
Learning Millennial-Style

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Motivation

1. On-line educational videos have changed the way people access education, share knowledge, and possibly make decisions.
2. Booming industry:
 - You Tube: one billion unique users each month.
 - Views of educational content doubled from 2011-2013
 - Nielsen: More US adults aged 18-34 access You Tube than any cable network.
 - According to You Tube, every auto-tweet results in at least six new You Tube browsing sessions.
3. Dearth of attention in academic literature studying interplay between sharing media and taking action advocated by that media.
4. Information percolation and consumer search are theoretical mainstays in economics, but little is known empirically in the on-line setting.

Motivation

1. Many consumers poorly manage their financial decisions and fall prey to deceptive advertising in retail financial markets.
2. Financial literacy in short supply
 - Lusardi and Mitchell, 2008
 - Carlin and Robinson, 2012
3. “Just-in-time” financial education may be superior
 - Fernandes, Lynch, and Netemeyer, 2014
4. Entertainment and vicarious learning
 - Berg and Zia, 2013
5. Financial literacy training through videos
 - Heinberg et al., 2014
 - Lusardi et al., 2014
6. On-line video content represents a potentially powerful way to educate young consumers. Characterizing this channel should be of interest to academics and to policymakers.

This Paper

- We study how video content simultaneously affects
 - Affects individual decision-making
 - Changes willingness to share
 - Interacts with competing forms of information
 - Possibly overcomes deceptive advertising
- Video Creation
 - 18-month production process with pilot testing
 - Animated, snarky video with three primary messages
 - Beware of credit card fees
 - Interest rates may not be fixed
 - Credit limits may not be specified, but exist
 - By controlling content, we could create purposeful variation
 - No subject could previously see it
- Approximately 1,600 subjects have participated

Primary Study

Study Design:

- 803 valid participants (MTurk) randomly assigned to watch one of two versions of the video
 - Base version
 - Base + recap + implementation (“tag” version)
- Participants then chose from among four credit cards
 - For half of the participants, there was a misleading ad (in the form of a tagline) for each credit card.
- 2 (Video: Base, Tag) x 2 (Ads: None, Misleading) design
 - Collapsed across two data collections, results entirely consistent in each
- We then assessed
 - Sharing, perceptions, attention, and search

Now, suppose that you need to apply for a new credit card. You've received the four card offers below. Which one would you choose?

Card A



Low minimum
payment
[Pricing & Terms](#)

Card B



Low fees
[Pricing & Terms](#)

Card C



Use it anywhere
[Pricing & Terms](#)

Card D



Low APR
[Pricing & Terms](#)

Card A



Card B



Card C



Card D



Pricing & Terms (A)

Please take a moment to carefully review the Pricing & Terms below.

Pricing Information

INTEREST RATES AND INTEREST CHARGES	
Purchase Annual Percentage Rate (APR)	13.99% ^a
Balance Transfer APR	13.99% ^a
Penalty APR and When It Applies	29.99% ^a The Penalty APR will be applicable to your Account if you: <ul style="list-style-type: none">• fail to make any Minimum Payment by the date and time due (late payment);• exceed your credit limit (if applicable);• make a payment to us that is returned unpaid.
How to Avoid Paying Interest on Purchases	Your due date will be a minimum of 21 days after the close of each billing cycle. We will not charge you periodic interest on purchases if you pay your entire balance by the due date each month.
Minimum Payment	\$10/month
Spending Limit	\$700

FEES	
Annual Membership Fee	\$50/year
Activation Fee	\$60
Penalty Fees	
Late Payment	Up to \$15 if the balance is less than \$100; Up to \$25 if the balance is \$100 to less than \$250; Up to \$35 if the balance is \$250 or more.
Return Payment	Up to \$35 .

Note: This account may not be eligible for balance transfers.

^a This APR may vary with the market based on the Prime Rate. We reserve the right to unilaterally change the APR for any reason with written notice.

Chase Freedom[®]



- ✓ For a limited time earn a \$200 Bonus after you spend \$500 in your first 3 months from account opening.
- ✓ 5% Cash Back on up to \$1,500 spent in bonus categories each quarter
- ✓ No Annual Fee[†]

Compare

[Learn More](#)

[†]Pricing & Terms

Slate[®] From Chase



- ✓ Introductory Balance Transfer offer[†]
- ✓ 0% Introductory APR for 15 months[†]
- ✓ No Annual Fee[†]

Compare

[Learn More](#)

[†]Pricing & Terms

CHASE SAPPHIRE PREFERRED[®]



- ✓ 40,000 bonus points after spending \$3,000 in the first 3 months from account opening
- ✓ 2X Points on travel and dining
- ✓ \$0 Intro Annual Fee, after that \$95[†]

Compare

[Learn More](#)

[†]Pricing & Terms

Pricing & Terms

Print

Please take a moment to carefully review the Pricing & Terms below.

PRICING INFORMATION

INTEREST RATES AND INTEREST CHARGES	
Purchase Annual Percentage Rate (APR)	0% Intro APR for the first 15 billing cycles that your Account is open. After that, 13.99% to 22.99% , based on your creditworthiness. These APRs will vary with the market based on the Prime Rate. ^a
Balance Transfer APR	0% Intro APR for the first 15 billing cycles that your Account is open. After that, 13.99% to 22.99% , based on your creditworthiness. These APRs will vary with the market based on the Prime Rate. ^a
Cash Advance APR	23.99% . This APR will vary with the market based on the Prime Rate. ^b
Overdraft Advance APR	23.99% . This APR will vary with the market based on the Prime Rate. ^b
Penalty APR and When It Applies	29.99% . This APR will vary with the market based on the Prime Rate. ^c The Penalty APR will be applicable to your Account if you: <ul style="list-style-type: none"> • fail to make any Minimum Payment by the date and time due (late payment); • exceed your credit limit (if applicable); • make a payment to us that is returned unpaid; or • do any of the above on another account or loan you have with us or any of our related banks. How Long Will the Penalty APR Apply: If your APRs are increased for any of these reasons, the Penalty APR will apply indefinitely.
How to Avoid Paying Interest on Purchases	Your due date will be a minimum of 21 days after the close of each billing cycle. We will not charge you periodic interest on purchases if you pay your entire balance by the due date each month. We will begin charging interest on balance transfers, cash advances, and overdraft advances on the transaction date.
Minimum Interest Charge	None
Credit Card Tips from the Consumer Financial Protection Bureau	To learn more about factors to consider when applying for or using a credit card, visit the website of the Consumer Financial Protection Bureau at http://www.consumerfinance.gov/learnmore .

FEES	
Annual Membership Fee	None
Transaction Fees	
Balance Transfers	Either \$5 or 3% of the amount of each transfer, whichever is greater.
Cash Advances	Either \$10 or 3% of the amount of each transaction, whichever is greater.
Foreign Transactions	3% of each transaction in U.S. dollars.
Penalty Fees	
Late Payment	Up to \$15 if the balance is less than \$100; up to \$25 if the balance is \$100 to less than \$250; up to \$35 if the balance is \$250 or more.
Over-the-Credit-Limit	None
Return Payment	Up to \$35 .
Return Check	Up to \$35 .

Note: This account may not be eligible for balance transfers.

Loss of Intro APR: We will end your introductory APR if any required Minimum Payment is 60 days late, and apply the Penalty APR.

How We Will Calculate Your Balance: We use the daily balance method (including new transactions).

Prime Rate: Variable APRs are based on the 3.25% Prime Rate as of 2/22/2010.

^aWe add 10.74% to 19.74% to the Prime Rate to determine the Purchase/Balance Transfer APR.

^bWe add 20.74% to the Prime Rate to determine the Cash/Overdraft Advance APR.

^cWe add 26.99% to the Prime Rate to determine the Penalty APR. Maximum APR 29.99%.

Measures

- Choice
 - Card C dominated the other cards
- Number of clicks on pricing & terms of each card
 - Total and difference across cards
- Time spent on pricing & terms of each card
 - Total and difference across cards
- Attributes of the video and perceived effectiveness
 - Attribute items from Olney, Holbrook, and Batra (1991)
- Sharing
 - Willingness to and likelihood of sharing the video with friends, family members, and co-workers (Berger 2011)

Results: Attention and Choice

- Deceptive ads caused people to spend less time on their decision and led to worse choices.
 - People spent less total time and used less total clicks ($p < 0.001$)
 - Difference in clicks on Card C versus other cards much lower ($p < 0.001$). Less focused search.
 - Those who saw misleading ads were less likely to choose the dominant card (33.3% vs 51.4%, $z = -5.356$, $p < 0.001$)
 - Lower attention caused worse choices
- Tagged video led to higher quality search process.
 - Overall, seeing tagged video led to more time spent on search
 - Qualified by interaction: only in presence of ads
 - Difference in clicks on Card C versus other cards higher than base video ($p < 0.001$). More focused search.
 - Those who saw tagged video were more likely to choose the dominant card (50.1% vs 34.4%, $z = 4.721$, $p < 0.001$)
 - Higher attention caused better choices.

Results: Perceptions and Sharing

- Tagged video perceived differently from base video
 - Perceived effectiveness ($p < 0.001$)
 - Less special ($p = 0.017$)
 - More useful ($p < 0.001$)
 - Not different on hedonic or interesting.
- Video type and sharing
 - Tagged video less likely to be shared after controlling for perceived effectiveness.
 - Results from two opposing effects.
 - Tagged video increased sharing by increasing perceived effectiveness.
 - Also had strong negative direct effect on sharing ($p < 0.001$)

Takeaways

- Online videos have the potential to improve financial decisions.
 - However, presenting the information in a “sticky” format is not sufficient. It must be implementable in order to direct attention appropriately.
- Videos and deceptive advertisements affected choice through their effects on the amount and allocation of attention.
- Effective does not mean sharable.
- Fundamental problem for encouraging good financial decisions through social media
 - The very videos that have the greatest potential to improve decision quality may be the ones that are less shareable.
 - Risk of adding implementable information

Other Considerations

- Video ineffective in a cell phone choice:
 - People much better at choosing phone plans
 - Will run studies to test breadth with other loans
- Deceptive ads probably affect information sharing as well
 - Study design limited ability to detect
 - Assessing willingness to share may not be the same as studying whether actions change due to deception
 - This may impact welfare and be important as CFPB prosecutes unfair, deceptive, and abusive acts.
- Are effects robust over time
- Field study