

Using Behavioral Nudges to Drive Participation in Student Events

Sidrah Ahmad, Thomas Letchford, Adrian Mati, Rahi Patel

Presentation Outline

- ▶ Introduction and Theory
- ▶ Question and Experiment
- ▶ Data and Analysis
- ▶ Key Take-Aways

Introduction: behavioral nudges in the literature

- ▶ Popularized by Nobel-prize laureate Richard Thaler in his 2008 book *Nudge*, choice architecture attempts to influence people to make better choices "for society and for themselves".
- ▶ In a journal written by Palgrave Communications on comparing the usage of nudges and boosts on financial decisions under uncertainty, one of the main takeaways saw the effect of disclosure nudges and boosts differing depending on loss and gain framing.



[This Photo](#) by Unknown Author is licensed under [CC BY-SA-NC](#)

Behavioral Nudges

- ▶ Disclosure nudges are when decision-relevant information is presented in an explicit way, leaving no room for subjects to question critical details prior to making their choices.
- ▶ Boosts aim to strengthen decision-making capabilities in individuals when being provided with information.



The Focus Theory of Normative Conduct

- ▶ Norms are likely to influence behavior directly when they are focal in attention and salient in consciousness.
- ▶ Two distinct types
 - Descriptive
 - Injunctive
- ▶ For our experiment we used a descriptive norm with a normative focus.



Behavioral Nudges in Email Marketing

- ▶ Using an intervention with the concept “social proof” plays on the human tendency to default to “appropriate” behavior.
- ▶ Then using an intervention with the concept of “reciprocity” plays on the strong human impulse to return favors.



Background

- ▶ Increase student participation in ISA's annual Diwali event
- ▶ ISA communicates event information via WhatsApp
- ▶ Email marketing forms a critical component of ISA's overall marketing strategy
- ▶ Uses university email addresses to increase certainty that students will respond



Intro

Question

Analysis

Take-aways

Question

- ▶ Would nudges increase the intent for participation in an ISA event?
- ▶ We randomly assigned each email address in the ISA email list to one of the three groups.
- ▶ UTD email addresses consist of three initials followed by a string of six numbers
- ▶ We are confident that the three groups are randomly selected, given the size of sample ($N > 6000$) and the nature of the de-identified email addresses.

Complete Random Assignment

Email	Random #	Group
email1	0.69869487	
email2	0.36554486	
email3	0.41100302	
email4	0.96642719	
email5	0.83713043	
email6	0.76218441	
email7	0.32538817	
email8	0.42979925	
email9	0.57448025	

Email	Random #	Group
email7	0.32538817	A
email2	0.36554486	A
email3	0.41100302	A
email8	0.42979925	B
email9	0.57448025	B
email1	0.69869487	B
email6	0.76218441	C
email5	0.83713043	C
email4	0.96642719	C

Intro

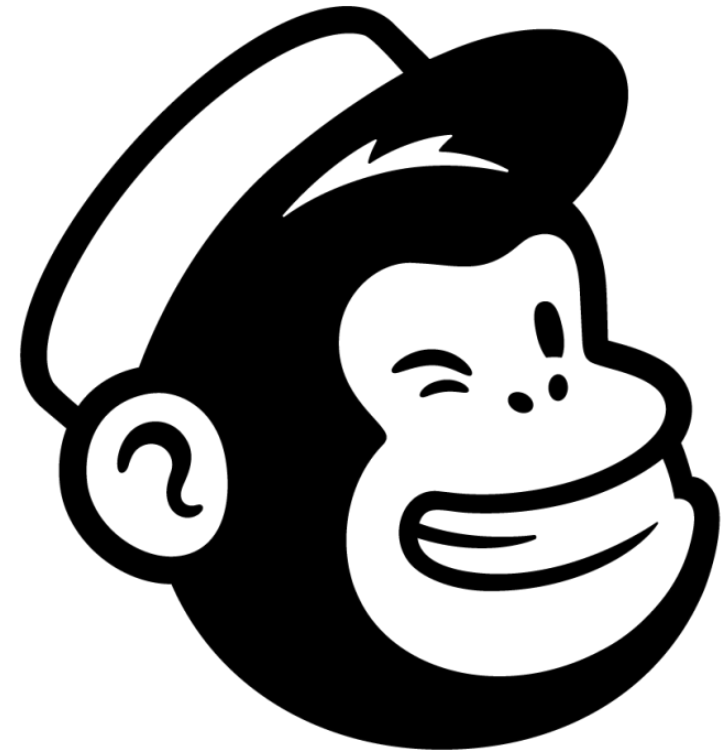
Question

Analysis

Take-aways

Experiment

- ▶ Standard ISA email blast to all members of the ISA email list
- ▶ We then sent a reminder email that include a RSVP link
- ▶ Control: ISA members received a copy of the original email with an RSVP link.
- ▶ Treatment 1: a version of the email that employs the use of “social proof” or social majority norm in the text of the email and on the attached poster
- ▶ Treatment 2: a version of the email that employs the use of the social norm reciprocity



mailchimp



Email

Exhibit 1: Control

Howdy Comets,

UTD's Indian Students Association (ISA) is thrilled to invite you to an exciting Diwali event with a night full of lights, music, dance and more!

[RSVP here](#)

Date: November 1st, 2021

Time: 5:00pm - 8:00 pm

Location: SU Auditorium

Exhibit 2: Treatment 1 – Social Proof

Howdy Comets,

UTD's Indian Students Association (ISA) is thrilled to invite you to an exciting Diwali event with a night full of lights, music, dance and more! Over half of ISA members attended the last in-person Diwali event.

[RSVP here](#)

Date: November 1st, 2021

Time: 5:00pm - 8:00 pm

Location: SU Auditorium

Exhibit 3: Treatment 2 - Reciprocity

Howdy Comets,

UTD's Indian Students Association (ISA) is thrilled to invite you to an exciting Diwali event with a night full of lights, music, dance and more! The ISA team has worked tirelessly to bring you a great Diwali celebration.

[RSVP here](#)

Date: November 1st, 2021

Time: 5:00pm - 8:00 pm

Location: SU Auditorium

Intro

Question

Analysis

Take-aways

Data Collection

- ▶ We compared the proportions of positive responses through the RSVP link (of recipients who opened the email)
- ▶ This year's event was in an outdoor space that did not allow for controlling individual entry
- ▶ Intention to attend does not provide the same quality of insight as actual attendance at the event
- ▶ Next best thing with COVID-19 pandemic conditions



Issues

- ▶ Although we received confirmation that we would be able to gain access to official login information, it turned out there was a misunderstanding between the two parties.
- ▶ Did not receiving the credentials until the day before experiment start date
- ▶ Runtime was cut short by a few hours because of the previous miscommunication



Solution



In order to complement and strengthen our findings, we wanted to run a survey on a hypothetical event using the same two nudges as before.



With such a short turnaround time between the ending of the first study and the final deadline, we published a survey but were unable to collect sufficient data to include in our analysis.



New Email and Poster

Control

UTD PRESENTS
Winter Holidays
DRIVE-IN CINEMA

Howdy Comets,
The UTD Fun Club is thrilled to invite you to an exciting Drive-In Cinema with a night full of your favourite Winter Holiday movies!

Date: December 3rd, 2021
Time: 6:00pm - 9:00 pm
Location: LOT Z Overflow



Treatment 1 Social Proof

UTD PRESENTS
Winter Holidays
DRIVE-IN CINEMA

Howdy Comets,
The UTD Fun Club is thrilled to invite you to an exciting Drive-In Cinema with a night full of your favourite Winter Holiday movies!
Over half of UTD students attended the last event.

Date: December 3rd, 2021
Time: 6:00pm - 9:00 pm
Location: LOT Z Overflow



Treatment 2 Reciprocity

UTD PRESENTS
Winter Holidays
DRIVE-IN CINEMA

Howdy Comets,
The UTD Fun Club is thrilled to invite you to an exciting Drive-In Cinema with a night full of your favourite Winter Holiday movies!
The UTD Fun Club has worked tirelessly to bring you this Cinema Night.

Date: December 3rd, 2021
Time: 6:00pm - 9:00 pm
Location: LOT Z Overflow



Data and Analysis

Group	Contacts	Opened email	RSVP “Yes”	Proportion “Yes”	p-value
Control	1394	437	28	6.407 %	-
Treatment 1	1394	520	27	5.192 %	0.5060
Treatment 2	1387	552	29	5.245 %	0.5249

- 4175 emails sent
- 1509 opened (36%)
- 84 “Yes” responses (5.6%)

Intro

Question

Analysis

Take-aways

Key Take-Aways

Overall inconclusive results to evaluate effectiveness of nudges through Email RSVPs

Communicate to all parties involved about mutual benefit

Consider more than one way to capture outcome variable

Consider upgrading Mailchimp for ongoing A/B testing

Future testing on other social media platforms may work better for ISA

Intro

Question

Analysis

Take-aways