

MOBILE NEWS NOTIFICATIONS: A TWO-WAVE EXPERIMENT WITH SMARTPHONE USERS



**ENGAGING
NEWS
PROJECT**

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OVERVIEW AND METHODOLOGY

MOTIVATING QUESTIONS



With the proliferation of smartphones and the ability to send mobile news notifications ...

- Do notifications have an economic benefit for newsrooms?
Do they drive traffic to the news app or to the news site?
- Do notifications have a democratic benefit? Do they inform the public or simply provide information that could have been learned elsewhere?

PROJECT-SPECIFIC QUESTIONS



Do people who enable news notifications differ from those who disable notifications in:

- How frequently they use the news app?
- How frequently they visit the news site?
- How much they learn about current news events?

What do people like/dislike about news notifications?

KEY FINDINGS



- Those asked to install an app and allow notifications reported using the app more frequently than those asked to install the app without allowing notifications.
- Notifications significantly increased knowledge in some instances.
- Older respondents had greater intentions than younger ones to keep the news notifications installed on their phones.
- Half of the respondents who reported allowing notifications said that they went to the app or news organization's website in response to a notification.
- Asked what they liked most about notifications, many mentioned relevant content and useful information.
- Asked what they liked least, people often mentioned the frequency of notifications and untailored content.

STUDY DESIGN AND METHODOLOGY



- Two-wave experiment using data from 420 adult smartphone users.
- Data were collected in July and August 2016, using Survey Sampling International and Amazon's Mechanical Turk.
- In the first wave, participants were asked, at random, to download the CNN app, the BuzzFeed News app or the E! News app.
- We also asked them, again at random, either to enable or disable notifications for the app, resulting in six different experimental conditions.
- In the second wave, approximately two weeks later, we asked the study participants to tell us about their experience with the app and notifications.

SIX EXPERIMENTAL CONDITIONS



Study participants were randomly assigned to one of six conditions:

CNN APP

BUZZFEED NEWS APP

E! NEWS APP

CNN APP

+

NOTIFICATIONS

BUZZFEED NEWS APP

+

NOTIFICATIONS

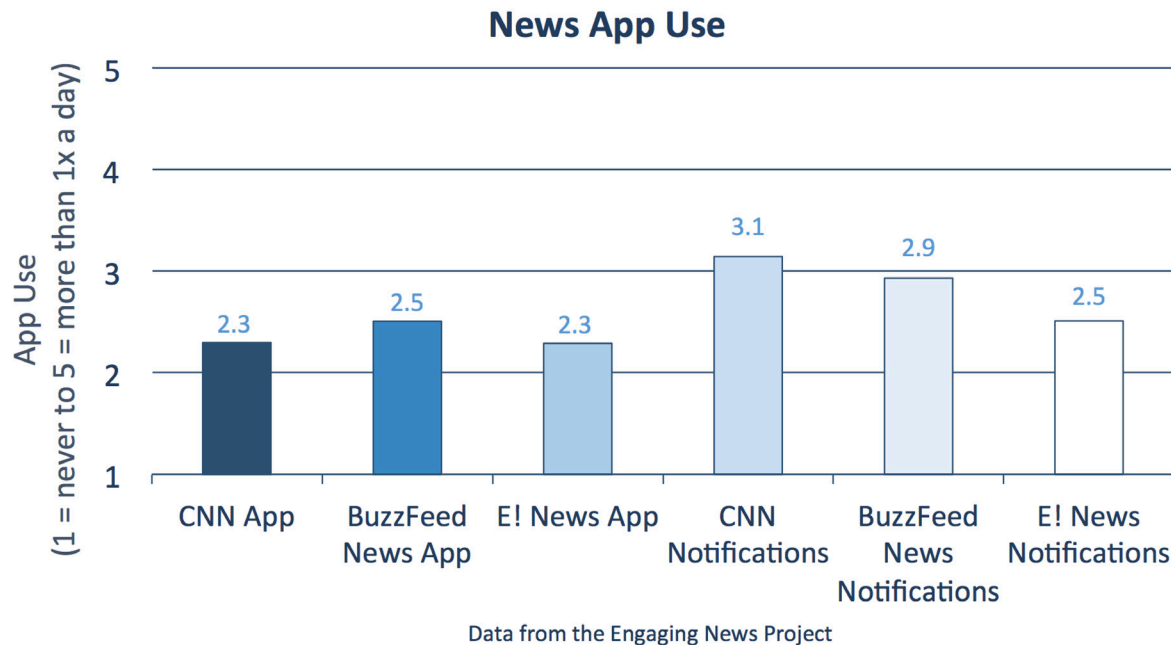
E! NEWS APP

+

NOTIFICATIONS

APPS & SITE TRAFFIC

NOTIFICATIONS CAN INCREASE APP USE



Those asked to install the app with notifications reported significantly higher app use than those asked to install the app without notifications.

27% of those asked to install the app with notifications used it daily or more often compared to 12% of those asked to install the app without notifications.

HALF OF RESPONDENTS REPORTED GOING TO NEWS APP OR WEBSITE AFTER RECEIVING NOTIFICATION

Actions after Receiving a Notification

| | |
|---|-------|
| Swiped a notification to open the app | 58.5% |
| Went to the news organization's website to learn more about a notification | 56.5% |
| Searched for more information using a search engine like Google after seeing a notification | 37.1% |
| Turned to social media like Facebook or Twitter because of a notification | 23.4% |
| (CNN only) Turned to CNN because of a notification | 13.2% |

Note: For those assigned to receive BuzzFeed News or CNN notifications only, there were no significant differences across these two organizations.



NEWS KNOWLEDGE

NOT ALL NOTIFICATIONS ARE CREATED EQUAL



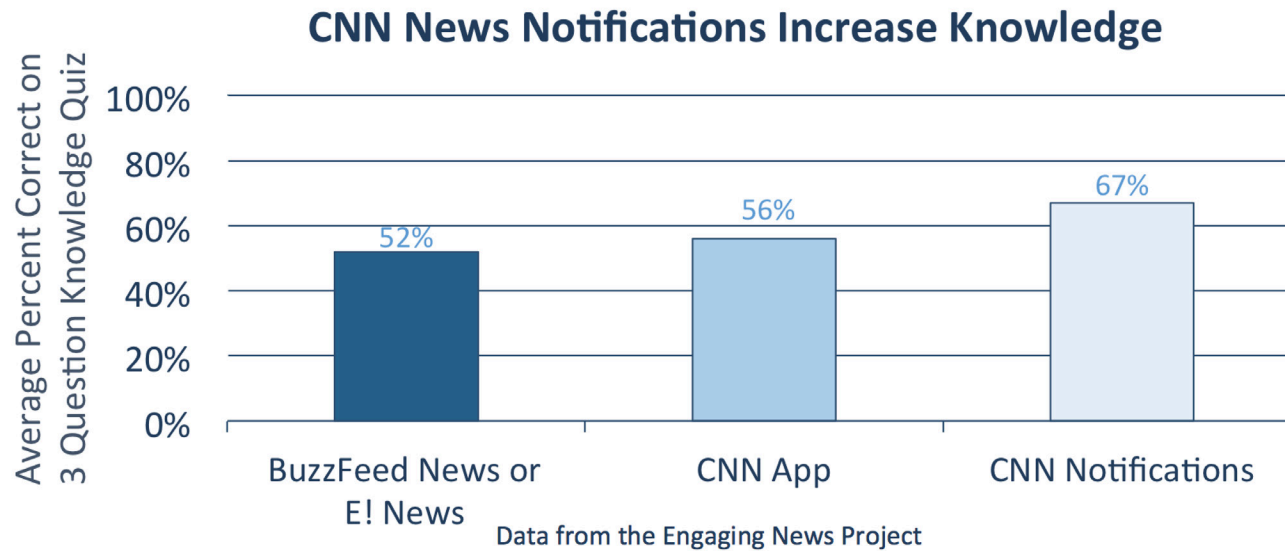
Given that the information found in news notifications is broadly available, it isn't clear whether notifications will have a measurable effect on what people know.

We found that notifications sometimes increase knowledge, but not always.

Future research should determine why some notifications increase knowledge and not others by looking at:

- When they're sent
- How they're crafted
- What else is going on in the information environment

NOTIFICATIONS CAN INCREASE KNOWLEDGE, BUT THEY DON'T ALWAYS

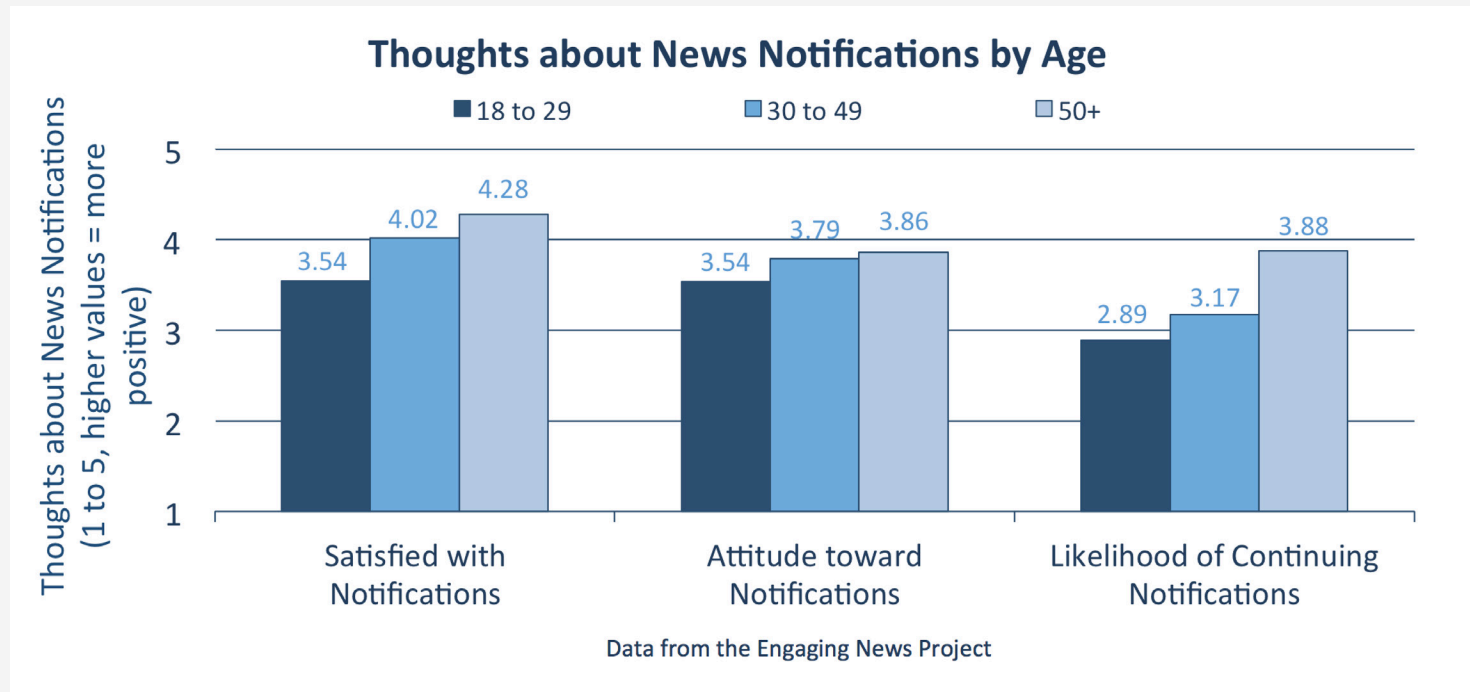


40% of those assigned to receive CNN news notifications answered all 3 knowledge questions (created based on the notification content) correctly; only 20% of those in the other experimental conditions did so.



AGE DIFFERENCES

OLDER RESPONDENTS FAVORED NEWS NOTIFICATIONS



Older respondents were more satisfied with the notifications than younger respondents and also had more positive attitudes toward notifications and said they were more likely to keep the notifications on their phone after the study ended.

Seventeen percent of 18-29 year olds said that they were very likely to keep the notifications on their phone compared to 27% of 30-49 year olds and 37% of 50+ year olds.

NOTIFICATIONS: LIKES AND DISLIKES

NOT ALL NOTIFICATIONS ARE CREATED EQUAL



LIKES

(among those installing notifications, n=207)

- The content is interesting, relevant, and helps them stay informed (63.4%)
 - *“It was informative about recent topics. Olympics, presidential election etc.”*
 - *“Got breaking news that I wasn’t expecting.”*

DISLIKES

(among those installing notifications, n=207)

- Content (32.4%)
 - *“Because it was not tailored to my needs and gave me information on things I do not care about.”*
- Quantity and timing (20.8%)
 - *“Too many.”*
 - *“Times it would go off.”*

*Responses are from 207 participants who installed notifications.
Multiple responses were permitted; the most common categories are reported above.*

UNINSTALLED THE APP



WHY DID YOU UNINSTALL THE APP?

(among those uninstalling the app, n=48)

- Did not use it or enjoy it (39.6%)
 - *“It is useless.”*
- Device or data plans (37.5%)
 - *“I got a new phone.”*
 - *“I didn’t want to use up all my memory.”*
- Content (22.9%)
 - *“The app did not have news that interested me.”*

WHY DID YOU TURN OFF NOTIFICATIONS?

(among those who turned off notifications, n=30)

- Content (33.3%)
 - *“The information they were giving me didn’t feel relevant enough for the distraction.”*
 - *“I was getting notified about things I couldn’t possibly care about.”*
- Quantity and timing (30.0%)
 - *“Too many.”*
 - *“Waking me up at night.”*
- General distaste for notifications (26.7%)
 - *“I don’t like app notifications in general.”*
 - *“I found them to be obtrusive and annoying after a while.”*

Responses are from 30 participants who turned off notifications.

Multiple responses were permitted; the most common categories are reported above.

CONCLUSIONS AND NEXT STEPS

Mobile news notifications ...

- Prompt more engagement with the organization's app and website.
- Can help people to learn more, but don't do so in all circumstances.

There are important demographic differences; age in particular emerges as an important factor

This methodology can yield helpful insights about user preferences

The results show notifications increase learning and engagement in some instances, but not all

- We need to know more about which types of notifications increase learning and engagement.
- We should explore whether there are novel strategies for sparking learning and engagement, such as what The Guardian has been doing with web notifications.

The results show interest in the ability to tailor notifications

- We need to know how this option would affect learning and engagement.
- We need to know what sort of tailoring is most desired and most helpful (for example, topic, time of day, number of alerts, etc.).



METHODOLOGICAL APPENDIX

KNOWLEDGE ABOUT FACTS FROM THE NOTIFICATIONS



We asked study participants three types of news knowledge questions:

1. News content that was included in both the CNN and BuzzFeed News notifications
2. News content that was included in the BuzzFeed News notifications, but not the CNN or E! News notifications
3. News content that was included in the CNN notifications, but not the BuzzFeed News or E! News notifications

For the first two, there were no differences across the conditions

- Those who received notifications from CNN or BuzzFeed News were not more knowledgeable than other participants about content covered in both organizations' notifications.
- Those assigned to receive BuzzFeed News notifications were not more knowledgeable about BuzzFeed News notification content than other participants.

There were differences for the third (see slide 14)



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