Session

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• How networks shape the spread of information and influence
• Whom to target in marketing campaigns
• Strong vs. weak ties
Network Effects

- Value of something depends on the number of other people using it
Network Effects

• Value of something depends on the number of other people using it
• Fax machine-
  • The value of the fax machine increases with the number of others that are doing something
Network Effects

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  - The value of the fax machine increases with the number of others that are doing something
- Ebay
  - Buyers and sellers are network together
Network Effects

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  - The value of the fax machine increases with the number of others that are doing something
- Ebay
  - Buyers and sellers are network together
- Do Network Effects help or hurt diffusion?
  - Slow at the beginning, but will help later
Pattern of Social Ties

Degrees of separation from Kevin Bacon
Pattern of Social Ties

Degrees of separation from Kevin Bacon
• Distance - International actors
Pattern of Social Ties

Degrees of separation from Kevin Bacon

- Distance - International actors
- Industry - Mainly a singer over film actor
Pattern of Social Ties

Degrees of separation from Kevin Bacon

• Distance - International actors
• Industry - Mainly a singer over film actor
• Time - Someone who acted in the past
Social Networks

- Networks characteristics
  - Popularity, or the number of ties
Social Networks

- Networks characteristics
  - Popularity, or the number of ties
  - Position
Social Networks

• Which of your friends do you think have the most social ties?
Social Networks

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• How dense, or interconnected is your network?
Social Networks

- Which of your friends do you think have the most social ties?
- How dense, or interconnected is your network?
- Are there certain pockets with high interconnection within, but low connection with other parts of the network?
Item Characteristics

• If a particular idea is more contagious, then it will be more likely to spread throughout a group or social network.
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• Network structure matters as well If there’s no link between two people, it’s impossible for information to spread from one person to another.
Social Networks
How Networks Shape the Spread of Information and Influence

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Social Networks

• People don’t know the shortest paths
Social Networks

- People don’t know the shortest paths
- Not all connections are independent
Social Networks

- Homophily
  - The tendency of individuals to associate and bond with similar others
Social Networks

• Biased tie formation
  • More likely to become friends with others who have common interests.
Social Networks

• Biased tie formation
  • More likely to become friends with others who have common interests.
• Of all the people we could be friends with, we’re more likely to be friends with other people like us.
Social Networks

• First large-scale replication of Milgram's experiment
  • Involving 24,163 e-mail chains and 18 targets around the world
Social Networks

- First large-scale replication of Milgram's experiment
  - Involving 24,163 e-mail chains and 18 targets around the world
  - Mean chain length was roughly six, even after accounting for attrition
Whom to Target in Marketing Campaigns

• Whom should you pick?
Whom to Target in Marketing Campaigns

• Whom should you pick?
  • Popularity? (Many friends)
Whom to Target in Marketing Campaigns

• Whom should you pick?
  • Popularity? (Many friends)
  • Position? (Bridging groups)
Whom to Target in Marketing Campaigns

Should you concentrate or spread out marketing efforts? (across groups, regions, etc.)
Whom to Target in Marketing Campaigns

Should you concentrate or spread out marketing efforts? (across groups, regions, etc.)

Sprinkler vs. waterfall strategy
Simple vs. Complex Contagions

• What are some simpler contagions? More complex?

(1)
Really Simple

(10)
Really Complex
Simple vs. Complex Contagions

• What are some simpler contagions? More complex?

  (1) Really Simple
  • New medical procedure
  • News article
  • Pickled pickles vs. pickled broccoli

  (10) Really Complex
Simple vs. Complex Contagions

- What are some simpler contagions? More complex?

- New medical procedure
- News article
- Pickled pickles vs. pickled broccoli

- Simpler (Piece of news, job info, diseases)
- More Complex (adoption is costly or risky)
Implications for Concentrating Efforts

• Simple → sprinkler

• Complex → waterfall

• If your product requires multiple doses, you need to concentrate marketing effort
Social Connections

• The pattern of social connections
  • Across geography, social groups, and tastes

• The more doses required for product adoption, the more you want to concentrate resources
Social Networks
Types of Ties

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Flow depends on the type of tie
Flow depends on the type of tie

Strong vs. weak ties
Types of Ties

• Strong ties - people you talk to often, known for a long period of time
  • Good friends, family members.
• Weak ties are casual relationships, people you talk to infrequently,
  • Acquaintances we don’t know very well.
Types of Ties

• Strong ties
  • 1x / week
Types of Ties

• Strong ties
  • 1x / week
  • 52 weeks/year
Types of Ties

• Strong ties
  • 1x / week
  • 52 weeks/year
  • > 10 people
Who is more useful in getting a job?

People you know well or people you know less well?
Strength of Ties

• People were more likely to find jobs through weaker ties.
Strength of Ties

• People were more likely to find jobs through weaker ties.
  • Access to different sorts of information than the job seeker.
Strength of Ties

- People were more likely to find jobs through weaker ties.
  - Access to different sorts of information than the job seeker.
  - There are more weaker ties
Strength of Ties

• Stronger ties aren’t always more useful
  • Weaker ties were more likely to help people get jobs
Type of Ties

• Weak Ties
  • Different information
Type of Ties

• Weak Ties
  • Different information
  • Different social networks
Type of Ties

• Weak Ties
  • Different information
  • Different social networks
  • More weak ties
• Tie strength not only relates to access to information. It also influences what we share.
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• What types of ties do we want to encourage word of mouth
• Tie strength not only relates to access to information. It also influences what we share.

• What types of ties do we want to encourage word of mouth
  • Strong ties- Good for spreading information within a social network
  • Weak ties- Good for spreading information outside of social network
Applying These Ideas

• If we want to get a new product or idea to catch on, we need to think about the pattern of social ties
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• Not only who has the most ties, but who has ties between groups. Who will help get our message to other islands?
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• How many doses of influence do people need and what does that mean for concentrating vs. spreading out resources?
  • Not just geography but segments
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• Will people share our message to strong or weak ties and what implication does that have for spread?
Takeaway

• Word of mouth may carry buzz, but where it goes depends on the network
Course Summary

• We’ve talked about why things catch on, how to influence others, and how to get your own products, ideas, and services to be more popular

• Started with consumer psychology and exposure, perception and memory. How exposure influences liking and how subtle cues like pricing and brand name affect perception

• Then we talk about how to make messages stick. The SUCCESs framework. Simple Unexpected Concrete Credible Emotional Stories. How to simplify and find the core. How to make things unexpected by opening a curiosity gap. How to help people understand by making things concrete. Encourage people to believe you by putting numbers in context to make them credible. Harnessing emotion to get people to care. And using stories to drive action
• Then we started moving beyond the individual
• Social influence and when it drives people to imitate others vs. avoid what they are doing
• Why wom is 10% more effective than advertising and how to harness its power by following the STEPPS. Playing off social currency and people’s desire to share things that make them look good. Triggers and finding your peanut butter. Emotion and when we care we share. Public and easy to see easy to imitate. Practical value and news you can use. And finally Trojan horse stories and how they carry messages for the ride
• Finally we situated things in a social network. How the pattern of social ties spreads information and influence and drives things to catch on
• Along the way we’ve talked about how to apply these concepts to all sorts of products and ideas.

• From B2C to B2B, from services to getting ideas to spread within and organization. From nonprofits to for profits.

• The most exciting thing is these tools don’t cost a lot of money. Anyone can use them you just need to understand how they work.

• Not random luck or chance. Science

• Understand we can craft contagious content, build successful messages, and get anything to catch on.

• Thanks for participating and may all your ideas be contagious.