Will text decline?

Marti A. Hearst
UC Berkeley

Panel on “Next Generation Information Experiences”
Disclaimer:

In the spirit of the panel’s assigned topic, this is a forecast based on what I observe of current trends.
Claim:

Enabled by technology, the role of written language is going to fundamentally change, and probably decline, in U.S. culture.
Observed Information Consumption Preferences

- Novels → Movies
- Marketing text → Marketing podcasts
- Textbooks → Video lectures
- Web news text → Web news videos
- Memos → Powerpoint
- Blogs → Pinterest
Picture Stories

Food Studies

What Society Thinks I Do
What My Friends Think I Do
What My Mom Thinks I Do
What my Professors Think I Do
What I Think I Do
What I actually Do
Video Thank You Notes

http://www.khanacademy.org/new-and-noteworthy/v/thank-you-khan-academy
Dialogue Combining Text, Audio and Images

I'm looking for a telephone number for veterinarians named "Claremont" near your current location in Berkeley...

What time is it?

It's 2:26 pm on December 31, 2010.

What's the phone number for Claremont vet

I'm looking for a telephone number for veterinarians named "Claremont" near your current location in Berkeley...

The telephone number for Claremont Veterinary Hospital on 5331 College Ave in Oakland is 510-652-5835.

Campus Veterinary Clinic, a veterinarian, is at 1720 Shattuck Ave, Berkeley

The telephone number for Claremont Veterinary Hospital on 5331 College Ave in Oakland is 510-652-5835.

You didn't specify a location, so I looked near here.
Interpreting Written vs Spoken Language

**Advantages**

- Reproducible / Sharable
- Scannable
- 2D Layout (Tables, Lists)
- Computer Processible

**Disadvantages**

- Difficult to learn
- Effortful
- No prosodic cues
- Not “eyes-free”

And don’t forget ...
Written Language Loses some of its Advantages to Technology

- Visual Channel: Photos, Animations, Video
- Permanence: Advanced Audio Tools
Writing is becoming more like spoken language ...
“It appeared that the narrative he had promised to read us really required for a proper intelligence a few words of prologue. Let me say here distinctly, to have done with it, that this narrative, from an exact transcript of my own made much later, is what I shall presently give. Poor Douglas, before his death—when it was in sight—committed to me the manuscript that reached him on the third of these days and that, on the same spot, with immense effect, he began to read to our hushed little circle on the night of the fourth. “

HENRY JAMES, TURN OF THE SCREW
“My wife and I had called on Miss Stein, and she and the friend who lived with her had been very cordial and friendly and we had loved the big studio with the great paintings. It was like one of the best rooms in the finest museum except there was a big fireplace and it was warm and comfortable and they gave you good things to eat and tea and natural distilled liqueurs made from purple plums, yellow plums or wild raspberries.”

ERNEST HEMINGWAY, A MOVABLE FEAST
“Like it if you like :D http://fb.me/HNjmesEP”

JONATHAN FRANZEN, TWITTER
Colloquialism in Contemporary English

“In the course of the 19th and 20th centuries, popular written registers like letters, fiction, and essays have reversed their direction of change and evolved to become more similar to spoken registers...”

Text will not disappear, but will be shorter, and play more of a supporting role ...
Forecast: The Future Roles of Text

**Continue**
- Signage
- Markings / Landmarks
- Very brief exposition
- Helper text
- Legal / Analytic

**Decreased?**
- Stories / Narrative
- Expository
- Interpersonal communication
- Instructions
- Education
So ...what are the research questions?
Spoken Web (a.k.a World Wide Telecom Web or Telecom)
technology to enable the illiterate and the underprivileged to access the web.

Avaaj Otalo — A Field Study of an Interactive Voice Forum for Small Farmers in Rural India

Neil Patel1, Deepti Chittamuru2, Anupam Jain3, Paresh Dave4, Tapan S. Parikh2

1Stanford University HCI Group
Computer Science, Stanford, CA 94025
neilp@cs.stanford.edu

2UC Berkeley School of Information
Berkeley, CA 94720
(deepti, parikh)@ischool.berkeley.edu

3IBM India Research Laboratory
New Delhi, India
anupamja@in.ibm.com

4Development Support Center
Ahmedabad, Gujarat, India
pdave68@gmail.com

ABSTRACT
In this paper we present the results of a field study of Avaaj Otalo (literally, “voice stoop”), an interactive voice application for small-scale farmers in Gujarat, India. Through usage data and interviews, we describe how 51 farmers used the system over a seven month pilot deployment. The most popular feature of Avaaj Otalo was a forum for asking questions and browsing others’ questions and responses on a range of agricultural topics. The forum developed into a lively social space with the emergence of norms, persistent moderation, and a desire for both structured interaction with institutionally sanctioned authorities and open discussion with peers. For all 51 users this was the first experience participating in an online community of any sort.

Figure 1. A farmer in Gujarat, India, accessing agricultural information through Avaaj Otalo.
How Well do Audio Texts Work?

Chart 1
Ways of using the AB for learning (%)

- Audio-books only
- Listening and reading simultaneously
- Listening first and afterwards reading or vice versa

n=34
LD Students
- Audio-books only: 40%
- Listening and reading simultaneously: 60%
- Listening first and afterwards reading or vice versa: 0%

n=363
Non LD students
- Audio-books only: 20%
- Listening and reading simultaneously: 80%
- Listening first and afterwards reading or vice versa: 0%

Chart 5
The contribution of learning by listening to the comprehension of LD and of non LD students (%)

LD students
- high/very high: 60%
- middling: 20%
- low/very low: 20%

n=35

Non LD students
- high/very high: 50%
- middling: 30%
- low/very low: 20%

n=366
Intriguing Research Challenges

Tools to Improve Reading Fluency
- Tools to intelligently pause audio as I read it so I can reflect (my favorite)

Tools to Author with Images
- Auto-Suggest Illustrations for my Powerpoint Presentation

Tools to Tame Audio
- Speech Recognition / Generation
- Scanning
- Note taking

Tools to Tame Video
- Editing
- Searching
Research Question:

How to better gather data on how much information of each type is being used? And by whom / how many people?
Further Reading (one in audio too)

Orality and Literacy, Walter Ong, 1982

Proust and the Squid, Maryanne Wolf, 2008
Parting Question:

If I’m right, should we work to promote text or let new forms dominate?

If I’m wrong, should we bring text back into the discussion of new media?