THE INTERNET!

SURVEY OF PROFESSIONAL MEDIA
LINDENWOOD UNIVERSITY
FALL 2016

FIRST KNOWN IMAGE ON THE INTERNET

1992 - First known image posted to the internet.
Promoted comedy act at CERN laboratory in Switzerland

1.8 Billion
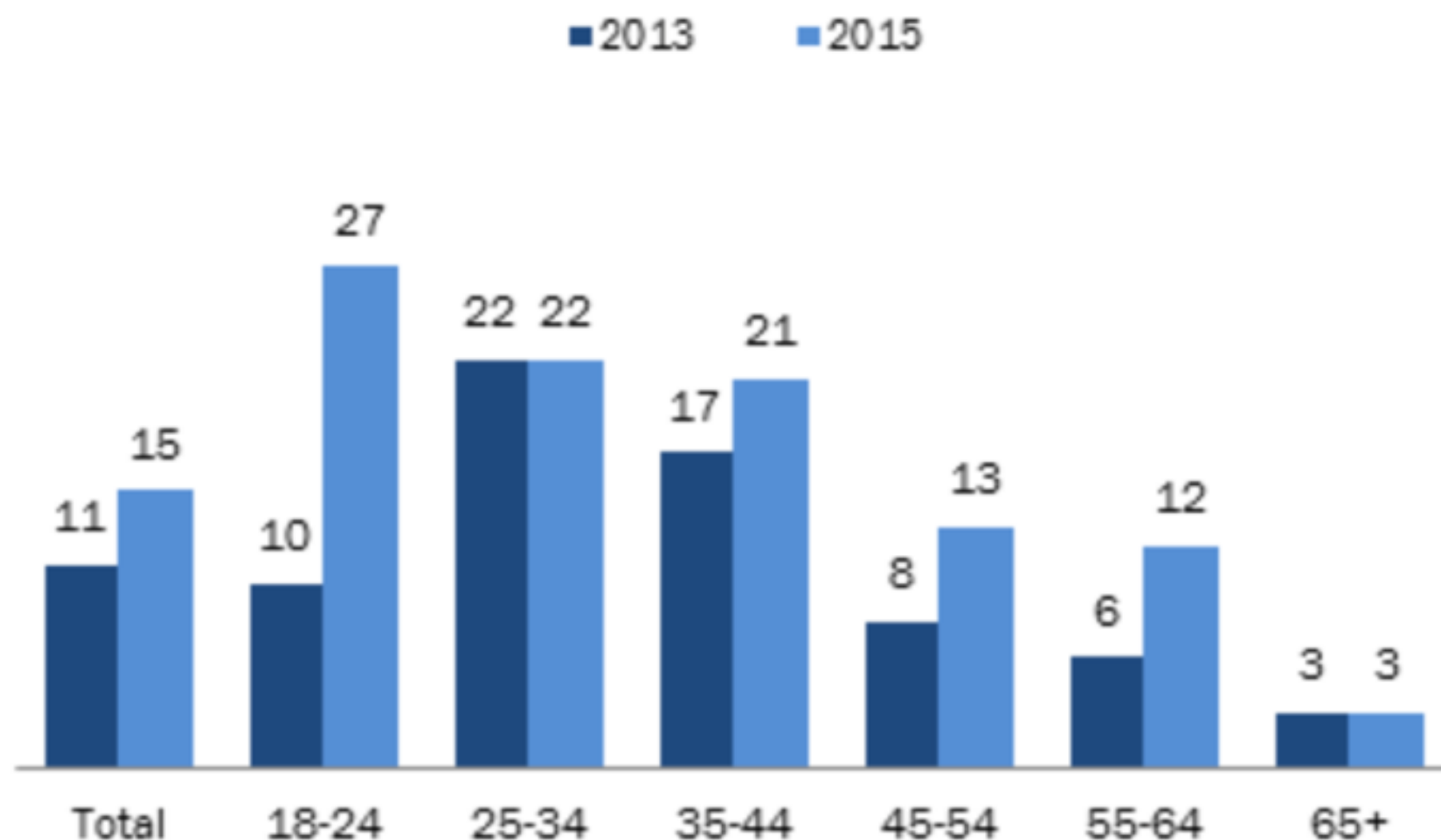
The estimated number of images
uploaded to the internet
EVERY DAY
in 2014

(via *The Atlantic*)

Use of online dating sites or mobile apps by young adults has nearly tripled since 2013

% in each age group who have ever used an online dating site and/or mobile dating app
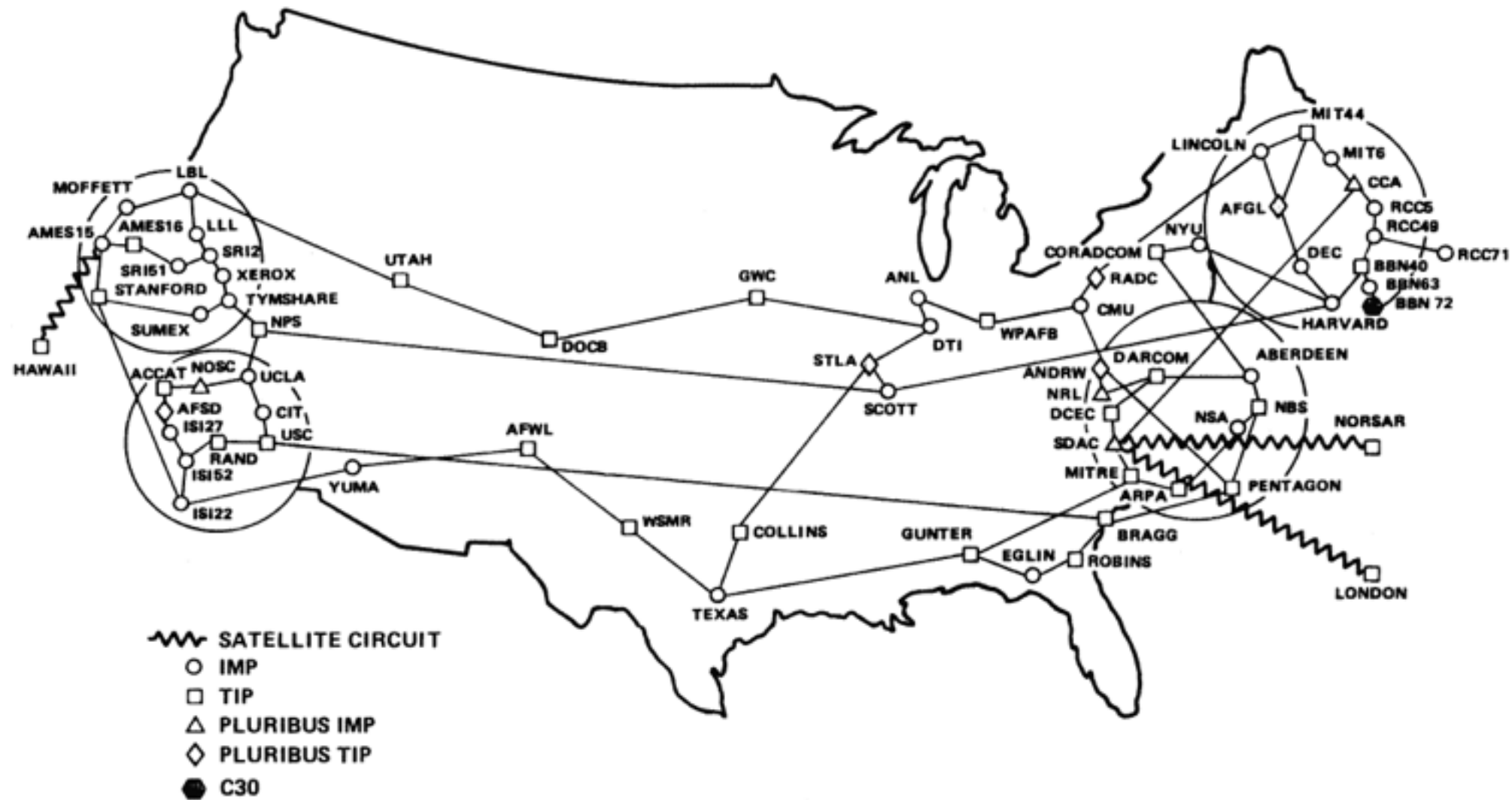
■ 2013　■ 2015

Age group	2013	2015
Total	11	15
18-24	10	27
25-34	22	22
35-44	17	21
45-54	8	13
55-64	6	12
65+	3	3

THE INTERNET'S EARLY YEARS

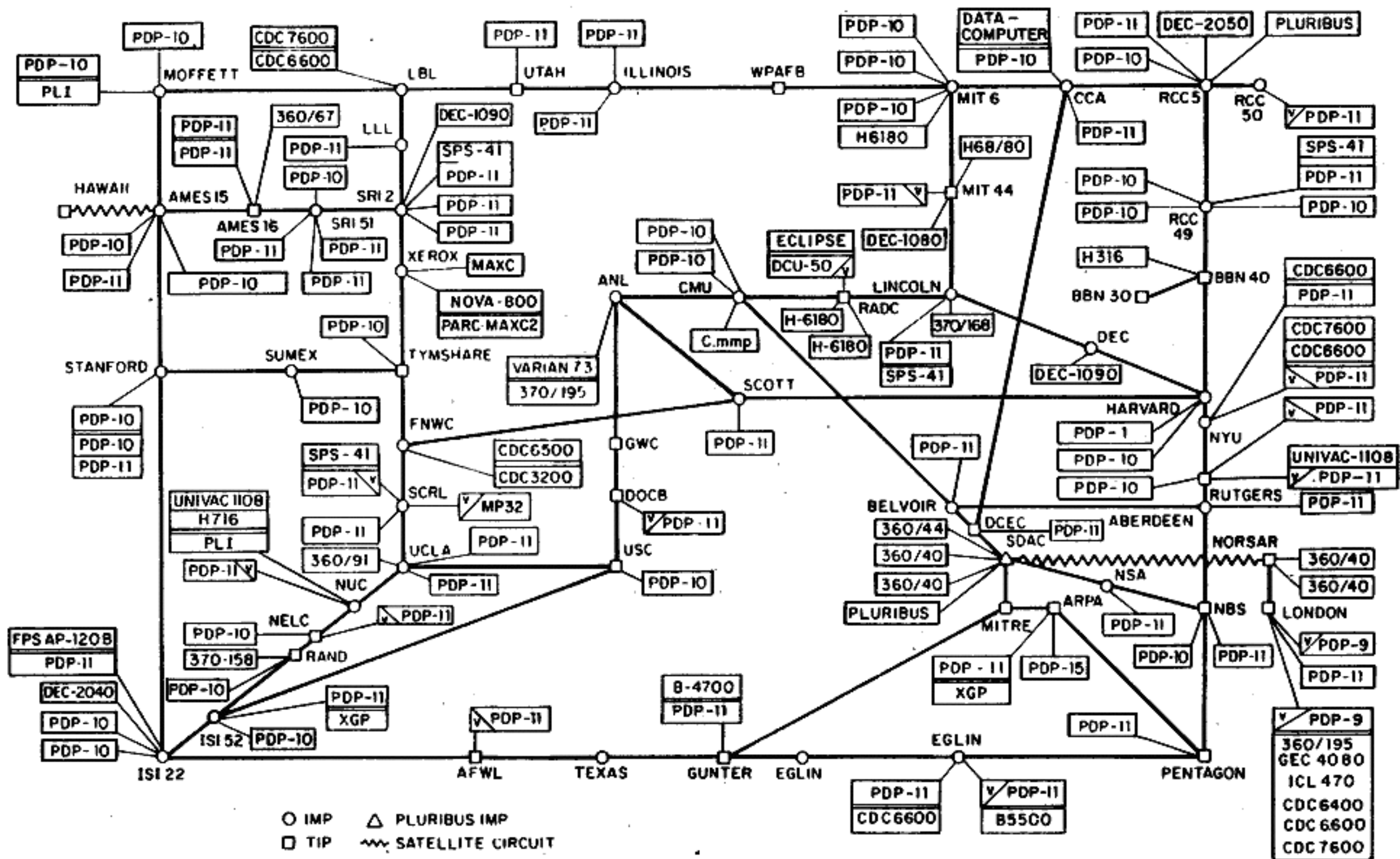ARPANET GEOGRAPHIC MAP, OCTOBER 1980

∿∿∿ SATELLITE CIRCUIT
○ IMP
□ TIP
△ PLURIBUS IMP
◇ PLURIBUS TIP
⬡ C30

(NOTE: THIS MAP DOES NOT SHOW ARPA'S EXPERIMENTAL SATELLITE CONNECTIONS)
NAMES SHOWN ARE IMP NAMES, NOT (NECESSARILY) HOST NAMES

ARPANET LOGICAL MAP, MARCH 1977

Legend:
- ◯ IMP
- △ PLURIBUS IMP
- ☐ TIP
- 〰 SATELLITE CIRCUIT

(PLEASE NOTE THAT WHILE THIS MAP SHOWS THE HOST POPULATION OF THE NETWORK ACCORDING TO THE BEST INFORMATION OBTAINABLE, NO CLAIM CAN BE MADE FOR ITS ACCURACY)

NAMES SHOWN ARE IMP NAMES, NOT (NECESSARILY) HOST NAMES
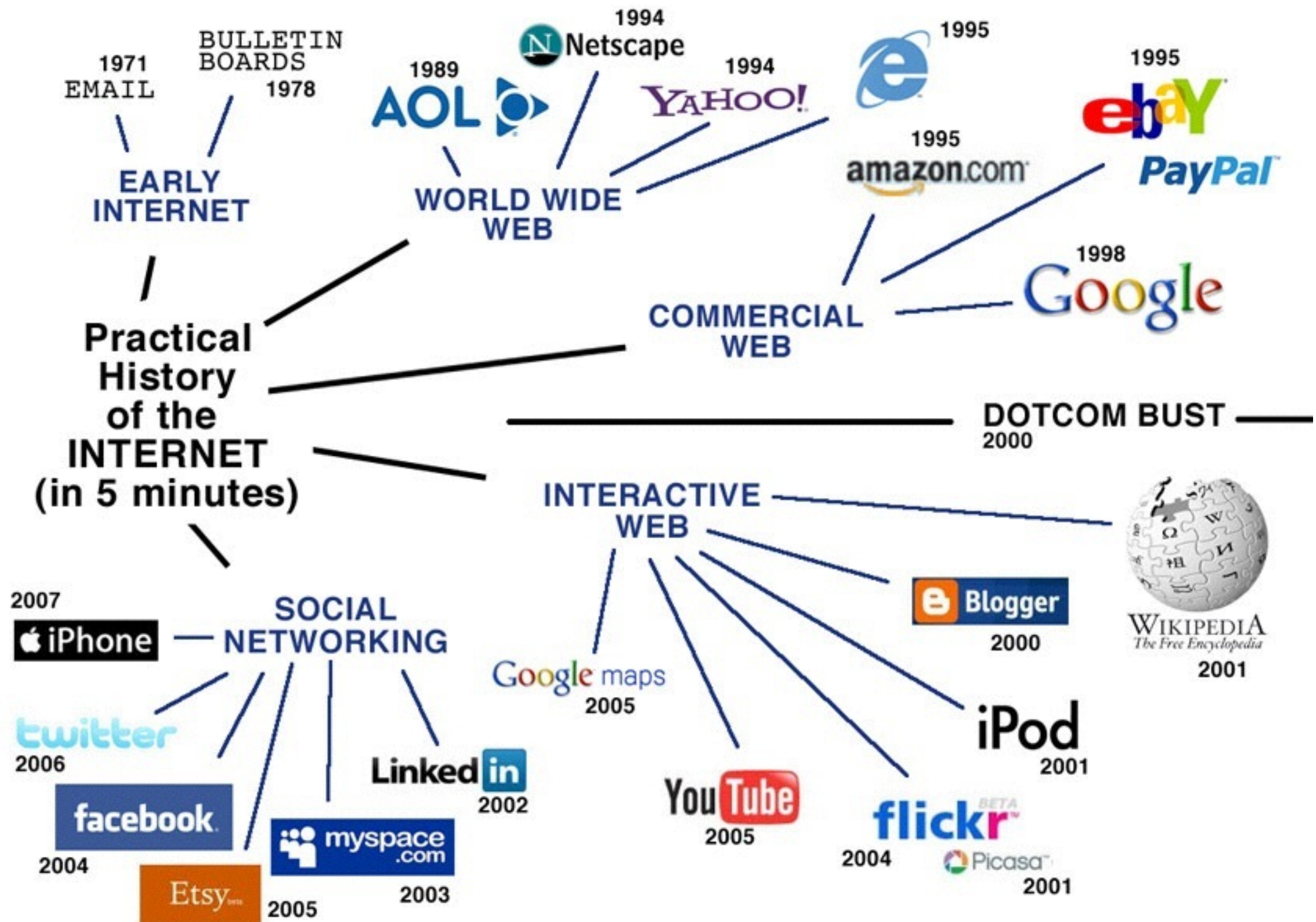
US MILITARY ORIGINS

BEHOLD MY LATEST INVENTION ...

THE INTERNET

Former Presidential Candidate Al Gore

US MILITARY ORIGINS OF THE INTERNET

- <u>You want to know if someone is trying to kill you…fast</u>. WWII/Korean War-era communications - primarily based on radio, printed and written messages, visual signals (lights, flags) were slow. Quicker system needed, especially as Cold War heated up.

- Need led to ARPANET, a Dept. of Defense funded computer communications project, in the late 1960s.

- Al Gore backed legislation that helped ARPANET expand into the internet in the 1980s and 1990s.

- Britain, France also leaders in early internet development efforts

CIVILIAN USE

Practical History of the INTERNET (in 5 minutes)

EARLY INTERNET
- 1971 EMAIL
- BULLETIN BOARDS 1978

WORLD WIDE WEB
- 1989 AOL
- 1994 Netscape
- 1994 YAHOO!
- 1995 Internet Explorer

COMMERCIAL WEB
- 1995 amazon.com
- 1995 ebay
- PayPal
- 1998 Google

DOTCOM BUST 2000

INTERACTIVE WEB
- Google maps 2005
- Blogger 2000
- WIKIPEDIA The Free Encyclopedia 2001
- iPod 2001
- YouTube 2005
- flickr BETA 2004
- Picasa 2001

SOCIAL NETWORKING
- 2007 iPhone
- twitter 2006
- facebook 2004
- Etsy 2005
- myspace.com 2003
- Linked in 2002

Global Web Traffic, 2011.

Internet-Map.net
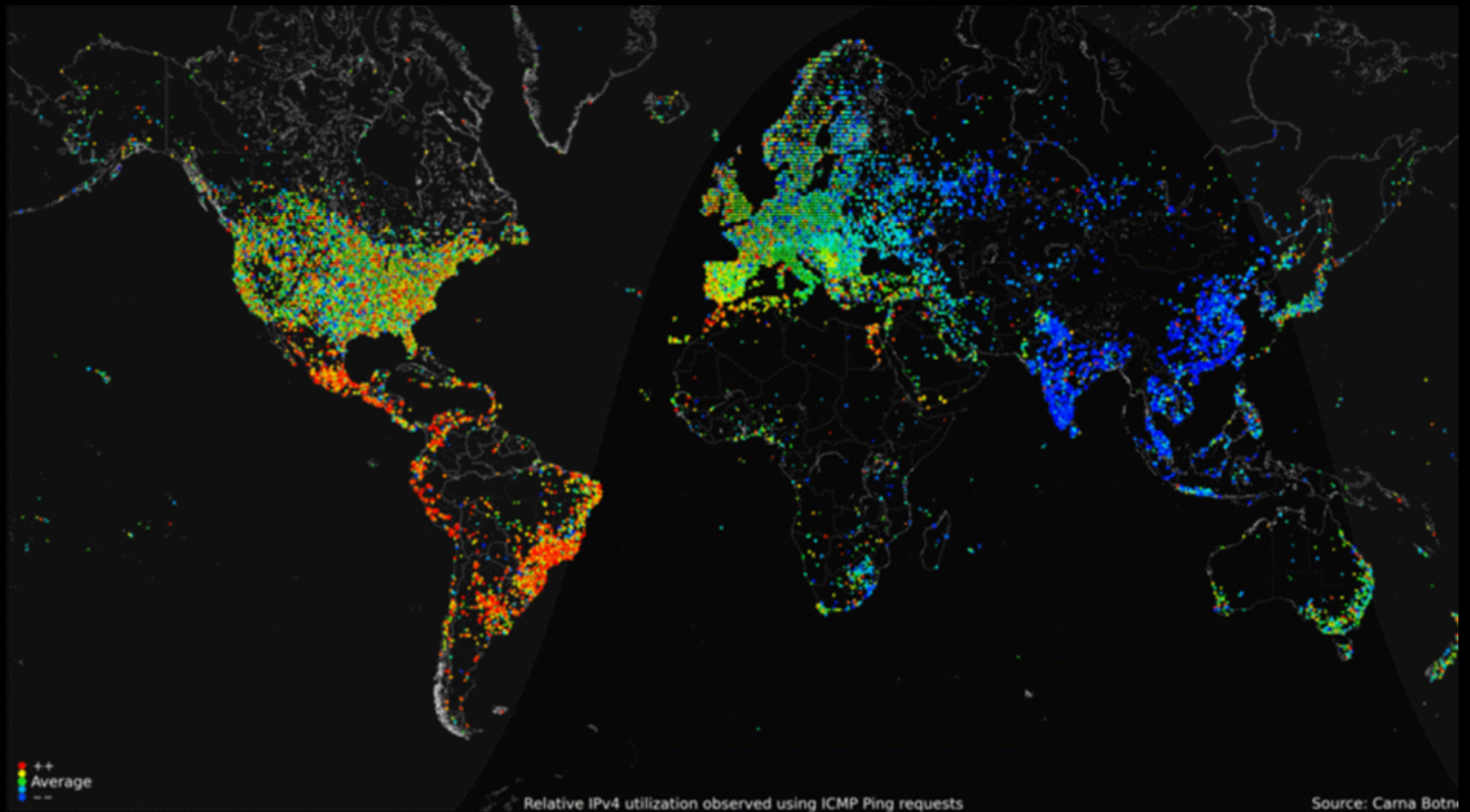
350,000 Websites Recorded
Colors Represent Countries (196 represented)
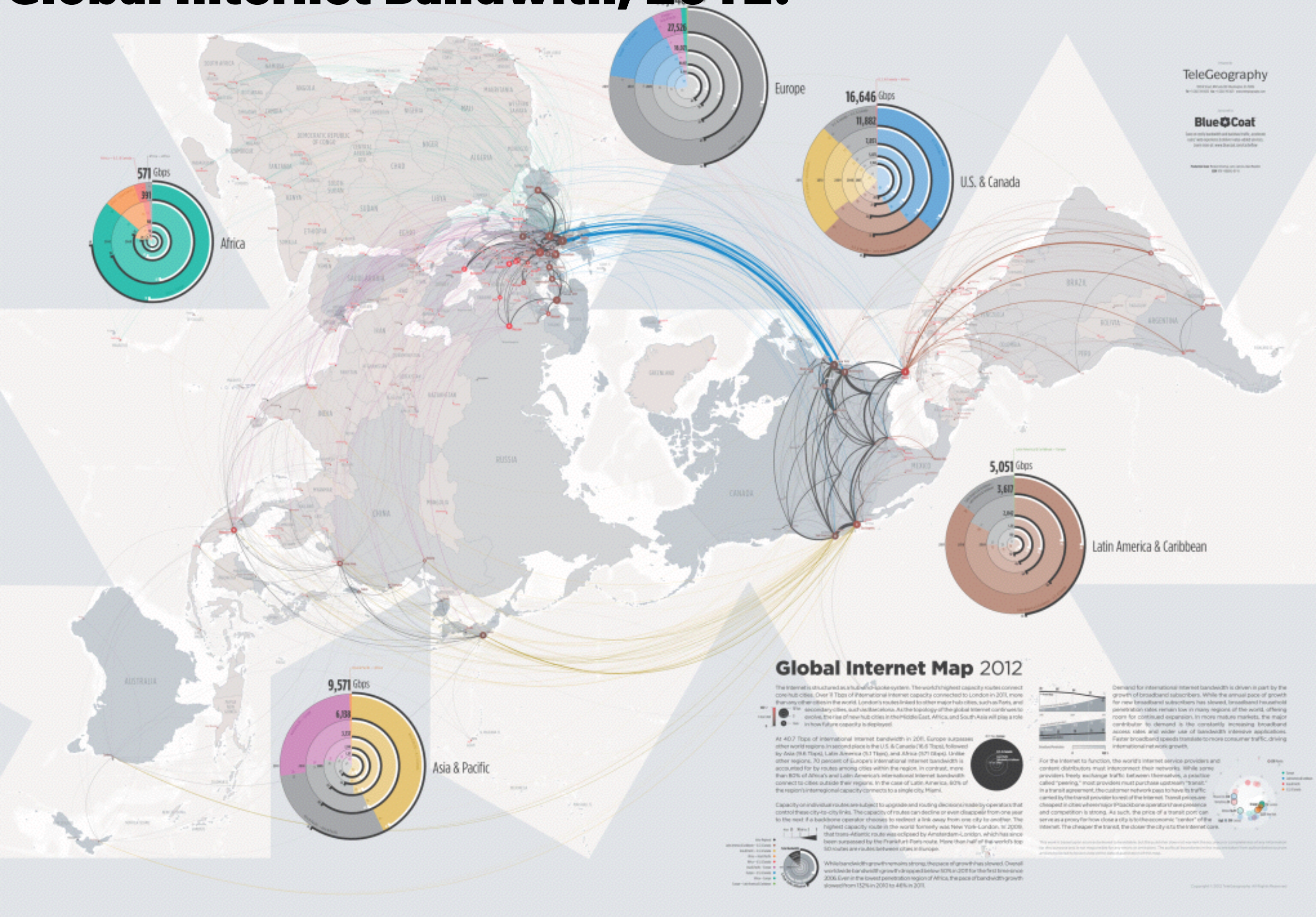Proximity of Bubbles = Connections Between Sites

IP ADDRESS MAP, 2013.

Relative IPv4 utilization observed using ICMP Ping requests

Source: Carna Botn

++
Average
--

Made Illegally by a Hacker
Pinged IP Addresses of Hundreds of Thousands of Devices

Global Internet Bandwith, 2012.

AMERICA

Somebody Is Cutting Internet Cables In California

July 1, 2015 · 1:49 PM ET

BRIAN NAYLOR

The FBI is investigating a string of recent physical attacks on Internet cables in the San Francisco Bay Area.

The most recent occurred early Tuesday morning, reports The Wall Street Journal, hitting "several cables in Livermore, Calif., shortly before 4:30 a.m. Pacific time and hadn't been repaired as of early Tuesday evening, according to several Internet service providers affected by the outage."

The FBI has asked for the public's help in finding those responsible for the attacks.

According to USA Today, there have been at least 11 attacks since a year ago. The newspaper adds:

> "FBI agents declined to specify how significantly the attack affected customers, citing the ongoing investigation. In Tuesday's attack, someone broke into an underground vault and cut three fiber-optic cables belonging to Colorado-based service providers Level 3 and Zayo.

> "The attacks date back to at least July 6, 2014, said FBI Special Agent Greg Wuthrich.

Internet Infrastructure is a national security concern.

US INTERNET INFRASTRUCTURE MAP, 2015

Developed by Univ. of Wisc./DHS, shows physical locations of fiber-optic cables crossing US with internet data.

The US from Space, NASA.

THIS IS WHAT WE KNOW ABOUT, BUT THERE'S A LOT WE DON'T

There are a multitude of uses of the internet that the public is generally unaware of:

- Military (Spying, Communications)
- Criminal (Drugs, Murder for Hire, Prostitution)
- Commercial (Corporate Spying)
- Dissent (Anonymous, Arab Spring, Black Lives Matter)