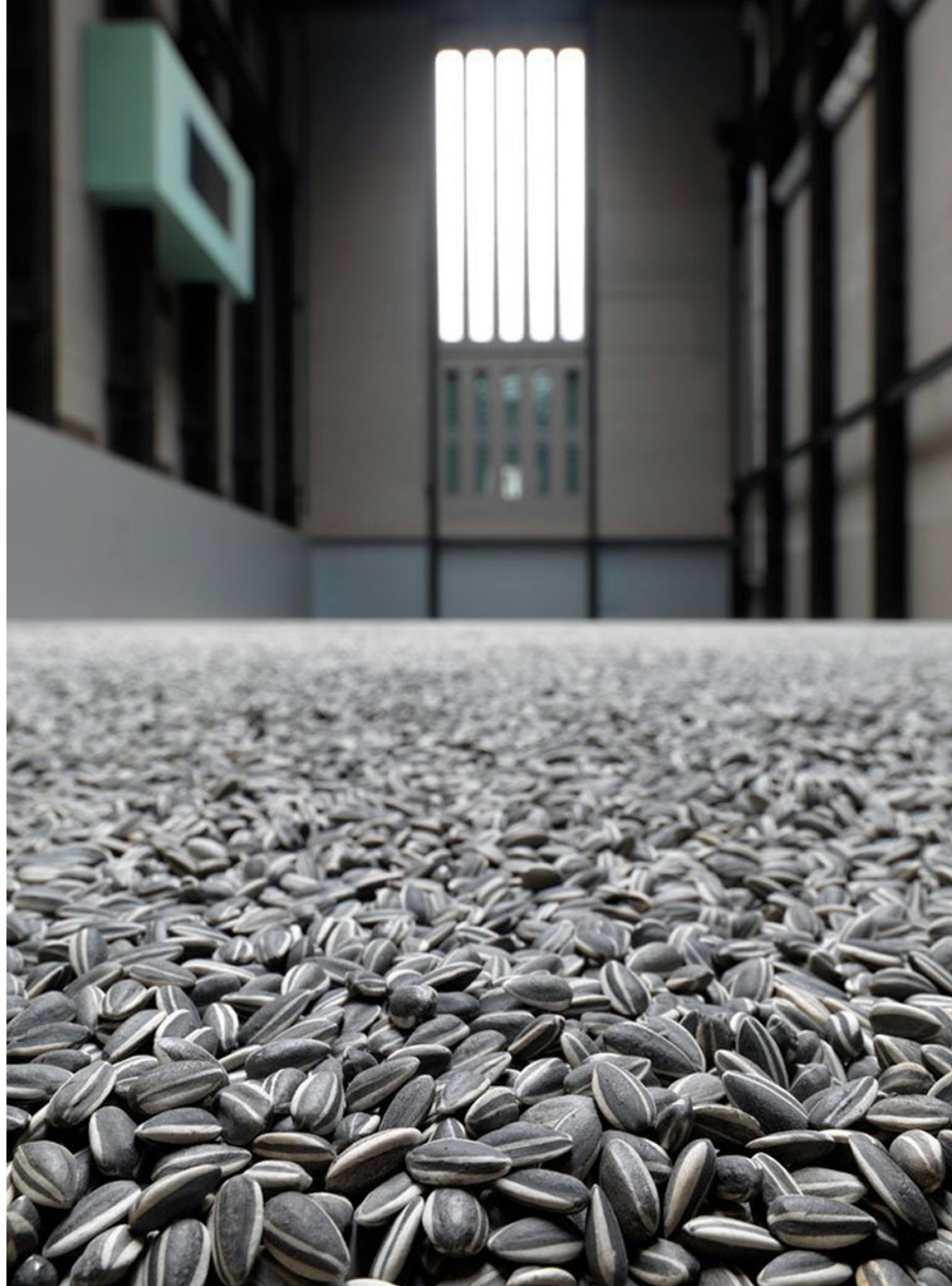# 11-Censorship

Abby Marsh and Weisi Dai

Feb 18, 2014

Sunflower Seeds 2010
Photo: Tate Photography
© Ai Weiwei

Today

- Intro to Censorship

- Internet Censorship

- Analysis of Censorship

- Usability Issues and Considerations

Quote

"Books are the ladders of human progress."

– Maxim Gorky, writer and activist

"... especially those burned."

– Lian Yue, blogger,
https://twitter.com/lianyue/status/12695413893

What is censorship?

The suppression of words, images, or ideas that are "offensive."

– American Civil Liberties Union

"Censorship reflects a society's lack of confidence in itself."

– Potter Stewart, U.S. Supreme Court Justice, *Ginzburg et al. v. United States* (1966)

FREEDOM OF THE PRESS WORLDWIDE IN 2014

http://rsf.org/index2014/en-index2014.php

Quote

"Freedom is a pretty strange thing. Once you've experienced it, it remains in your heart, and no one can take it away."

— Ai Weiwei, artist,

Ai Weiwei: Never Sorry (2012)

(Video)

Censorship

By medium:

- Books
- Films
- Music
- Maps
- Radio
- Internet

By motivation:

- Copyright restrictions
- Political
- Religion
- Self-censorship
- ...

Discussion: Overcoming Censorship

- Books

- Films

- Music

- Maps

- Radio

- Self-publishing

- Publishing in another country

- Special frequencies (e.g. VOA)

Internet Censorship

Technical:

- IP Blocking
- Content filtering
- Redirection
- Connection Throttling

Non-Technical:

- Take-down
- Licensing
- Censored Copycat

(Video)

Internet Censorship in the U.S.

The PROTECT IP Act, or PIPA

The Stop Online Piracy Act, or SOPA

- Would grant new powers to law enforcement, allowing courts to shut down a whole domain

- UGC websites would need to monitor content

- PIPA & SOPA would not stop piracy

What can the influence be?

Internet Censorship in Iran

- Methods, from Aryan et al. (FOCI '13):
    - Broadband speed limitations
    - DNS hijacking
    - HTTP header (host and keyword) filtering
    - Connection throttling on SSH
- Physical threats
- Centralized Nature

Internet Censorship in China

Most advanced:

- IP, Keyword, DNS poisoning

- Deep packet inspection

- Active probes against Tor bridges (Tor bug #4185) Winter and Lindskog (FOCI '12)

- Self-censorship

(Video)
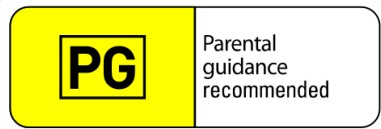
The Great Firewall's Laws (2007)

1. Any user-generated content websites are to be blocked.

2. Any blocked website will have a domestic clone.

3. Any website that has not been blocked is not good enough.

> – Dahui Feng (Fenng), engineer,
> *http://dbanotes.net/review/gfw_rule.html*

Censorship, Extended

- People outside the area start to self-censor

- Examples:

    - Mainland China's pressure on media in Hong Kong and Taiwan

    - "Bloomberg News has been accused of quashing a story that alleges financial ties between China's richest man and relatives of top Chinese Communist party officials because of fears that the government would prevent it from operating in China." (FT.com)

Overcoming Internet Censorship

- Use circumvention tools:
  - Tor, or the Tor Browser Bundle https://www.torproject.org/
  - SecureChat, or Off-the-Record (OTR) messaging https://securechat.herokuapp.com/ https://otr.cypherpunks.ca/
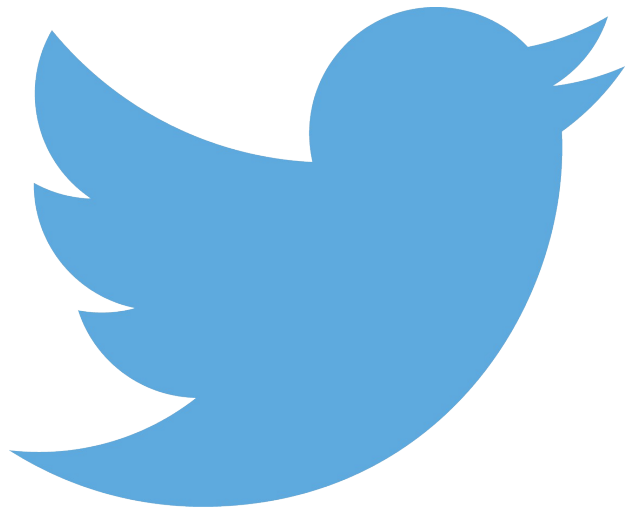- Help eliminating information barriers
  - Language
  - Education
  - ...

Tor (anonymity network)

- Tor Implements *Onion Routing*, or layers of encryption

- Virtual circuit of random relays

A Censorship-Resistant System

- Twitter API provides access to almost all features of the website

- Applications can be configured to access Twitter through an API proxy

- API Proxies are easy and cheap to set up

The Battle

- Proxies

- Tor

- VPN

- Encrypted proxies

- Tor bridges

- Obfuscated VPN

- ...

Why Censorship Works

How many of you know how to ...

- … configure a browser proxy?
- … use an encrypted proxy?
- … identify the source of a network failure?
- … troubleshoot a VPN issue?

Censorship never aims to block *everyone* from accessing information they want.

What We Can Do

- Take action: speak out loud
- Run Tor relays, exit nodes, and bridges
- Share your connection with people in censored areas (Lantern, uProxy, ...)
- Help non-technical people
- ...

CC BY EFF

Conclusions

- Censorship harms freedom of expression, which is necessary for many other aspects of a free society

- Freedom on the Internet is related to other areas of freedom

- Anonymization provides increased safety for dissidents, but it cannot guarantee safety