# acarvin

**LeilZahra** I think the number tonight is the smallest so far, and tonite is the calmest. The square is very quiet. #tahrir
1 minute ago via HootSuite
Retweeted by acarvin

@princeofthenile Uh, Bahrain has been the focus of my entire day of tweeting. And we did a story on the radio tonight. Not getting ignored.
2 minutes ago via TweetDeck in reply to princeofthenile

@epollaert Yes, I do. And she said she understands why I need to do it. Sorry you don't.
3 minutes ago via TweetDeck in reply to epollaert

@AlBinali17 seven police killed or seven protesters? Saw the dead protesters, not the police.
4 minutes ago via TweetDeck in reply to AlBinali17

@alphaleah Yes.
6 minutes ago via TweetDeck in reply to alphaleah

@alphaleah but who was he and who ran him over? I've heard both sides blame the other.
7 minutes ago via TweetDeck in reply to alphaleah

@AngelaConner: We've got some great people there; my team too. But trust me, it is. Very few places are accessible to reporters.
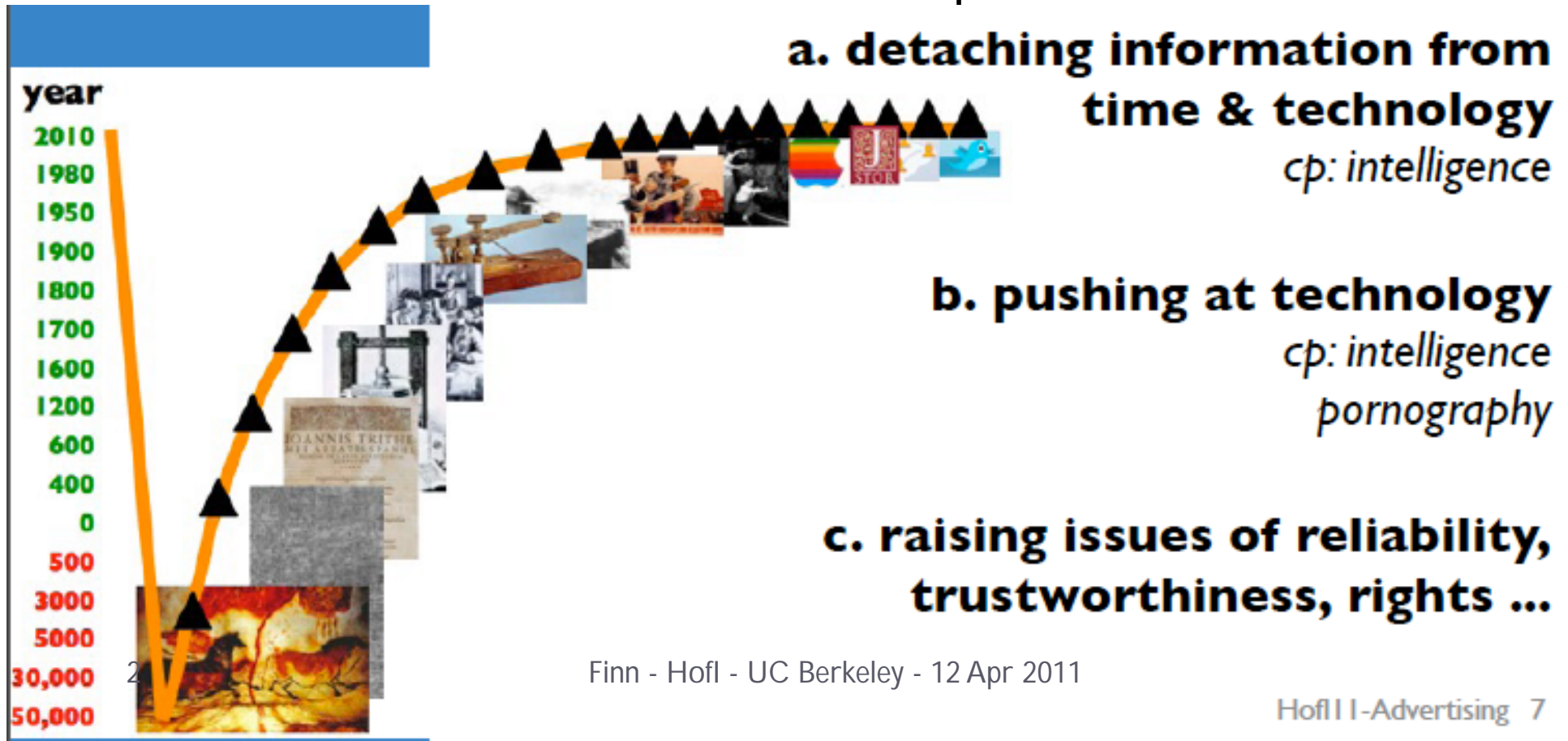8 minutes ago via TweetDeck in reply to AngelaConner

# Information and crisis

Megan Finn

Prepared for History of Information 12 April 2011

# Today

▸ Understanding Infrastructure and the post office

▸ You: on Twitter in Egypt

▸ Infrastructure, California and earthquakes



**a. detaching information from time & technology**
*cp: intelligence*

**b. pushing at technology**
*cp: intelligence*
*pornography*

**c. raising issues of reliability, trustworthiness, rights ...**

# Infrastructure Themes

- Monopolistic
- Private or government
- Profitability
- Surveillance

## why advertising?

**supporting information infrastructure**

## telegraph neutrality

"it is true, give a convincing proof of your power over the press; but surely this is not needed. The newspapers of California, which hardly dare notice the incorporation of a rival company, and dare not endorse a public measure of which you disapprove, are subservient enough already ... you could destroy a private business ... more completely than earthquake or conflagration could do the work the Telegraph, which has become a necessity of individual and social life, is not merely private property ... it is a great public trust to be administered for the benefit of the whole community"

Henry George, 1869

## a suspect relationship

"In 1993, 1.5% of web servers were on .com domains. This number grew to over 60% in 1997. At the same time, search engines have migrated from the academic domain to the commercial. Up until now most search engine development has gone on at companies with little publication of technical details. **This causes search engine technology to remain largely a black art and to be advertising oriented.** ... we have a strong goal to push more development and understanding into the academic realm."

# The War Machine and the Love Machine

▸ "Everything in this new warfare becomes a question of time won by man over the fatal projectiles toward which his path throws him… We have to face the facts: *speed is war, the last war*"

  ▸ Paul Virilio, *Speed and Politics.* 1977

▸ "Electric circuitry has overthrown the regime of 'time' and 'space' and pours upon us instantly and continuously concerns of all other men…'Time' has ceased, 'space' has vanished. **We now live in a** *global village . . . a simultaneous happening.*"

  ▸ *Marshall Mcluhan et al., Medium is the Massege, 1967*

# Paradigms?

▸ Technological determinism

telegraphy

broadcast

Photography

John Gast
American Progress
1872
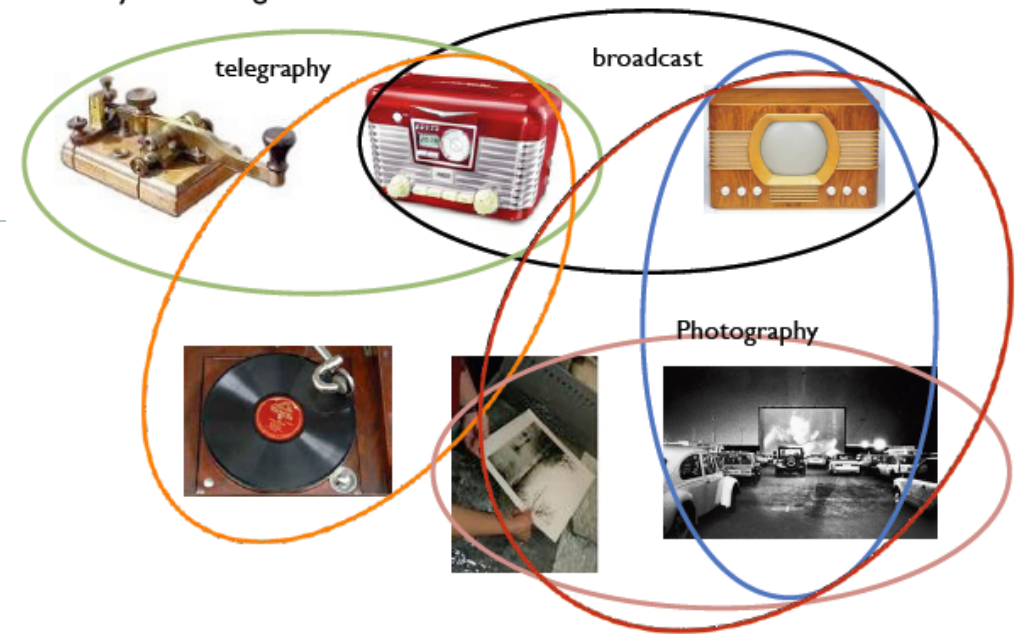
## assessing a revolution:
what happened, what came before,
what came after, who was involved
what happened elsewhere
what was necessary, what sufficient, what
incidental

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# Information infrastructure

**The postal system: information infrastructure without "technology"?**

# Some bold statements

- "One of the most effective elements of civilization"?
  - Francis Lieber, *Encyclopedia Americana,* 1932

- "mighty arm of civil government"
  - *New York Times,* 1852

- "How society in the nineteenth century could exist without mail routes and the regular delivery of letters, it is impossible to conceive."
  - James Holbrock, *My Years Amongst the Mailbags.* 1955
  - Quoted from: John, *Spreading the News,* 1995

# Infrastructure:
## "Pervasive enabling resources"

▶ **So what constitutes infrastructure? Infrastructure has the following qualities:**

   ▶ *modular increments*

   ▶ *Embedded*

   ▶ *Transparent*

   ▶ *Reach*

   ▶ *Learned*

   ▶ *Practice*

   ▶ *installed base*

   ▶ from Jackson et al quoting Star and Ruhleder–

# Circulation of mails



TRA
B
In 17
British Dominions in America wa
packet-boats between Falmouth and
York, sailing from the former the first
day, from the latter the second Satui
every month, they were,
Halifax, Capt. John Bolderson.
Duke of Cumberland, Capt. John Mitchell.
Lord Hyde, Capt. Norris Goddard.
Harriot, Capt. Geo. Oake.
Mercury, Capt. Rob. Dillon.
The postage between London, and any port
within the British Dominions in America, ol
a single letter (i.e., one sheet of paper) wa:
12d., which covered inland conveyance in the
Dominions up to 60 English miles; from 60 to
100 miles, 6d.; 100 to 200 miles, 8d., not pas-
sing through a chief office; and so in pro-
portion increasing two-pence for any distance
above every 100 miles. All double, treble,
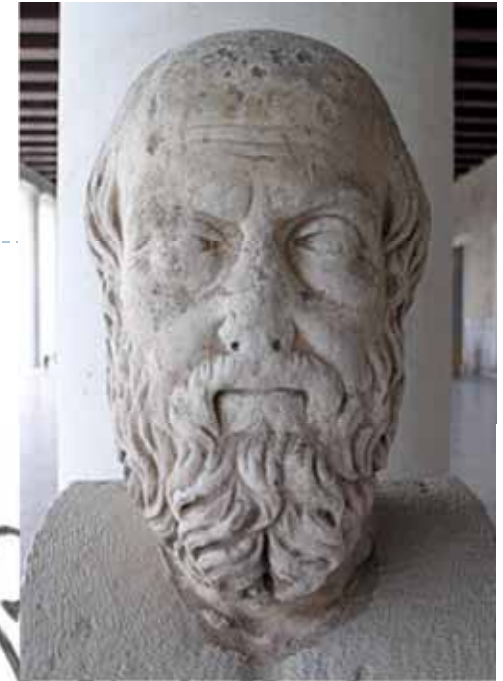
# Information infrastructure: Postal system

- "To establish Post Offices and Post Roads;"
  - U.S. Constitution - Article 1 Section 8
- "The United States in Congress assembled shall also have the sole and exclusive right and power of … establishing or regulating post offices from one State to another, throughout all the United States, and exacting such postage on the papers passing through the same as may be requisite to defray the expenses of the said office …"
  - Article 9, "The Articles of Confederation" (Agreed to by Congress November 15, 1777; ratified and in force, March 1, 1781.)

# Modular increments

▶ *Fixed and changed in **modular increments**, through complex processes of negotiation and mutual adjustment with adjacent systems, structures, and practices*

▶ Post Office Act, 1792:

  ▶ 1. newspapers were subsidized

  ▶ 2. public officials are not supposed to spy on the mail

  ▶ 3. facilitated the expansion of the postal network

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# Reach of the post office

▸ *Defined by its **reach** beyond particular spatial or temporal locations;*

▸ By 1840:

  ▸ ~4 of every 5 Federal employees worked for the post office

  ▸ 13,486 post offices (75 in 1790)

    ▸ 1,087 people served by each office (43,084 per office in 1790)

    ▸ 1 office every 61.4 square miles (1 per 3492.7 square miles in 1790)

▸ 500,000 newspapers sent through the mail in 1790

▸ 39,000,000 newspapers sent through the mail in 1840

  ▸ 2.7 newspapers per capita

  ▸ from: Headrick, *When Information Came of Age,* 2000.

# Embedded

- ***Embedded*** *in other structures, social arrangements, and technologies*

- "… in the very process of incorporating the the citizenry into American public life, postal policy marginalized a number of groups – in particular, women and blacks – and in this way identified the public sphere with free white men…"

  - John, *Spreading the News*, 1995.

# Transparent

- ***Transparent*** *(and largely invisible) once established, "reappearing" only at moments of upheaval or breakdown;*

- "…while his fear of the use of new communication technologies may seem irrational, it may also be viewed as a legitimate response to fears of modernity and the attendant further ebbing of the slaveholders' ability to control everything and everyone around them."

  - Jennifer R. Mercieca, "The Culture of Honor: How Slaveholders Responded to the Abolitionist Mail Crisis of 1835,"

# Another *modular increment.*

▸ **1845 and 1851:**
  ▸ Lower the rates for letters
  ▸ Pay by weight instead of by the sheet

▸ **1854: prepayment only**

# Practice

▶ *Deeply linked with conventions of **practice** and other forms of routinized social action;*

▶ "our pervasive expectations of complete contact, of boundless accessibility, actually link us back to the cultural moment when ordinary Americans first experience the mail in similar terms."

  ▶ Addressibility
  ▶ Dead Letter Office
  ▶ Junk mail
  ▶ Anonymity
  ▶ Henkin, *The Postal Age.* 2006



[Black Valentines (London, c.1850)] Source: Monash University Library http://www.lib.monash.edu.au/ exhibitions/recent-acquisitions4/ virtual/photos/photo6.html

# Learned

▸ ***Learned*** *as a part of membership within particular professional, social, or cultural communities;*

▸ "An interval of two weeks elapsing for the arrival of one mail to another, creates an anxiety to hear form home that can scarcely be comprehended by other than residents of California" Scene at the San Francisco Post Office
BANC PIC 1963.002:0137--A

The internet's undersea world

# Installed base

▸ *Built on, shaped and constrained by its relationship to an already **installed base**;*

http://www.postalmuseum.si.edu/duty/dangersofthetrail.html

# Ongoing questions

Who is controlling the infrastructure?

Government or private corporations?

"natural" monopoly of infrastructure?

What are the practices that are part of the infrastructure?

Change in practice without technical change?

Point to point or broadcast?

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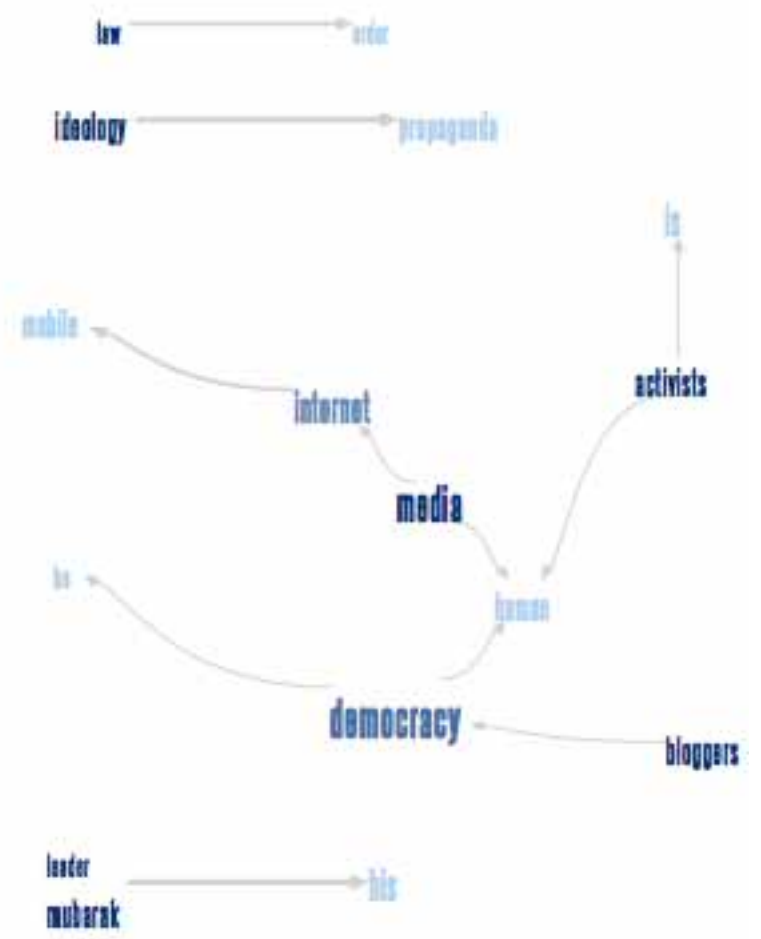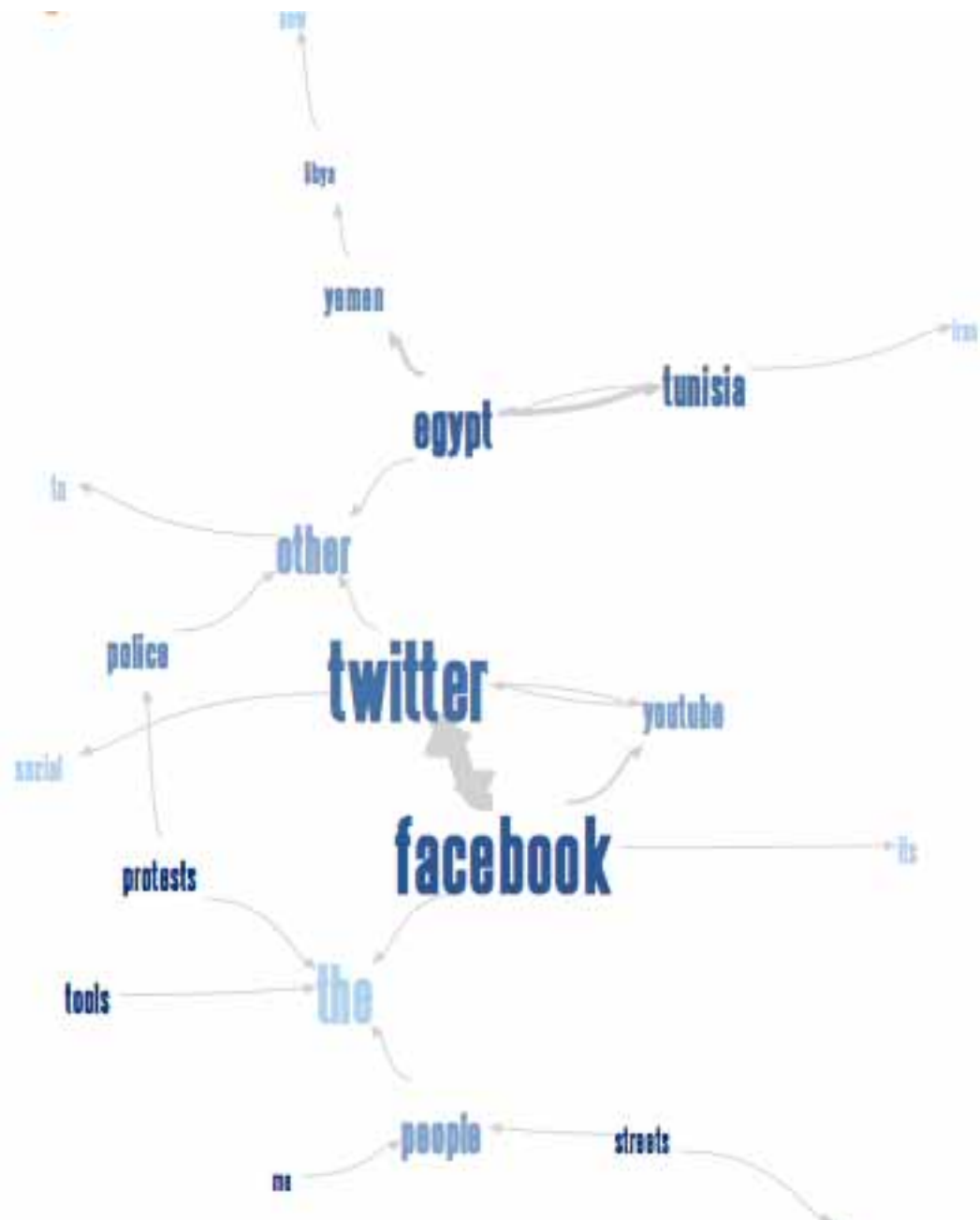
**Motion:** Twitter was necessary for the ousting of Mubarak

# Twitter, Egypt and the role of infrastructure in social movements

▸ **Debate! The rules:**

2 Teams – one team arguing for the motion, one arguing against.

Audience votes (for, against, undecided).

Three introductions for each team. We will alternate between the teams. Introductions should be about two minutes each.

There will be fifteen minutes for moderated questions.

Three closing statements for each team. . We will alternate between teams. Concluding remarks should be about two minutes each.

Audience votes (for, against, undecided).

The team with the greatest GAIN in number of supporters will be declared victor and the first ever champions of the History of Information current events debate.

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# Conclusion:
# 1868 Hayward Fault Earthquake

Overview of Information infrastructure

Overview of Hayward Fault Earthquake

How was the telegraph used?

Rumors

Business

Looking for loved ones

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