

# Social Media and Political Participation

## Lab 4

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<sup>1</sup>Adapted 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



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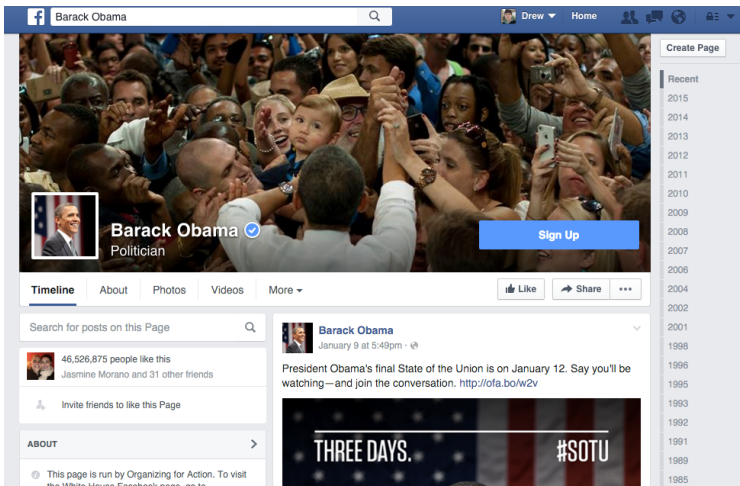


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# Facebook's main features



The screenshot displays the Facebook profile of Barack Obama. At the top, a navigation bar includes the Facebook logo, a search bar with "Barack Obama" entered, and user navigation options like "Drew" and "Home". The main header features a large crowd photo, a profile picture of Barack Obama, his name "Barack Obama" with a verified checkmark, and the title "Politician". A blue "Sign Up" button is positioned to the right. Below the header, a horizontal menu shows "Timeline", "About", "Photos", "Videos", and "More". The "Timeline" tab is active, 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, a search bar for the page is shown, along with statistics: "46,526,875 people like this" and "Jasmine Morano and 31 other friends". Below this is an "Invite friends to like this Page" button. Further down, an "ABOUT" section indicates the page is run by "Organizing for Action". On the right side, a "Create Page" button and a "Recent" list of years from 2015 down to 1985 are visible.

## Barack Obama's Facebook Page

# Facebook's main features

The screenshot shows the Facebook news feed for user Sean Kates. The interface includes a top navigation bar with the Facebook logo, a search bar, and user profile information. The left sidebar contains navigation options like News Feed, Messages, and Shortcuts. The main content area displays a post 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 shows a list of friends and a Messenger app promotion.

## 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

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# 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).
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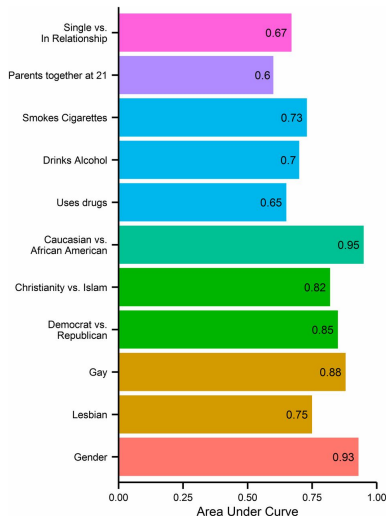
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# Learning from Facebook networks

“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

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API = *Application Programming Interface*

Facebook gives researchers access to two different types of data:

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

Rfacebook package gives access to both with the following functions:

- ➊ getPage and getPost
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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
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## In-class exercise

# In-class exercise: collecting and analyzing Facebook data

Create your own R script (with comments) that:

- ❶ Downloads the most recent 1000 posts on a Facebook page of a celebrity or politician.
- ❷ Runs different commands to answer the following questions:
  - ❶ Which of these 1000 posts received the most likes, comments, shares? Are these three different? If so, why?
  - ❷ Create a plot that shows the evolution in the number of likes on posts over time. Is the popularity of this page growing?
  - ❸ 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?
  - ❹ 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](mailto:sk5350@nyu.edu))