Information and crisis

Megan Finn
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Today

- Understanding Infrastructure and the post office
- You: on Twitter in Egypt
- Infrastructure, California and earthquakes
Infrastructure Themes

- Monopolistic
- Private or government
- Profitability
- Surveillance

why advertising?

supporting information infrastructure

"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 Massage, 1967
Paradigms?

- Technological determinism

assessing a revolution:
what happened, what came before, what came after, who was involved what happened elsewhere what was necessary, what sufficient, what incidental
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

In 17...

British Dominions in America, was packet-boats between Falmouth and York, sailing from the former for the first day, from the latter the second Saturday every month, they were,

Halifax, Capt. John Bolderson.
Lord Hyde, Capt. Norris Goddard.

The postage between London, and any port within the British Dominions in America, of a single letter (i.e., one sheet of paper) was 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 passing through a chief office; and so in proportion 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
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

**Embedded**

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

- “... in the very process of incorporating 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...”

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.”

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

Source: Monash University Library

[Black Valentines (London, c.1850)]
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 from home that can scarcely be comprehended by other than residents of California”
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?
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.
voice to the turmoil in the Middle East via Twitter. For the nearly 40,000 followers of his memeburn.com feed, Andy Carvin is providing a unique window on real-time events in Tunisia, Yemen, Libya, and now Syria. Carvin’s account, , is a steady stream of messages from the anchor coverage of the Middle East using Twitter, in the same way that you might see a broader users and editors assisting me I have my user who claimed a maternity hospital that time mine of content. A lot of Egyptians were on Twitter but Yemen and Libya have been more challenging. ghazi, was killed in a firefight on March 19, Twitter is Carvin’s platform, but it is not his only new medium. Mainly what I’m trying to do is have my feed essentially become an archive of the history of using a range of different media – including Twitter, the government blocked Facebook and online, political leaders and others, including Twitter, spoke out against the violence and freedoms. down couldn’t keep the news from flowing Twitter and Facebook users found ways to work around blocked instantaneously, as reporters took to Twitter to share 140-character updates and personal communicate information. Why John McCain used Twitter to take on Hosni Mubarak (video) in talking about Twitter, he noted, We have 1.7 million followers on Twitter in his Senate office. After a recent trip to the Middle East, he said it was not targeting Facebook and Twitter to remove references to Facebook and Twitter, introduced during the editing process, and social networking platforms such as Twitter, Facebook and YouTube that expose or threaten with social media such as Facebook and Twitter, has played a huge role forcing the military to plan Z (turn off the Internet). Egyptian police use Facebook and Twitter to track down protesters’ names before rounding them up, our names from Facebook postings and Twitter. Some have not been heard of since. Gabriella Miller was successfully used, like Facebook, YouTube and Twitter to help drive his 2008 presidential campaign, but in Tahrir Square in Cairo last Saturday.
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