EXPERIENCE-INFUSED APPLICATIONS

USING PERSONAL ARCHIVES

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http://mobisocial.stanford.edu/muse

And:

ABHINAY NAGPAL
CINDY CHANG
DIANA MACLEAN
MONICA S. LAM
PETER CHAN
JEFF HEER
MONDAY 14th JANUARY 1884.

Januári ta. 14 Póósh Krúṣṇa 2 Chándrávar[Pa. 28-8.4.14]

Prof 1382hándikar gave letters through Patel of Peterson, for selling 500 flax to Holmen.

Saw all my friends at; in Bus and at night.

Rewards given?

1. Pandé.
2. Zákamán.
3. Gámi.
4. Hánáji.
5. Khándar.
6. Hari the boy.

4-4

Total 9-5-14

3-11

99-9

11-5-6

88-3-6

I owed 50/- for books about Rs. 45.

When I went Monday by 9.25

Rs 82-12.
Pocket Diary

1917

MADRAS
G. MURTHY & CO.
PERUMPU RU CHETTY ST.
Why Email Archives?

- 1.8B+ email users
- A consistently maintained life-log (for many)
- Often used for the record
- Automatic capture (at least sent email)
- Federated architecture, open formats
- Lightweight
- Text-based, readable over the long term
(Original) Goal:

Make **browsing** your own long-term email archive **convenient** and **fun**, for personal memories, self-reflection, telling stories.
Memories USing Email

• Runs on user’s own machine
• Browser based UI
• Multiple online accounts or stored files
• Data cleaning: Deduplication, entity resolution, bad headers, ...

• Cue generation
Rapid skimming, exploratory browsing

Facets

Groups
ashuvk+2 (91)

People
S Hangal (94)
Josh Liptzin (71)
Rakshit Kumar (69)
ashtush (67)
Ashutosh Kulk... (15)
More

Folder: /Users/hangal/Library/Thunderbird/Profiles/72xvslw.default/Mail/Local Folders/gmail-sent
Date: November 30, 2007 8:31am
From: Sudheendra Hangal <hangal@cs.stanford.edu>
To: Josh Liptzin <jpl@stanford.edu>, Rakshit Kumar <rakshit@stanford.edu>, ashtush <ashtush@stanford.edu>
Group: ashuvk+2
Subject: new16

just uploaded new16 to the wiki which adds a gesture trail, fades after 1 sec.
also added visual feedback in auto fwd/back mode (<< or >> is displayed next to page # text).
pls test it if you get a chance, i haven't tested it much, but would like to demo it in class.

[s]
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Sudheendra Hangal
People will use MUSE to...

Reminisce about the past
Add color to flashbulb memories
Summarize work progress
Identify personal email when leaving a job
Retrieve all attachments
Feel a “renewed sense of confidence”

(About 5,000 downloads)

* c.f. Sellen and Whittaker. CACM May 2010
Sample comments

“Wow! I had forgotten how nice one friend was in offering me a temporary place to stay (I ended up staying elsewhere) but she has been a little grumpy lately but I can forgive that a bit now that I remember that incident.”

“Wow, this offers a pretty complete history of my first son’s milestones. There is no other record of this. I’ve been trying to remember his milestones to compare with my other son’s.”

“I would like to remind my dad of the advice he gave me when I came to the United States for the first time.”
“Three years later, I am slowly recovering from a disfiguring and near-fatal brain injury (R. frontal and temporal lobes, mostly) which has severely challenged me in several ways... The doctors tell me that if my brain was a house, the room my “self” used to live in is gone. You might imagine it has been very challenging to try to rebuild some semblance of my life, post trauma. I’ve been using Muse to try and figure out who I was and who was who to me in my past, and I want you to know its surprisingly useful to me.”
“Experience-Infused” Applications
Slanting your search

A search engine per user, populated using “social chatter”


Search results restricted to these domains
Results

![Bar chart showing comparison of different categories: Information, Transaction, Navigation, and All. The chart compares Pers. Google, Twitter, and Email.]
Findings

• Eliminates web spam

• Good at disambiguating queries

• Better privacy: only domains revealed

• Only a few thousands domains per user
What might this mean?

• Personal search engines
• Better privacy
• “Follow” people implicitly
  – Friends… Romans… Countrymen…
• Remember recommendations
• Deeper semantic analysis
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form S-1
REGISTRATION STATEMENT
Under
The Securities Act of 1933

Facebook, Inc.
(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

7370
(Primary Standard Industrial
Classification Code Number)

Facebook, Inc.
1601 Willow Road
Menlo Park, California 94025
(650) 308-7300

(Address, including zip code, and telephone number; including area code, of Registrant’s principal executive offices)

David A. Ebersman
Chief Financial Officer
Facebook, Inc.
1601 Willow Road
Menlo Park, California 94025
(650) 308-7300

(Name, address, including zip code, and telephone number, including area code, of agent for service)
Croatia

As European Union Beckons, Allure Eades for Wary

Rescue Effort Suspended as Cruise Ship Shifts on Rocks

Ship Salvage Workers Roll Up Their Sleeves

Young, in Love and Sharing Everything, Including a Password

Few Cities Have Regained Jobs They Lost, Report Finds

Affirmative-Action Foe Is Facing Allegations of Financial Misdeeds

Protest on Web Uses Shutdown to Take On Two Piracy Bills

In Tech, Starting Up by Failing

DealBook: Another Bitter Divorce for Perelman

Op-Ed Columnist: Trust, but Verify

Editorial: Preaching Division in South Carolina

Op-Ed Columnist: Hunting, Dear Sir? Delighted!

Sorcerer’s Apprentice Hosts a Dinner

Melissa Clark brings the avant-garde recipes of the cookbook “Modernist Cuisine” to her home kitchen.

Several high-profile chefs in the United States are asking diners to get their hands dirty.

Videos: Simple Sous Vide Salmon, Seared Steak, Gin-Infused Celery

Slide Show: ‘Modernist’ Dishes for a Dinner Party

REAL ESTATE AUTOS JOBS ALL CLASSIFIEDS

LIVING IN | ESSEX FELLS, N.J.
Holding Fast to Old-Fashioned Ways

With 2,113 residents nestled into 1.33 square miles of hilly, tree-lined terrain, Essex Fells is the smallest community in Essex County and also one of its most desirable.

New Green Condominiums in Downtown Manhattan
The Experience-Infused Browser
The Experience-Infused Browser

Your Digital Archive
HOW IT WORKS

score(t) = w(\text{Type}_t) \times |\{d|t \in d, d \in D\}|
February 15
Opening Session, 8h30 - 9h00

Keynote Address, 9h00 - 10h00
- Honest Signals: How social interactions shape human behavior
  Alex Pentland (MIT Human Dynamics Lab)

Session 1: Mobile Interfaces and Novel Interaction, 10h30 - 12h30
- Probabilistic Painting: Target Prediction via Inverse Optimal Control
  Brian Ziegler, Arind Dey, Drew Bagwell
- Towards Online Adaptation and Personalization of Key-Target Reaching for Mobile Devices
  Tyler Balaban, Joyce Chai
- Multimodal Interaction Patterns in Mobile Local Search
  Patrick Enzen, Michael Johnston
- In-Vehicle Driver Recognition Based on Hand ECG Signals
  Hugo Silva, André Lourenço, Ana Fred
- Performance Comparisons of Phrase Sets and Presentation Styles for Text Entry Evaluations
  Per Olo Kristensen, Keith Vlachou
- Towards Providing Just-In-Time Vocabulary Support for Assistive and Augmentative Communication
  Carla Drevins, Epp, Justin Onderdij, Shinnu Wu, Kären Mottet, Ronald M. Barrer
- Mobile Testing: Can Post-ASR Correction Solve the Issues? An Experimental Study on Gain vs. Costs
  Michael Field, Sepruty Montazer, Dierck Kukic, Farbod Farhang, Christian Müller

Session 2: Learning with Technology, 14h00 - 16h30
- Style by Demonstration: Teaching Interactive Movement Style to Robots
  James Young, Kentaro Iwai, Takeo Igarashi, Ehud Sharlin
- PhysicsBook: A Sketch-based Interface for Animating Physics Diagrams
  Satman Cheema, Joseph LaVale
- A Tool To Support Learning With Clinical Cases Based On Concept Maps And Medical Entity Recognition
  Manuel de la Villa, Fernando Aparicio, Manuel J. Marina, Manuel de Buenaga
- PedConnect: An Intelligent Assistant for Teacher Social Networking
  Jinho Kim, Yu-Chen Chang, Sen Cai, Siddhath Sanghvi

MONICA LAM, ABHINAY NAGPAL, TAKEO IGARASHI, ARVIND SATYANARAYAN JALAL MAH-MUD, TESSA LAU, SHIMEI PAN, ANIND DEY, NITENDRA RAJPUT, BARTON SMITH, WEI ZHANG, ROBERT ST. AMANT, JOYCE CHAI, PABLO PEDERMONTE, BORIS D. JAMES CHEN, ANTHONY JAMISON, TRACY HAMMOND, JENNIFER LAI, HERNAN BADENES, MICROSOFT RESEARCH, COLLABORATIVE WORK, VISUALIZATION, USABILITY, CAD TOKYO, ECG
Privacy-Preserving Personalization

All personal data on **client** – no 3\textsuperscript{rd} party
Very rich profile (but unstructured)
Across different services
Each site need not personalize

All caveats with personalization apply
Qualitative Study

9 users, browsing organically for 1 hour
Many interesting stories...

Focuses attention to relevant parts of busy pages

Highlights serendipitous, forgotten connections from the archive
Where is it useful?
What do people discover?

Names of people they know or have discussed, former colleagues, chance encounters,...

Organizations they are affiliated with

Product names, Locations, Countries

Ads...
Looking ahead

Add more to the archive, e.g.
browsing history
social feeds

but also...
course materials, papers
books read
archives of interest lists
latent social connections
...
Conclusions

Personal archives capture detailed experiences, interests, transactions

Experience-infused *Everything*

Privacy respecting Personalization

Many open research questions
Try it out:
http://mobisocial.stanford.edu/muse

Contact: hangal@cs.stanford.edu

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