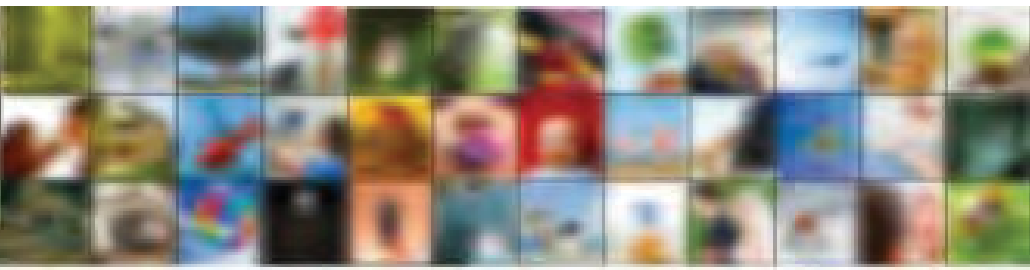
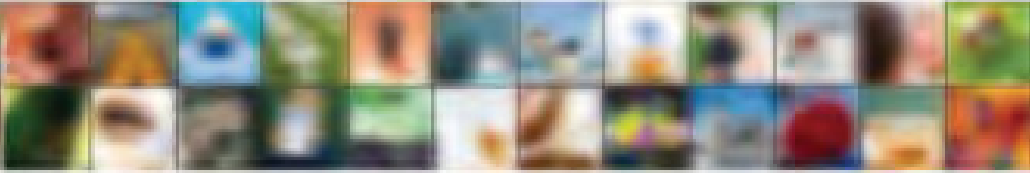

The noise in the archive: Oblivion in the age of total recall

Jean-François Blanchette

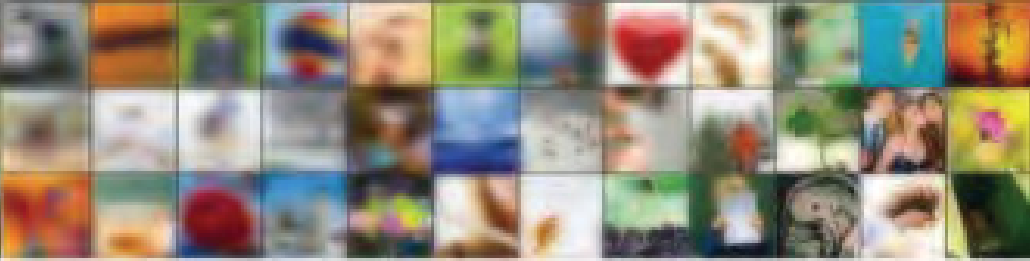
Department of Information Studies,
University of California, Los Angeles



HOW THE **E-MEMORY** REVOLUTION
WILL CHANGE EVERYTHING



TOTAL RECALL



GORDON BELL AND JIM GEMMELL
FOREWORD BY **BILL GATES**

delete

The Virtue of Forgetting
in the Digital Age

VIKTOR MAYER-SCHÖNBERGER



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NOVEMBER
2006

[GENIUS IN A BOX]

WHAT IF YOU NEVER FORGOT ANYTHING?

How Microsoft's
Gordon Bell Is
Reengineering
Human Memory

(And Soon,
Your Life and
Business)

PLUS

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On the record, all the time

- *Bell*: “successful people don’t shy away from the honest record. ... In court, we ask for the truth, the *whole* truth, and nothing but the truth. It might be painful, but I believe better memory is really better.”
- *Mayer-Schönberger*: the individual and collective unlearning of “one of the most fundamental behavioral mechanisms of humankind” will leave us unable to act in the present.

Perfect remembering

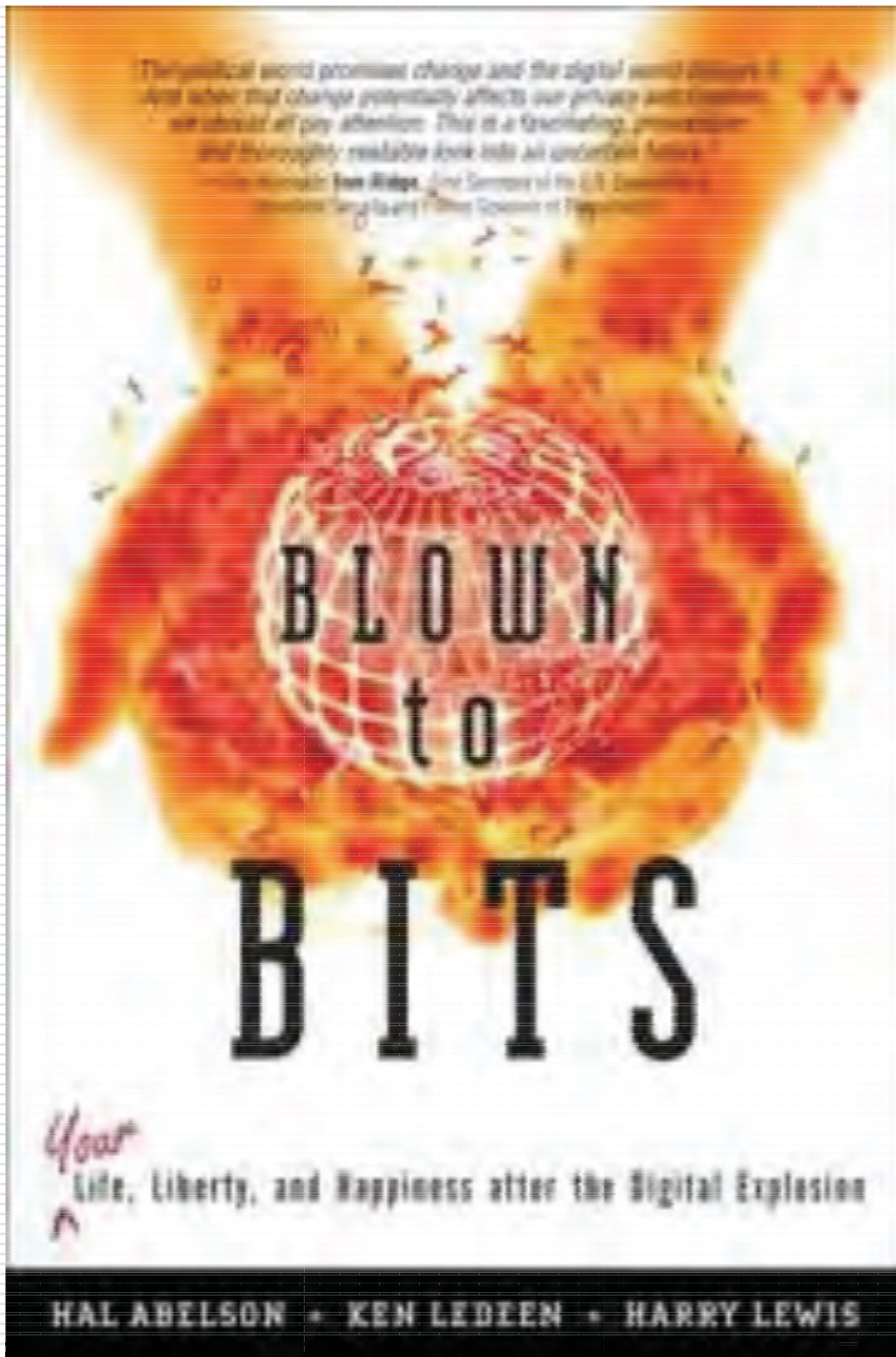
- *Bell*: in contrast to its biological counterpart, “digital memory is objective, dispassionate, prosaic, and unforgivingly accurate.”
- *Mayer-Schönberger*: digital information is superior to all previous analog forms of remembering “because it lacks the noise problem,” — it does not decay with use, reproduction, or time.

Negroponte, *Being Digital*

- “From atoms to bits.”
- “The medium is no longer the message.”

The political world promises change and the digital world delivers it. And when that change potentially affects our privacy and freedom, we should all pay attention. This is a fascinating, provocative, and thoroughly readable look into an uncertain future.

—John H. Garvey, Jr., Editor, *The New York Times*
—James H. Garvey, Jr., Editor, *The New York Times*



BLOWN to BITS

Your

Life, Liberty, and Happiness after the Digital Explosion

HAL ABELSON • KEN LEDERER • HARRY LEWIS

Bits are bits

“Bits are bits, whether they represent movies, payrolls, expletives or poems. Bits are bits, whether they are moved as electrons in copper wire, light pulses in glass fiber, or modulations in radio waves. Bits are bits, whether they are stored in gigantic data warehouses, on DVDs sent through the mail, or on flash drives on keychains.”

Digital exceptionalism

“Law and policies regulating information developed around the technologies in which that information was embodied. The digital explosion has reduced all information to its lowest common denominator, sequences of 0 and 1s. ... The universality of bits gives mankind a rare opportunity. We are in a position to decide on an overarching view of information. We can be bound in the future by first principles, not historical contingencies.”

Pure information objects

“Writing in the digital realm are different. They do not depend on the alteration of matter. Such records are very close to ‘pure information,’ and exist by virtue of a mere succession of the differentiation of 1s and 0s, distinguished by electricity flowing in machine systems. In writing today we deal in *pure information objects*, unfettered by matter. They can be whisked or shaken or rearranged in an instant.” (George Paul, *Foundations of Digital Evidence*, 2010)

Three propositions:

1. The medium is *still* the message. “Form is constitutive of information, not its transparent representation” (Drucker 2009);
2. The specific material instantiations of informational artifacts are always undergoing changes, aging, crumbling, acquiring or resisting wear;
3. Any “memory regime” includes both structural and intentional forms of forgetting.

Structural forgetting

Unavailability of data

- Incompatibilities exhibited by file formats, hardware platforms, and software applications (digital preservation problem);
- Hard drive crash, improper backups, content licensing that constrain the availability of documents;
- Classification, description, and characteristics of search algorithms induce a certain stratification of archives.

Exclusion

- Through technical processes (the temporal or spatial resolution of a sensor)
- Appraisal policies (Bell only keeps what he reads, not what he's been sent)
- Cultural/legal norms (consent)
- Intellectual property (Jim Gray's laptop)
- Self-selection


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Around the World in 2 Billion Pages

Thanks to a generous grant from the Mellon Foundation, Internet Archive completed a 2 billion page web crawl in 2007. This is the largest web crawl attempted by Internet Archive. The project was designed to take a global snapshot of the Web.

Please browse through the resulting [collection](#).

Special thanks to the memory institutions who contributed URLs to the crawl. The crawl began with 18,000 websites from over 60 countries.

Web Archiving Services


 ARCHIVING THE INTERNET FOR FUTURE GENERATIONS
 COLLECT IT, MANAGE IT, SEARCH IT...ARCHIVE-IT

[Archive-It](#) allows institutions to build and preserve their own web archive of born digital content, through a user friendly web application, without requiring any technical expertise or hosting facilities. Subscribers can harvest, catalog, and archive their collections, and then search and browse the collections when complete. Collections are hosted at the Internet Archive data center, and accessible to the public with full text search.

With the rapid growth of the Internet and the World Wide Web, millions of people have grown accustomed to using these tools as resources to acquire information; and the availability of electronic information is taken for granted. However, it is a fallacy that if something is on the web, it will be there forever. The average lifespan of a web page is 44 -75 days. There's an urgent need for people to understand that that web is who we are. It's our culture and our social fabric, and we don't want to lose any of it. What is here today might be gone tomorrow.

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Material typically becomes available here 6 months after collection. [See FAQ](#).

Search Results for Jan 01, 1996 - Aug 10, 2007

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1 pages	1 pages	5 pages	5 pages	9 pages	11 pages	16 pages	29 pages	110 pages	164 pages	31 pages	9 pages
Nov 19, 1996 *	Jan 28, 1997 *	Jan 11, 1998 *	Jan 25, 1999	Feb 29, 2000 *	Feb 01, 2001 *	Jan 16, 2002 *	Jan 28, 2003 *	Apr 04, 2004	Jan 01, 2005	Jan 27, 2006	Feb 03, 2007
		Nov 11, 1998 *	Feb 10, 1999	May 19, 2000 *	Feb 08, 2001	Apr 15, 2002 *	Feb 06, 2003 *	May 19, 2004	Jan 02, 2005	Jan 28, 2006	Feb 12, 2007
		Dec 03, 1998	Apr 21, 1999	Jun 05, 2000 *	Mar 02, 2001 *	May 23, 2002 *	Feb 10, 2003 *	May 22, 2004	Jan 04, 2005	Jan 30, 2006	Mar 02, 2007
		Dec 06, 1998	Apr 27, 1999	Jun 19, 2000 *	Apr 01, 2001 *	May 24, 2002 *	Feb 15, 2003 *	Jun 02, 2004	Jan 05, 2005	Feb 02, 2006	Mar 28, 2007
		Dec 12, 1998	Oct 13, 1999 *	Jun 21, 2000	Apr 05, 2001	May 26, 2002	Feb 23, 2003	Jun 04, 2004	Jan 06, 2005	Feb 04, 2006	May 04, 2007
				Jul 06, 2000 *	Apr 18, 2001 *	May 28, 2002	Mar 24, 2003	Jun 08, 2004	Jan 07, 2005	Mar 17, 2006 *	May 23, 2007
				Aug 15, 2000 *	May 16, 2001 *	Jun 13, 2002 *	Mar 24, 2003	Jun 10, 2004	Jan 08, 2005	Mar 21, 2006	Jun 03, 2007
				Nov 17, 2000 *	Jul 20, 2001 *	Jul 18, 2002 *	Apr 07, 2003 *	Jun 11, 2004	Jan 09, 2005	Apr 02, 2006 *	Jul 04, 2007
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							Aug 05, 2003 *	Jul 07, 2004	Jan 27, 2005	Aug 21, 2006	
							Sep 25, 2003 *	Jul 10, 2004	Jan 29, 2005	Sep 28, 2006	
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Intentional forgetting



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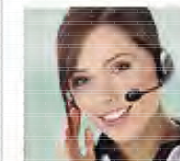
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One more proposition

Like any other media, digital media brings to the table its own dynamics of objectivity and subjectivity, signal and noise, integrity and decay, authenticity and forgery, transparency and censorship, remembrance and repression. *These dialectics are never fully determined by the material characteristics of the technology.*

Questions

- How can we think of bits as material objects?
- What would a *material theory of digital information* look like? What would a *popular account* of a material theory digital information look like?
- How would that theory inform the work of archivists?

Coordonnées

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blanchette@ucla.edu

“A material history of bits”

<http://polaris.gseis.ucla.edu/blanchette/papers/materiality.pdf>