

Social Media and Political Participation

Lab 4

*sk5350@nyu.edu*¹

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¹Adapted from Pablo Barberá and Drew Dimmery

Today

- Facebook: what is it? Main features.
- Introduction to the Facebook API
- Collecting Facebook data using the API
- Quantitative analysis of Facebook data
- In-class exercise: capture and analyze your own Facebook data

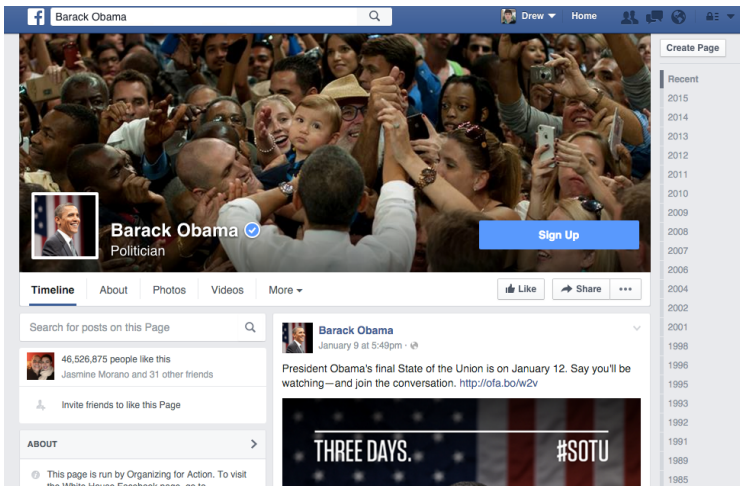
Facebook

Facebook's numbers

- 1.5+ billion monthly active users
- 10 billion messages are sent everyday
- 1.3 trillion “like” activities since 2009
- 71% of online U.S. adults use Facebook
- 87% of young adults in US (18-29) report using Facebook actively
- 47% of Facebook users get news through this platform
- 99% of Members of U.S. Congress have a Facebook account



Facebook's main features



The screenshot shows the Facebook profile of Barack Obama. The header features the Facebook logo, a search bar with "Barack Obama" entered, and navigation links for "Drew" and "Home". Below the header is a large cover photo of Barack Obama surrounded by a crowd. To the left of the cover photo is a profile picture of Barack Obama and his name "Barack Obama" with a verified badge and the title "Politician". To the right of the cover photo is a blue "Sign Up" button. Below the cover photo are tabs for "Timeline", "About", "Photos", "Videos", and "More". The "Timeline" tab is selected, showing a post from January 9 at 5:49pm. The post text reads: "President Obama's final State of the Union is on January 12. Say you'll be watching—and join the conversation. <http://ofa.bo/w2v>". Below the text is a banner image with the text "THREE DAYS." and "#SOTU". To the left of the post is a search bar for posts on the page, showing 46,526,875 likes and an "Invite friends to like this Page" button. Below the search bar is an "ABOUT" section with a right arrow. At the bottom of the "ABOUT" section, it says: "This page is run by Organizing for Action. To visit the White House Facebook page, go to". To the right of the post is a "Create Page" button and a "Recent" list of years from 2015 down to 1985.

Barack Obama's Facebook Page

Facebook's main features

The screenshot displays the Facebook News Feed interface for a user named Sean Kates. The top navigation bar includes a search bar, user profile, and links to Home, Find Friends, and other social features. The left sidebar contains navigation options like News Feed, Messages, and Shortcuts. The main feed area shows a status update from Sabrin Chowdhury Munaim celebrating an anniversary, accompanied by a photo of a couple. To the right, there are sections for Trending topics (listing Ted Cruz, Ric Flair, and Joely Fisher) and a Sponsored advertisement for Nordstrom Rack featuring men's boots. The rightmost sidebar promotes the Messenger app and lists friends with their last seen status.

Facebook News Feed interface showing a user's profile (Sean Kates), a status update from Sabrin Chowdhury Munaim, and a sponsored advertisement for Men's Boots up to 70% off!

My News Feed

Facebook's main features

Three main features

- ① Timeline: profile with photos, lists of interests, contact information, personal background, etc.
- ② News Feed: shows status updates by users and profile changes, which can be “liked”, “shared” or “commented”
- ③ Messenger: allows users to communicate privately

Other features:

pages Public Facebook profiles for political figures, companies, celebrities...

like Positive feedback on a post, page, or link

share Re-publication of another user's content

The offline effects of Facebook

Three defining characteristics of Facebook

- ① Most content is private
- ② “Friends” are usually actual friends
- ③ Social metrics for every post

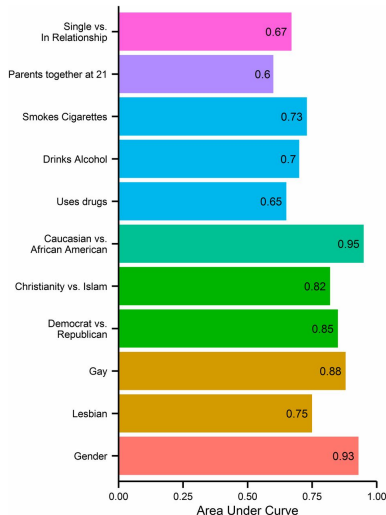
Consequences:

- Facilitates organization of collective action
 - “Social Media and the Decision to Participate in Political Protest: Observations From Tahrir Square”, by Tufekci and Wilson, *Journal of Communication* (2012)
- Channels social influence on political behavior
 - “A 61-million-person experiment in social influence and political mobilization”, by Bond et al, *Nature* (2012).
- Social cues that affect behavior
 - “Endorsements Trump Partisan Source Affiliation when Selecting News Online”, by Messing and Westwood, *Communication Research* (2014).

Learning from Facebook networks

“Private traits and attributes are predictable from digital records of human behavior”, by Kosinski, Stillwell, and Graepel, *PNAS* (2013)

ABSTRACT: We show that easily accessible digital records of behavior, Facebook Likes, can be used to automatically and accurately predict a range of highly sensitive personal attributes including: sexual orientation, ethnicity, religious and political views, personality traits, intelligence, happiness, use of addictive substances, parental separation, age, and gender.



Facebook API

Facebook API

API = *Application Programming Interface*

Facebook gives researchers access to two different types of data:

- 1 Data from Facebook pages (posts, likes, comments)
- 2 User's personal data (profile, checkins, likes...)

Rfacebook package gives access to both with the following functions:

- 1 getPage and getPost
- 2 getUsers, getCheckins, getLikes

Collecting Facebook Data

The R script `lab4_collecting_facebook_data` shows how to:

- Install R package to download Facebook data
- Use OAuth to authenticate
- Display your profile information
- Capture data from a Facebook page

Collecting Facebook Data

The R script `lab4_analyzing_facebook_data` shows how to:

- Load R package to download Facebook data
- Use OAuth to authenticate
- Analyze metrics of a Facebook page over time
- Prepare a wordcloud that summarizes comments on a page

In-class exercise

In-class exercise: collecting and analyzing Facebook data

Create your own R script (with comments) that:

- ① Downloads the most recent 1000 posts on a Facebook page of a celebrity or politician.
- ② Runs different commands to answer the following questions:
 - ① Which of these 1000 posts received the most likes, comments, shares? Are these three different? If so, why?
 - ② Create a plot that shows the evolution in the number of likes on posts over time. Is the popularity of this page growing?
 - ③ Choose a post and download all the likes on that post. (If they are too many, choose the first 500). Then, download the user information and look at the most common first names. What's the gender distribution?
 - ④ Download also the comments on that post (or the first 1000). Then, do a wordcloud of the most common words. What do you learn?

And send it to me via email (sk5350@nyu.edu)