technological determinism

tools to change the world

Paul Duguid history of information

January 27, 2015



admin

waitlist

clearing

slides

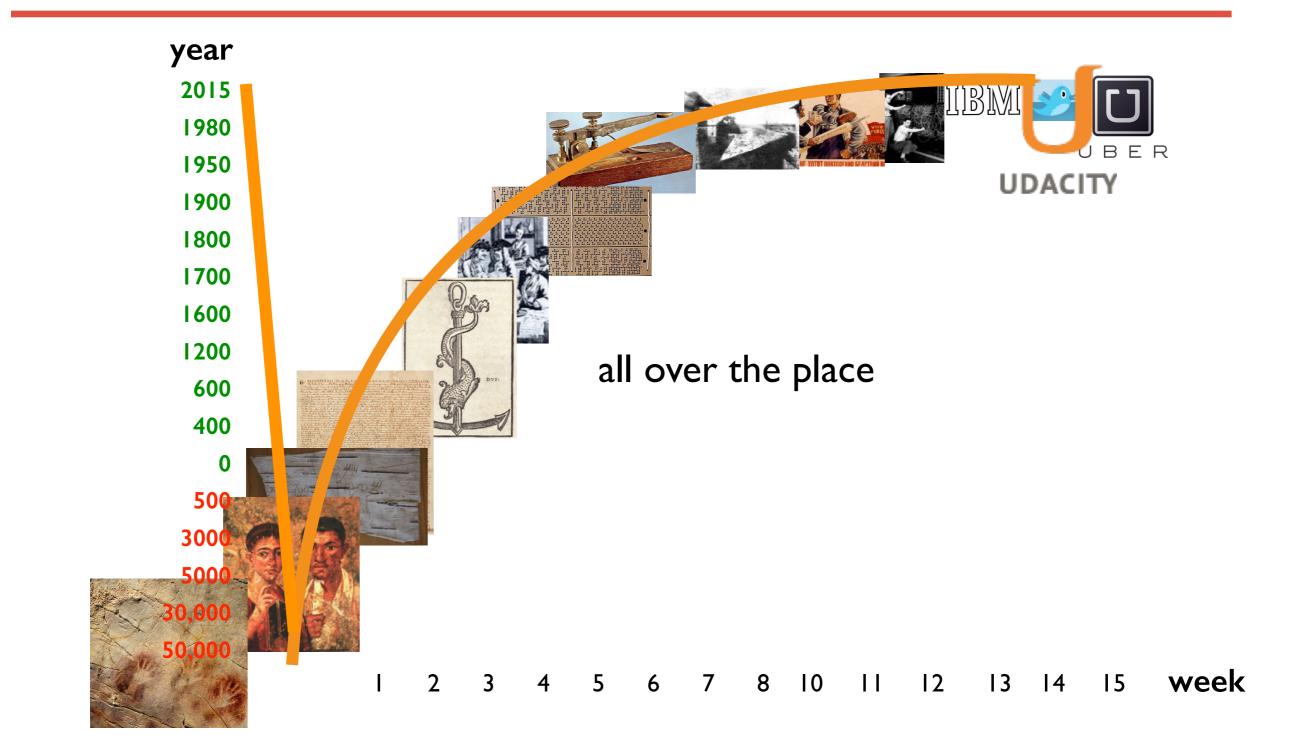
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Bancroft tour

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where are we?





picking up threads

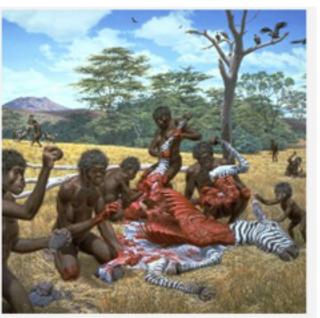
not just generational

"At Facebook, we're inspired by technologies that have revolutionized how people spread and consume information. We often talk about inventions like the printing press and the television by simply making communication more efficient, they led to a complete transformation of many important parts of society. They gave more people a voice. They encouraged progress. They changed the way society was organized. They brought us closer together."

> Letter from Mark Zuckerberg US Securities and Exchange Commission Form S-1 REGISTRATION STATEMENT Under The Securities Act of 1933



local insight

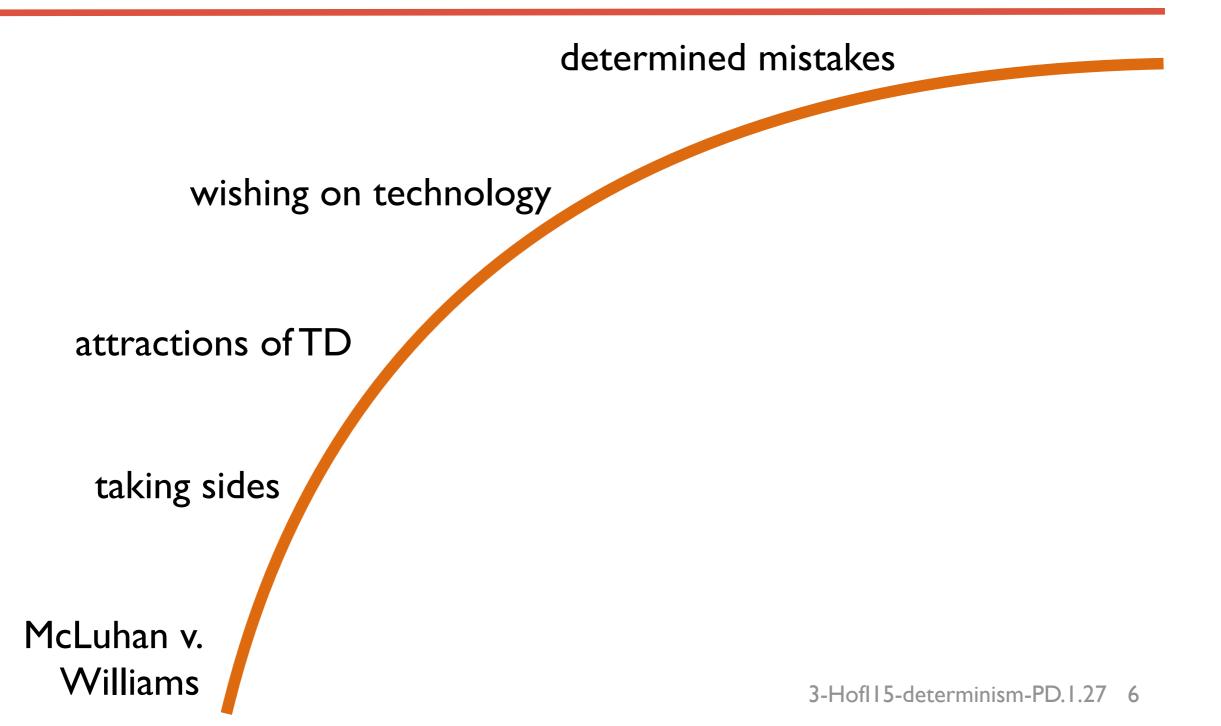


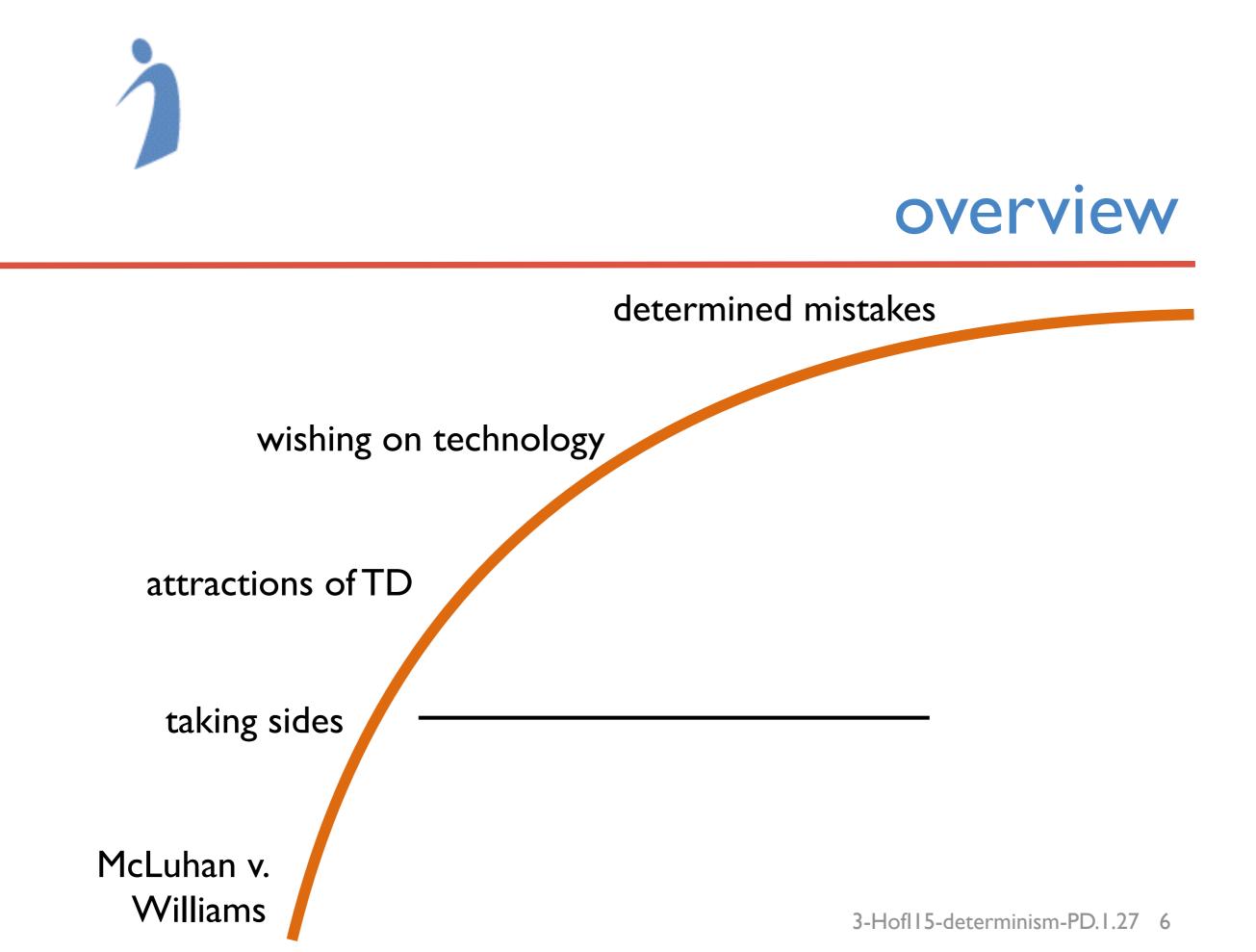
Stone tools used by our oldest hominin ancestors 2.5 million rears ago are believed to have sparked the evolution of human communication (Illustration by Jay Matternes)

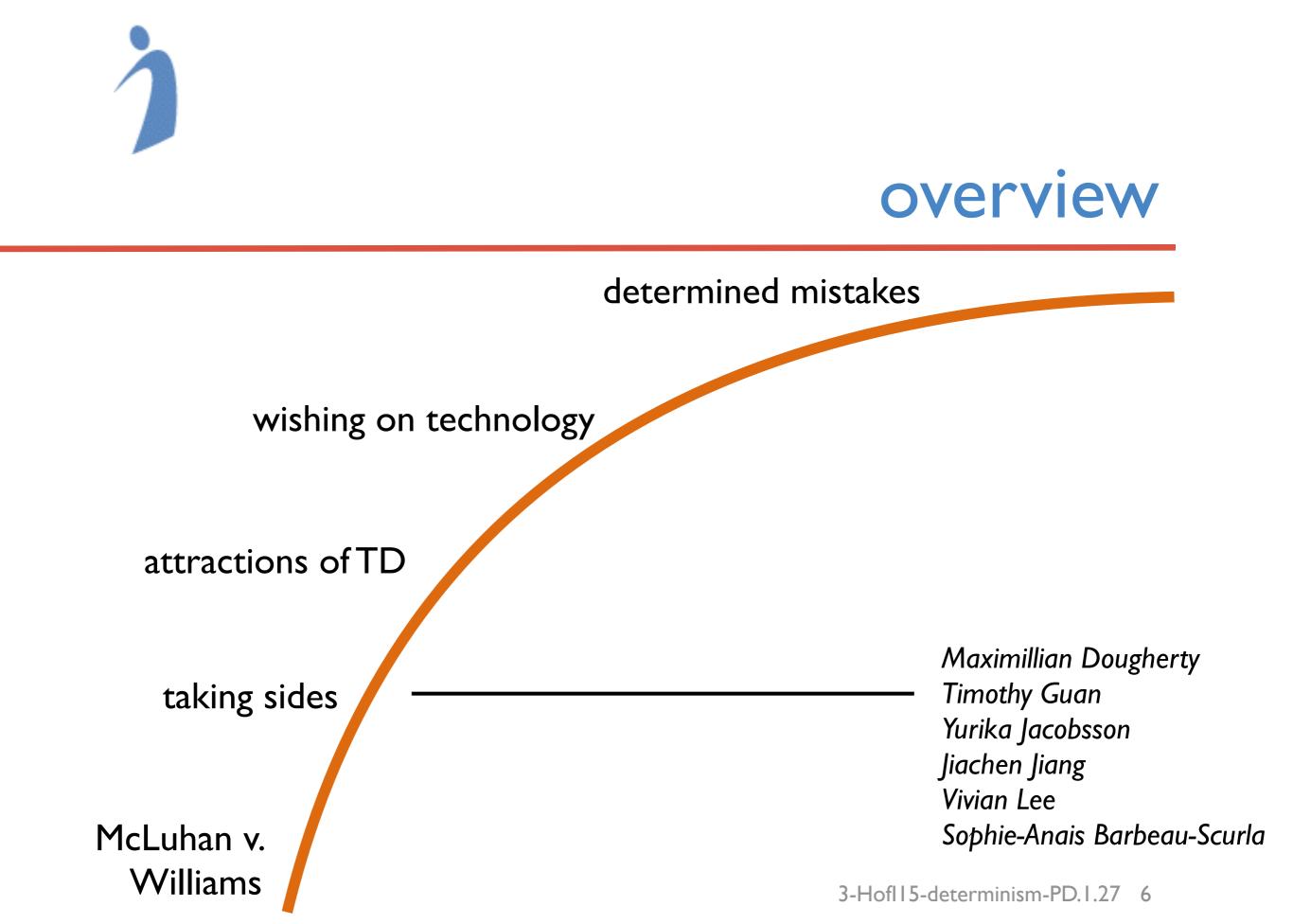
"Our findings suggest that stone tools weren't just a product of human evolution, but actually drove it as well, creating the evolutionary advantage necessary for the development of modern human communication and teaching," said Thomas Morgan, lead author of the study and a postdoctoral researcher in psychology at UC Berkeley."

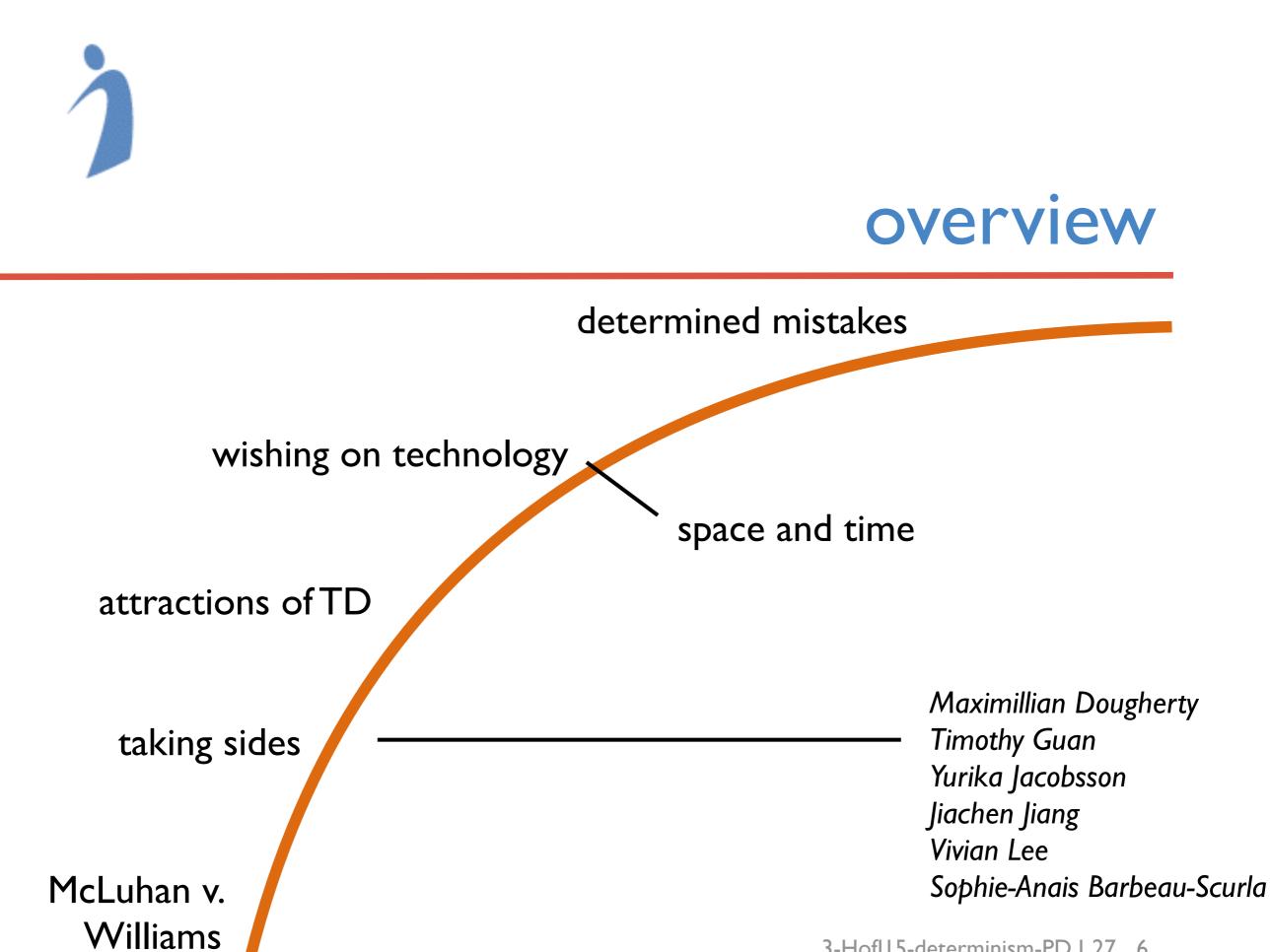


overview





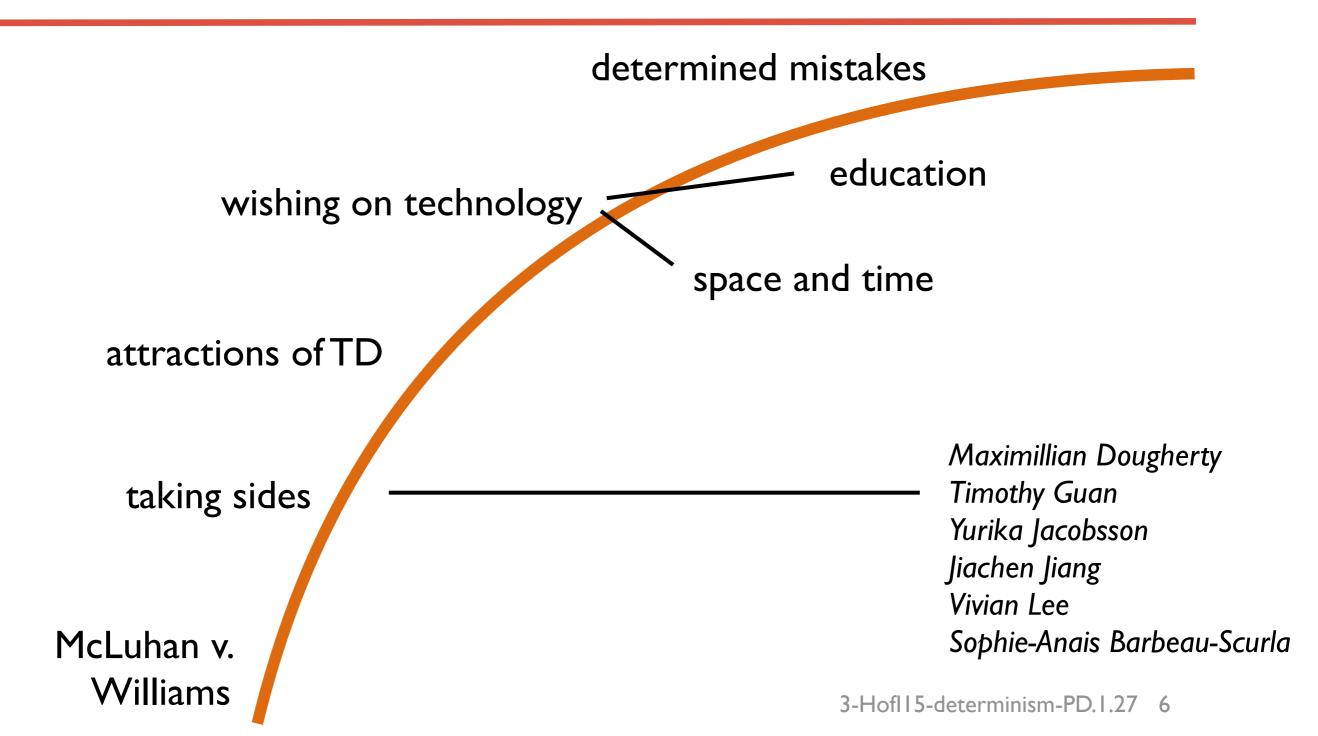




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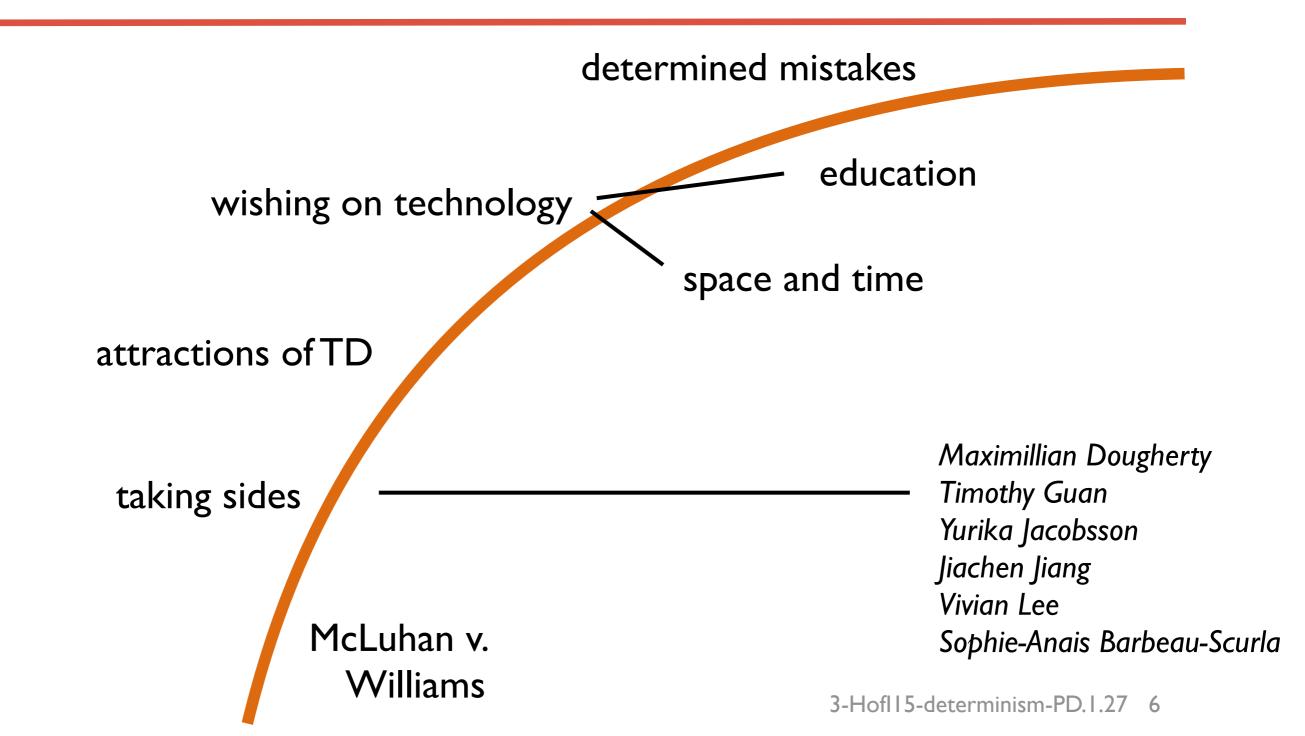


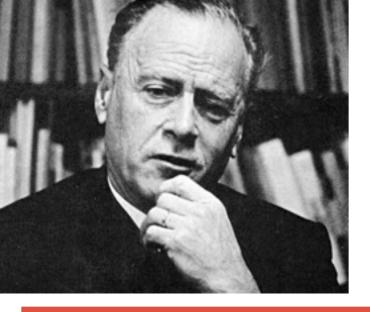
overview





overview





McLuhan - 1964

"very large structural changes in human outlook ...

"totally new environment ... the new electric Age of Information" "Each new technology creates an environment ...

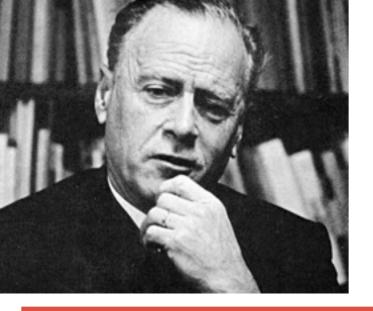
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"abolishing both space and time ...
```

"final phase of the extensions of man...

a single consciousness ...

"Global Village

"By Plato's time the written word had created a new environment that had begun to detribalize man. Previously the greeks ... had memorized the poets."

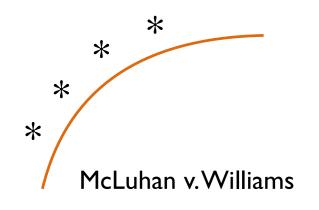


without resistance

determinism at its clearest

"The railway ... created totally new kinds of city This happened whether the railway functioned in a tropical or a northern environment, and is quite independent of freight or content.

"The spiritual and cultural reservations that the oriental peoples may have toward our technology will avail them not at all. The effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without any resistance."



conformism

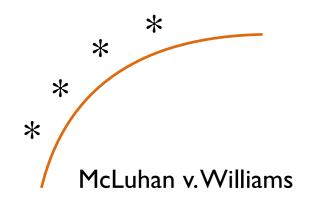


"Science explores,

Technology executes,

Man conforms"

— Chicago World's Fair, 1933



conformism

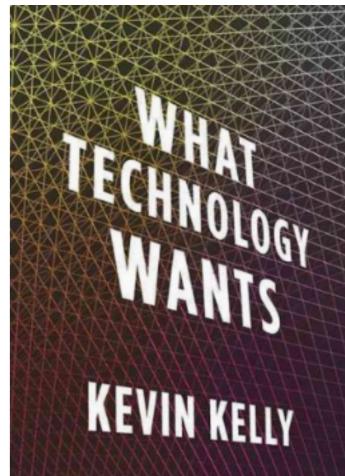


"Science explores,

Technology executes,

Man conforms"

— Chicago World's Fair, 1933





Williams - 1974

Raymond Williams 1921-1988

the invention of television

"The invention of television was no single event ... electricity ... telegraphy ... photography... moving images ... radio ... broadcast ...

"centralisation of political power

"mobile, diffused society ...

"military, commerce, the press ...

"periods of crisis ..."



Williams

what's wrong with determinism?

"ratifies the society and culture we have now all other causes, all that men ordinarily see as history, are at once reduced to effects

"what are elsewhere seen as effects ... excluded as irrelevant

"welcomed by the 'media-men' ...

"gives the gloss of avant-garde theory to ... existing interests."

determinist or symptomatic

Television was invented ...

(i) ... altered all preceding media

- (ii)... altered ... institutions and ... social relations
- (iii)... altered our basic perceptions of reality
- (iv)... with other factors ... altered our societies

Discovered as a possibility, television ...

(v)... had unforeseen consequences

(vi)... selected for investment to meet the needs of ... society

(vii)... selected ... new and profitable phase of consumer society **Television became available** ...

(viii)... exploited cultural and psychological inadequacy

(ix)... served and exploited new needs



what not

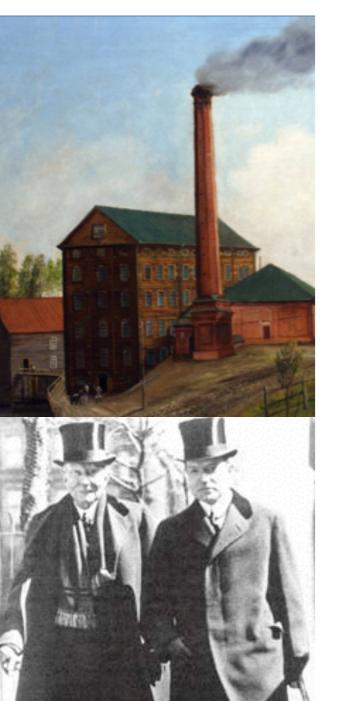
"technology is **not** marginal but central ... "while we have to **reject** technological determinism ... we must be careful **not** to substitute ... the notion of a determined technology ...

coming up 2/19: "Li literacy The

"Literacy has shown similar complications ... There was no way to teach a man to read the Bible which did not also enable him to read the radical press. A controlled intention became an uncontrolled effect."



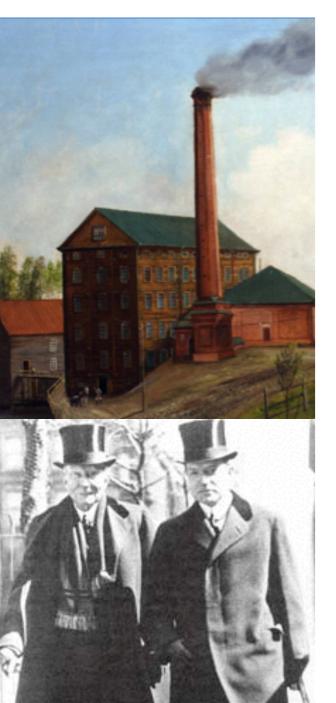




"The hand-mill gives you society with the feudal lord; the steam mill, society with the industrial capitalist"





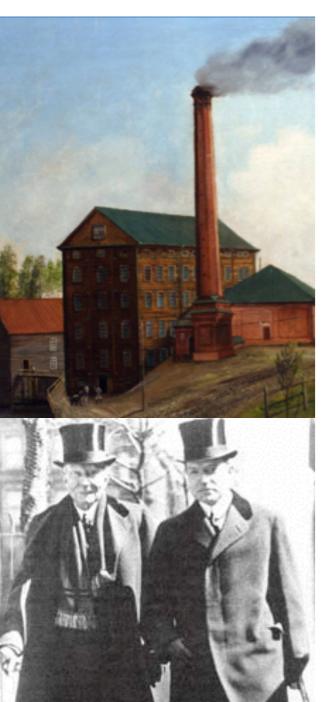


"The hand-mill gives you society with the feudal lord; the steam mill, society with the industrial capitalist"









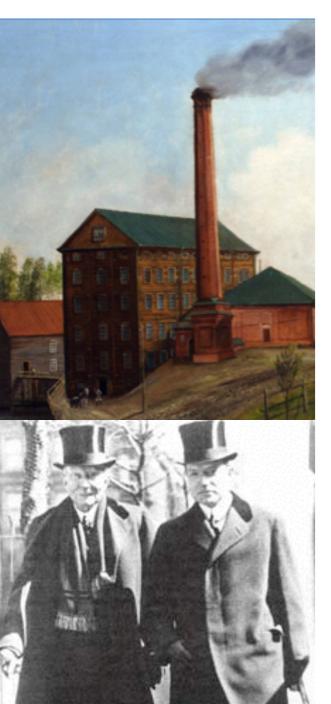
"The hand-mill gives you society with the feudal lord; the steam mill, society with the industrial capitalist"











"The hand-mill gives you society with the feudal lord; the steam mill, society with the industrial capitalist"



* * * McLuhan v.Williams

necessary or sufficient?

"Williams would rightfully point out that internet as a technology was not designed to cause this cultural appropriation, but he would be forced to recognize that the existence of the internet was **necessary** for this to occur."

—William Tokumaru

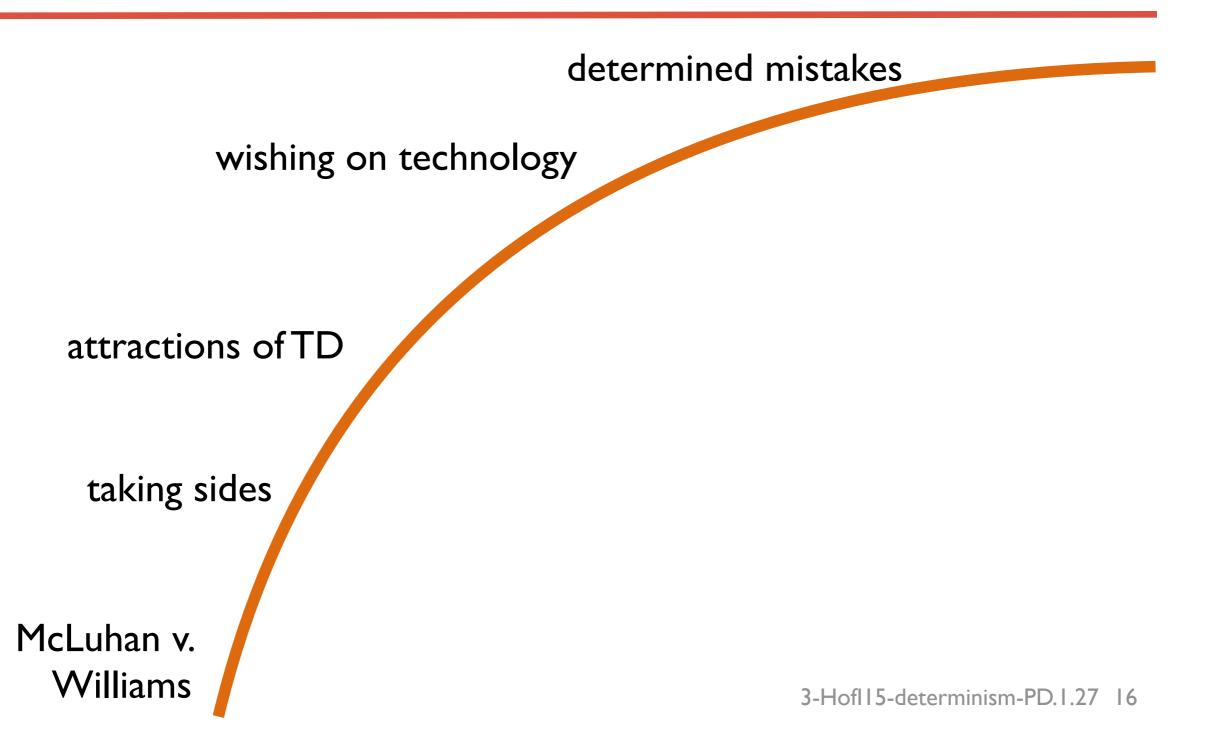
"... it is impossible to proceed to the age of the steam-mill until one has passed through the age of the hand-mill."

> —Robert Heilbroner, "Do Machines Make History,"1994

[or] once you have the steam-mill, industrial capitalism is inevitable

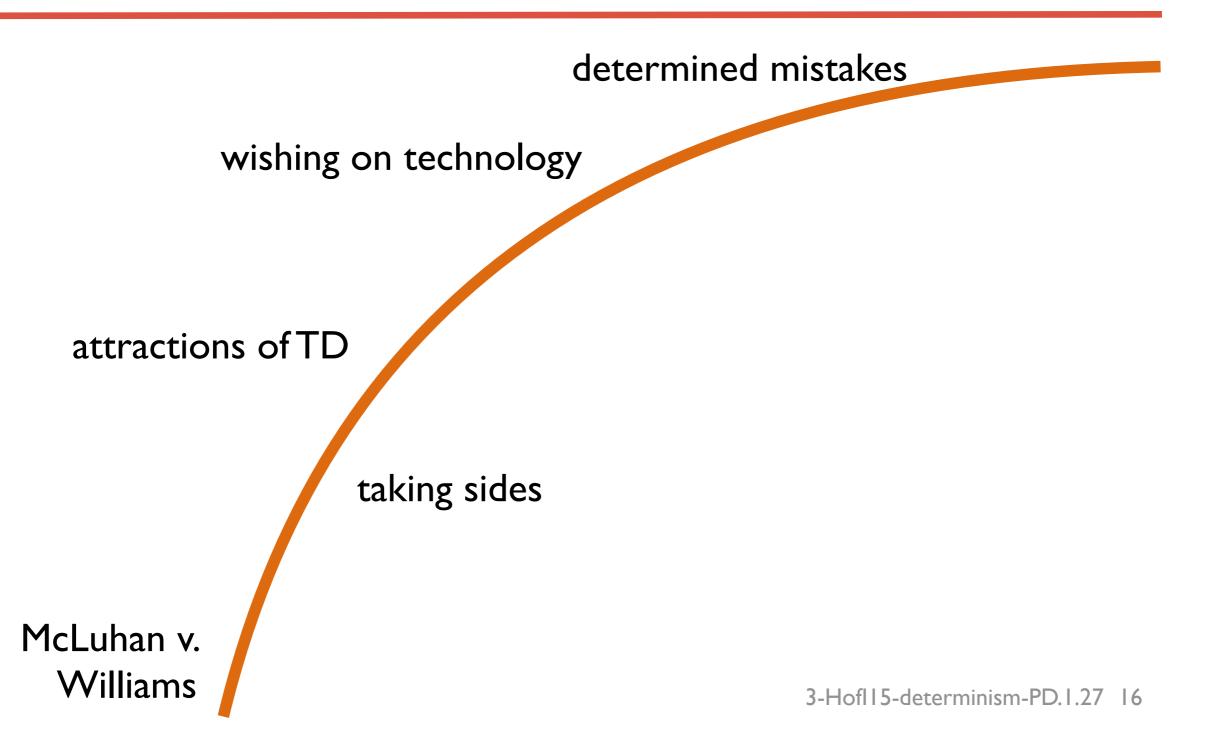


overview

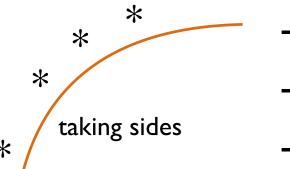




overview



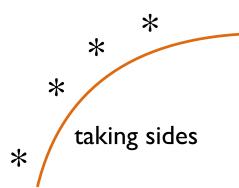
due via bCourses 5 pm Sunday Jan 25



- -- answer the questions
- -- provide citations
- -- proofread your answer

assignment

McLuhan writes that "any technology gradually creates" a totally new human environment" [vi] and "any child can list the effects" [viii] of new technologies, which are "irresistible and unavoidable." Williams suggests that such a list would be "superficial" [9] or even "ludicrous" [121]. Choose a technology from a list a child might make today, discuss its assumed effects, and use it to argue either for McLuhan or for Williams.



assignment

answer the prompt

Williams suggests that ... such **lists** would be "superficial" or even "ludicrous"....

argue either for McLuhan or for Williams.

cite

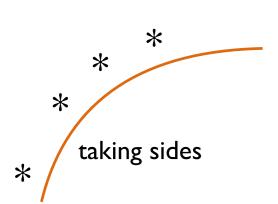
quotations

page numbers

references

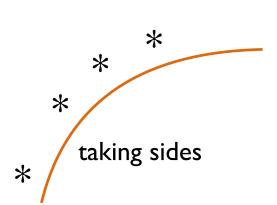
wordcount

deadline — bCourses is unrelenting



cell/i/smartphone	19
ipad/tablet	12
internet	5
GPS	2
computer	2
television	2
telephone	2
ipod	1
automation technology	1
LCD TV	1
mobile computing	1
cloud	1
nightlight	1
IMAX	1
self-parking cars	1
Siri	1
Instagram	1
smartphone camera	1
touch screen	1
video-calling	1
facebook	1
Twitch	1
lightbulb/electric light	1
Google glass	1
Netflix	1
Youtube	1
twitter	1
Yelp	1

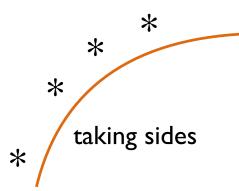
list



cell/i/smartphone	19
ipad/tablet	12
internet	5
GPS	2
computer	2
television	2
telephone	2
ipod	1
automation technology	1
LCD TV	1
mobile computing	1
cloud	1
nightlight	1
IMAX	1
self-parking cars	1
Siri	1
Instagram	1
smartphone camera	1
touch screen	1
video-calling	1
facebook	1
Twitch	1
lightbulb/electric light	1
Google glass	1
Netflix	1
Youtube	1
twitter	1
Yelp	1

"The invention of television was no single event"

list



divide and conquer

McLuhan -- it's the medium that does it45%Williams -- no it's not48%



maybe; maybe not: --

7%

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it's determined

although sextants and compass' have allowed skilled users to estimate their position on Earth, GPS has made this information unprecedentedly accessible and accurate. This development made personal navigation practical and even eliminated the need for a "sense of direction". This offload of a long existing requirement is then the "message" of the technology. "For the 'message of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs" (McLuhan 8) Therefore, the list cannot be, as William states, "superficial".

—Maximillian Dougherty



it's determined

I personally support the more orthodox perspective, as advocated by Marshall McLuhan, that technologies such as **Instagram** have a direct effect on social behavior. Not only do I find the suggestion that some aspect of human nature drove the conception of social photo sharing technology difficult to swallow, but I believe the degree to which Instagram has affected our lexicon is evidence to the cause-effect relationship of technology on social behavior.

—Timothy Guan



it's determined

[Williams's] causes sound random and illogical whereas if technology is the cause, then we can see the logical effects of that technology [i.e., smartphone camera]. Furthermore, technology develops so rapidly now that technology has to be the cause.

—Yurika Jacobsson

it's not

McLuhan's statement that technology, "...gradually creates a totally new human environment" (1964, vi) fails to acknowledge the role that society plays in shaping the development of new technologies by addressing already existent needs (Williams, 1974). Additionally a child listing the effects of the **iPad** provides a "superficial" (1974, p. 1) and arguably pointless analysis. Whilst technology does drive social change and cultural values, so does society propel the creation of new technologies. Williams argues that, "... other social groups... will adopt and develop the technology, often with different purposes and effects." (1974, p. 123) For example, the iPad was originally conceived as an eReader for personal use but was quickly adopted by businesses, such as medical professionals checking health records during patient examinations.

Sophie-Anais Barbeau-Scurla

)

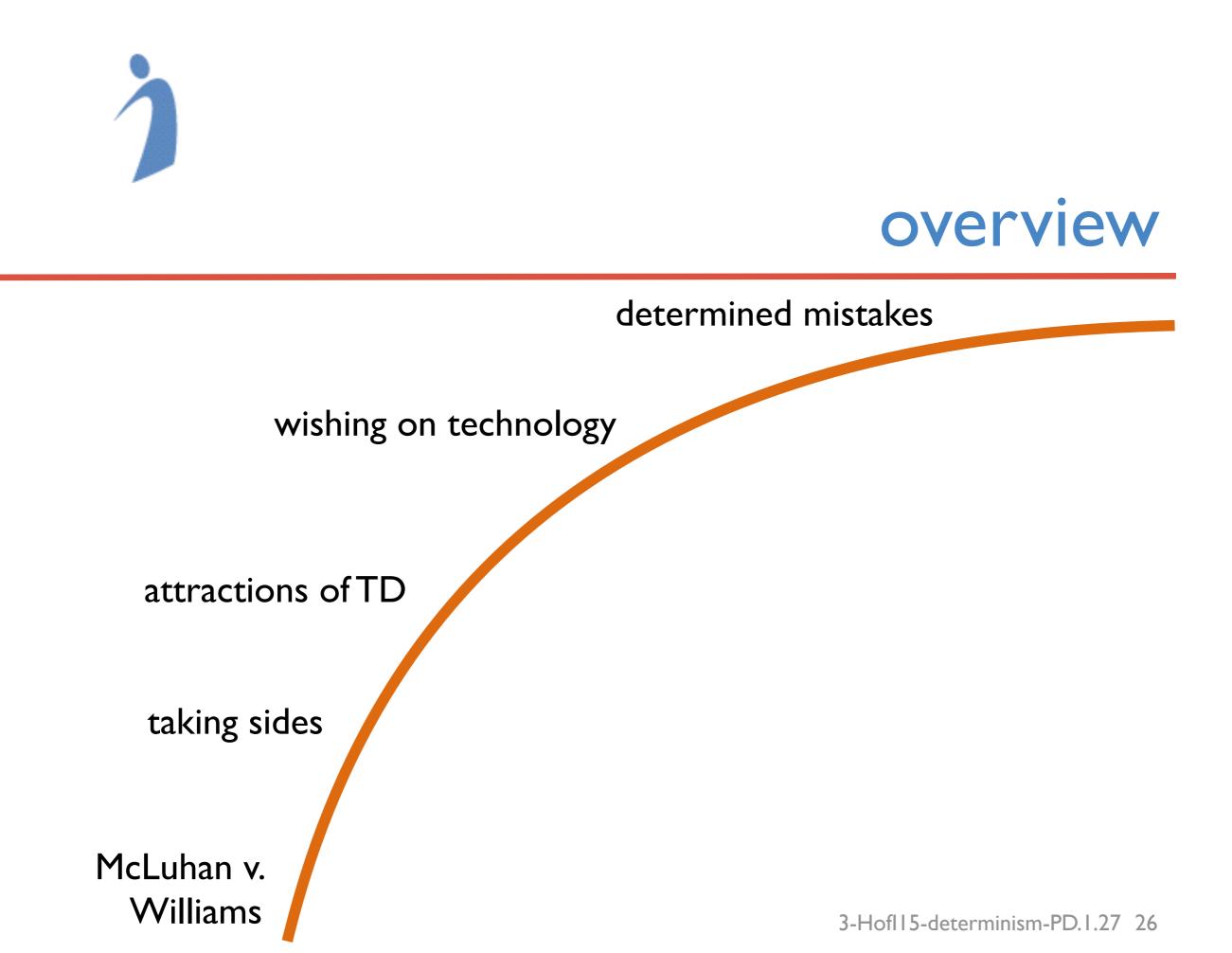
it's not

In Williams' words, **smart phones** were a "controlled intention [that] became an uncontrolled effect". Williams' deeper analysis of technology as a cause and effect provides greater depth and understanding of technology altering our society as a whole in comparison to McLuhan's view of technology as just the agent of change.

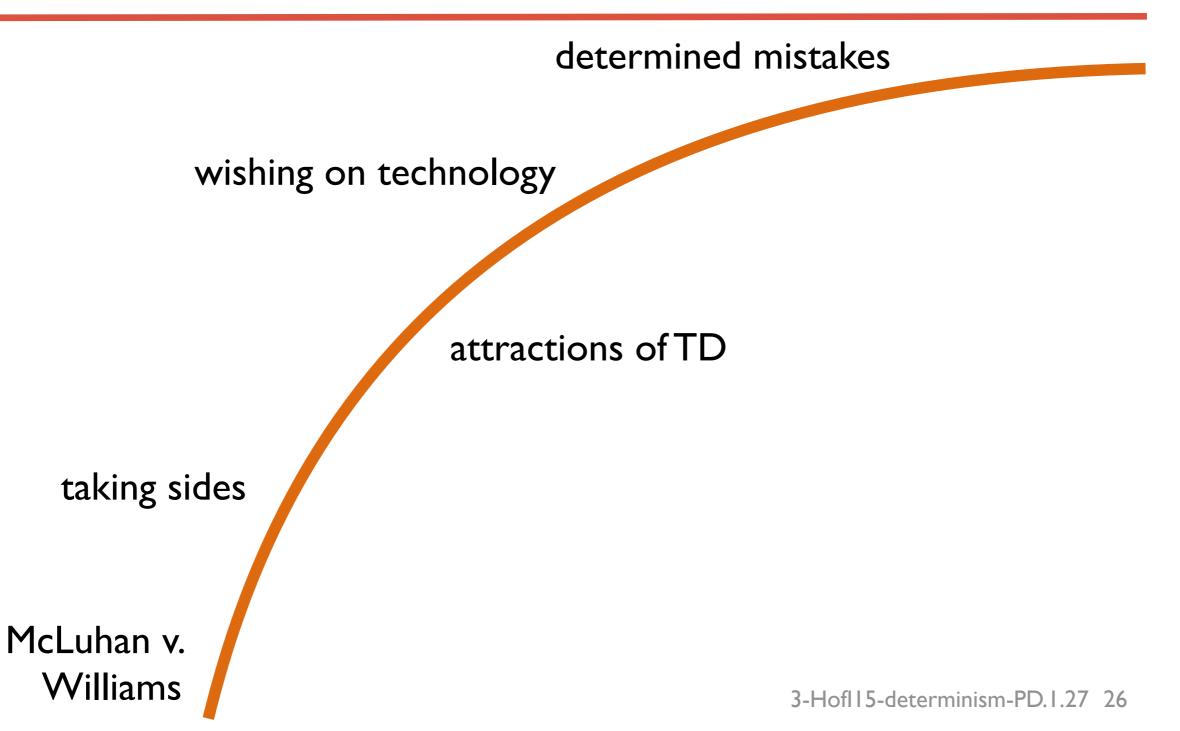
—Vivian Lee

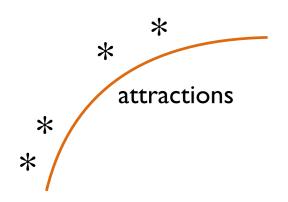
Merely talking about how technologies [e.g., the computer] change the human society without considering the social and cultural background is truly "superficial."

—Jiachen Jiang







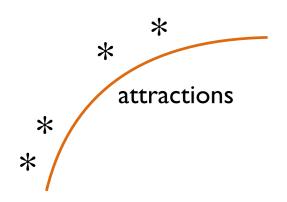


easy work



looking back

just look at Cleopatra's nose





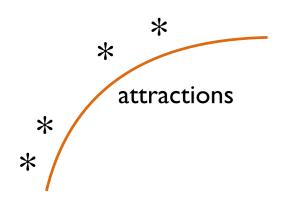


looking back

just look at Cleopatra's nose

"all for the want of a horseshoe nail"

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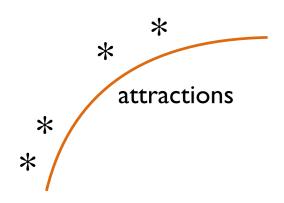


looking back

just look at Cleopatra's nose

"all for the want of a horseshoe nail"

looking forward



easy work



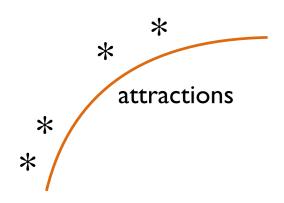
looking back

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"all for the want of a horseshoe nail"

looking forward

"These technologies are inevitable. Inevitability is not a flaw. ... makes predictions easier."



easy work



looking back

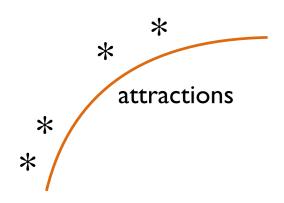
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looking forward

"These technologies are inevitable. Inevitability is not a flaw. ... makes predictions easier."

—Kevin Kelly, What Technology Wants, 2010







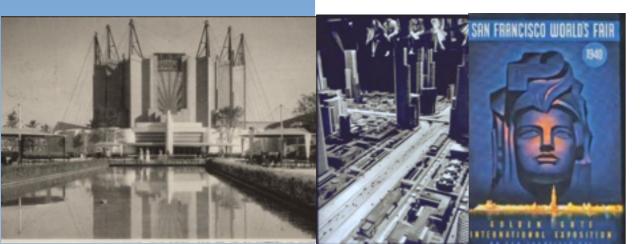
looking back

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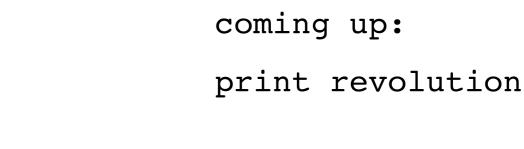
"all for the want of a horseshoe nail"

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easy history?



*

attractions

*

*

Francis Bacon 1561-1626

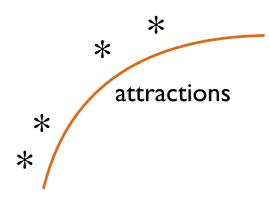


Thomas Carlyle 1795-1881

"Printing, gunpowder and the compass ... whence have followed innumerable changes, in so much that no empire, no sect, no star seems to have exerted greater power and influence in human affairs than these mechanical discoveries."

—Francis Bacon, Novum Organum, 1620

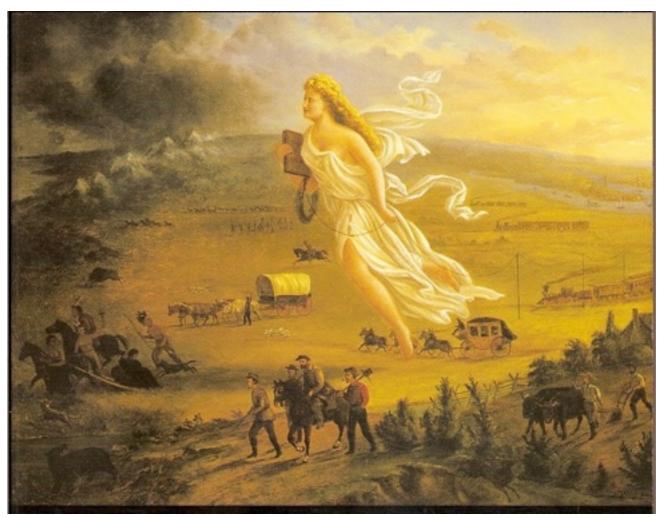
"He who first shortened the labor of copyists by device of movable types was disbanding hired armies, and cashiering most kings and senates, and creating a whole new democratic world: he had invented the art of printing." -Thomas Carlyle, Sartor Resartus, 1833 3-Hofl15-determinism-PD.1.27 28



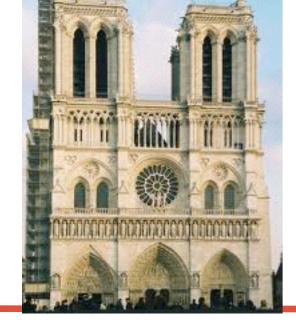
looking at ourselves

the inevitable product of progress

"Westward the course of empire takes its way"



John Gast "American Progress" 1872



hostages to fortune

supersession

"ceci [the book] tuera cela [the church]."

-- Victor Hugo, Notre-Dame de Paris, 1831

"le journal [newspaper] tue le livre, comme le livre a tué l'architecture."

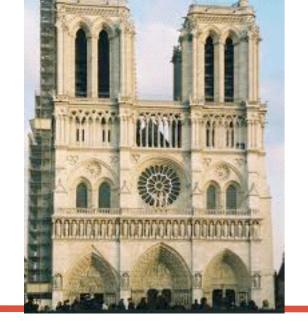
-- Théophile Gautier, Mademoiselle Maupin, 1834

"Ceci tuera cela, le fer [les Halles] tuera la pierre [St. Eustache]."

--Emile Zola, Le Ventre de Paris, 1874







Crise au Monde : la directrice Natalie Nougayrède annonce sa démission

CRÉÉ : 14-05-2014 12:34

CRISE - Une semaine après la démission de plusieurs rédacteurs en chef adjoints, la directrice de la rédaction jette l'éponge. Elle a expliqué n'avoir plus la "sérénité nécessaire" d'assurer ses fonctions et d'entreprendre un large plan de transformation.







supersession

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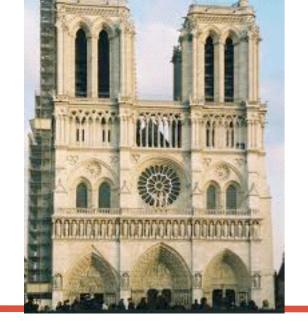
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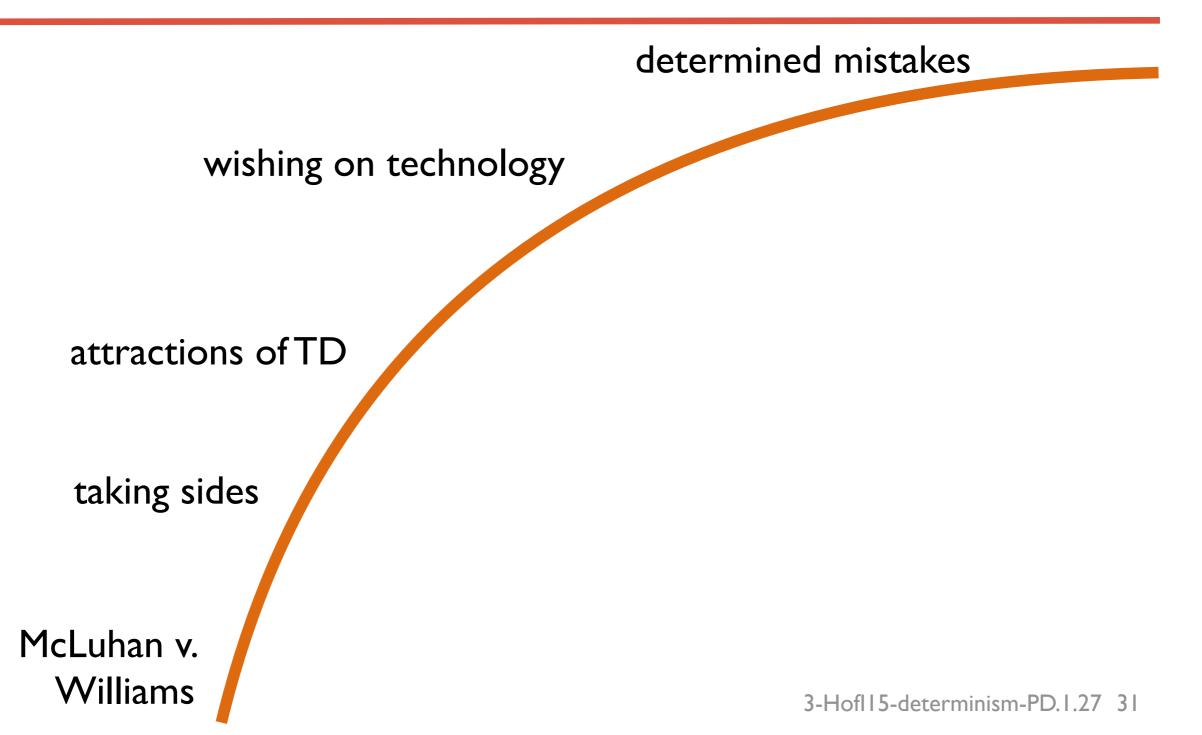
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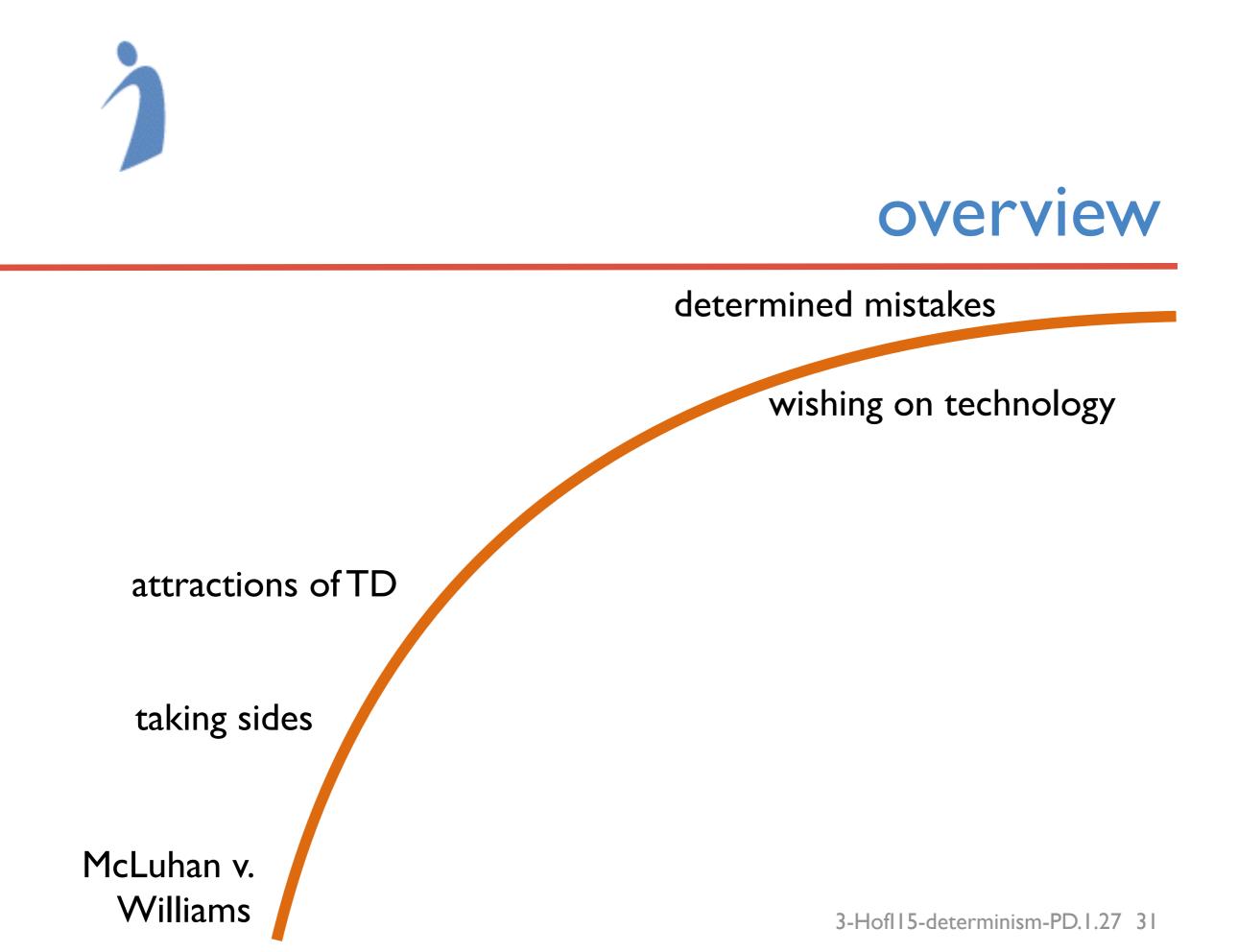
--Emile Zola, Le V





overview







overview

determined mistakes

wishing on technology

space & time

attractions of TD

taking sides

McLuhan v. Williams

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in your words

"Distance in space and time in relationships are eliminated. ... This new environment is one where one can share experiences with others immediately regardless of distance in space.

"Along with the elimination of space and time of communication between those at any distance apart, the cellphone also added the innovation of portability."

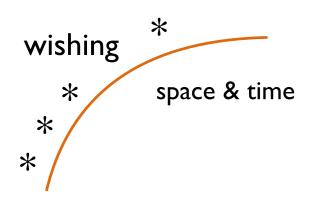
"It has served as a bridge for time and space; downsizing a large detached globe to more of a "small village"

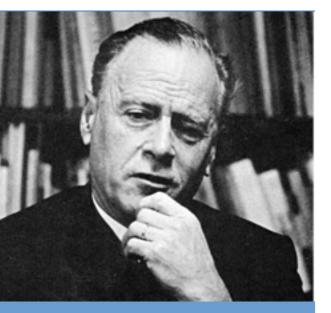
"communication might be considered instantaneous."

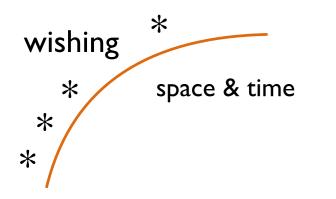


"Electric circuitry has overthrown the regime of 'time' and 'space' and pours upon us instantly and continuously concerns of all other men ... reconstituted dialogue on a global scale. Its message is Total Change, ending psychic, social, economic, and political parochialism. ... Ours is a brand-new world of allatonceness. 'Time' has ceased, 'space' has vanished. We now live in a global village . . . a simultaneous happening."

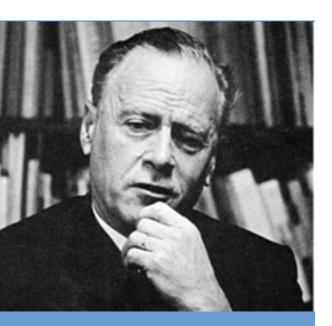
> -- Marshall Mcluhan et al., Medium is the Massage, 1967 3-Hofl15-determinism-PD.1.27 33







it makes a village

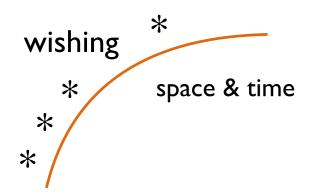


"abolishing both space and time ... eliminate time and space factors in human association .. creating involvement in depth.

... compels commitment and participation ... wholeness, empathy and depth of awareness

[in contrast to] partial and specialized ..
viewpoint"

McLuhan



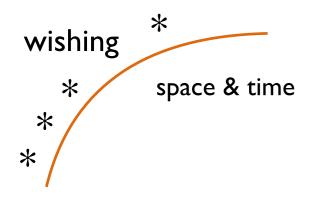
sea to shining sea



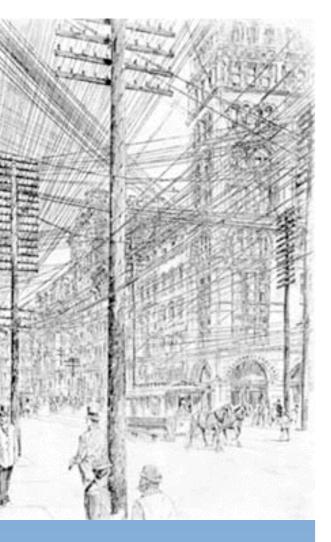
and tech to shining tech

"the almost complete annihilation of time and space between the distant antipodal points of the American continent ... produced by the construction of the Pacific Railroad"

> – John Wesley Clampitt, Echoes from the Rocky Mountains, 1888

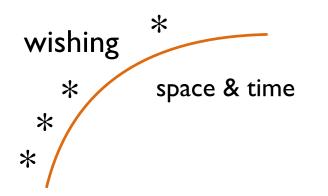


revealing assumptions



"A line of telegraph ... from London to Kurrachee, and from thence to every part of India, ... intelligence and commands [can] be daily and hourly communicated with the speed of lightening ... in this virtual annihilation of time and space in the communications between England and her distant possessions will be more than realised"

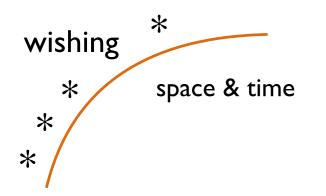
--Blackwood's Edinburgh Magazine, 1857



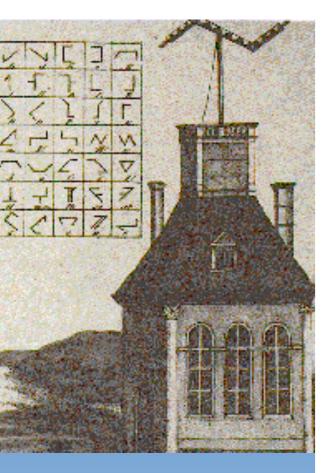
wishing up a grand future

what and when?

"at bottom, this invention might suffice to make possible the establishment of democracy among a large population ... no reason why it would not be possible for all the citizens of France to communicate their will ... in such a way that this communication might be considered instantaneous."

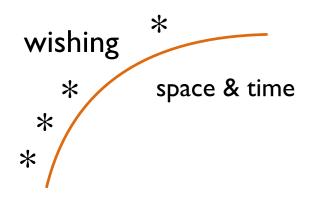


wishing up a grand future

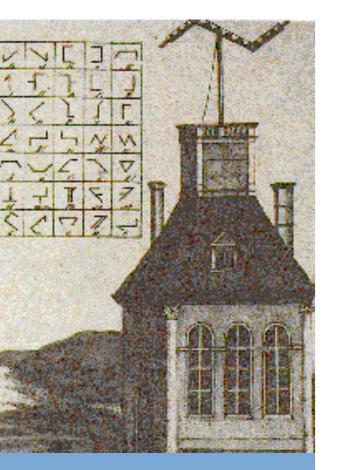


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wishing up a grand future



what and when?

"at bottom, this invention might suffice to make possible the establishment of democracy among a large population ... no reason why it would not be possible for all the citizens of France to communicate their will ... in such a way that this communication might be considered instantaneous."

-- Alexandre Vandermond, 1795

Brevets d Invention, de perfectionnement et d'importation, établis pau les Lois des 7 janvieu et 25 mai 1791.

Revostats.

Duperron

Certificat de demande d'un Brevet D'Invention_ de cinq un dituri à M. Dupernon (finni Suis) Derin dipartement de la Vaine

Que la Requère de M. Duperson (formis Sound) arrivation la Cour Argule, Sonourante as Saries, Rue Das Base X 100, dans laquelle il apose que, desirant jouir des droits de propriété temporas accordés et garantis aux auteurs et importateurs des découvertes et perfectionnem tout genre d'industrie, il demande un Brevet D'Onvention_ De cing and , pour last & condine daw lair la airostata,

Chapitre 1er Exposition. · Tur cy

6 min

UA,

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Je Crois veroir communiquer le resultan de mon travous Saucher archiver, ou lindustrie françoise, euregistre for efforte at Sex Decouverter, et Sublier men rues et moyene en prenaut un Brevet d'invention pour authastiques mes Coursand at men Deconventer . resultats Conduire les Ballons Dans l'air a été proclame impossible; (car on is pertal considerer bation & adames Dans l'air comme un moyen De progradion Suffisant; Cu effet Hariques avec des Ballons Spheriques Chait impossible et les efforts des Sarans maraient par encore toute d'autres. formes. Tres que toutes les autres pouraient conduire à un resultat . les formes du Cylindre, du Cone et De l'ellipsoïde meme, es tousies of formes composees à double

Courbure ; Mare elles offreen des avantages plue ou

Je Dais considerer , in la deux formes Coniques et

moins grandes at fort priferer lane a lautre.

Sumplaine /

getting together

"Parvenu à la suite de travaux longs et pénibles à trouver, enfin, un art nouveau regardé comme impossible par beaucoup des Savans, une route nouvelle va fournir devant les efforts de l'homme, les distances vont disparaître et les extremités du Monde se rapprocher."

Brevet d'Invention, 1791

Brevets d Invention, de perfectionnement et d'importation, établis pau les Lois des 7 janvieu et 25 mai 1791.

Revostats.

Duperron

Corrificat de demande d'un Brevet D'Suvention_ de cinq aun délorré à M. Duperson (finnes Suis) a Paris_ département de la Seine

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Chapitre 1. Exposition.

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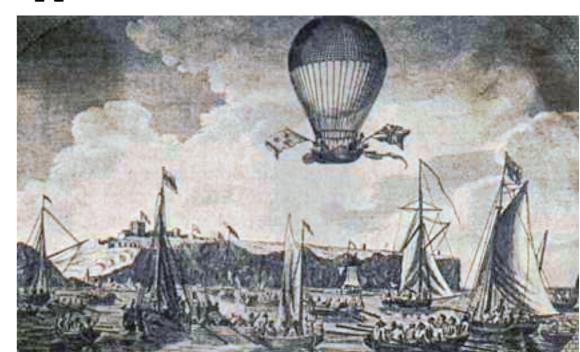
Je Crois veroir communicipaer le reintean de une travaux June les anchines où lindurtaie françain, euregister fer esport at Ses decouvertes, et sublier unes rues et moyone en prenaux un Brevet d'invention pour authantiques unes truspans as une decouverter, résultats. Conduire les Ballons dans l'air a été proclame impossible; (car on n'e plat al considérir l'action d'adams d'ans l'air comme un moyon de progression suffisant;) Cu effet, Harigues adre des Ballons spheriques case impossible, et les efforts des Javan n'araient pas encore tente d'autra former. Trasque touter les autrie pour encore tente d'autra

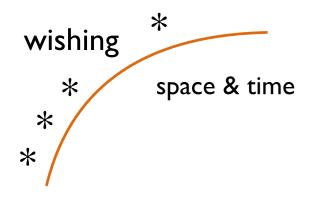
un resultat . les formes du Cylindre, du Cone et de l'éllipsoide miene en formes composées à double courbure ; Mais ettes offrem des asantages plue ou moins grandes et font préférer loue à l'autre . je saie considérer, in les deux formes conique des

Sumplaine)

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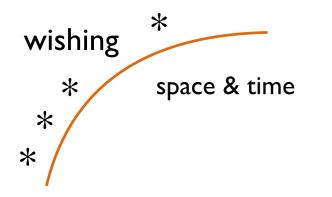




evidently not a "determined technology"



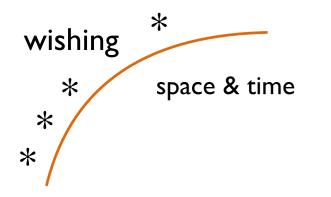
The battle of Fleurus, June 26, 1794



evidently not a "determined technology"



The battle of Fleurus, June 26, 1794

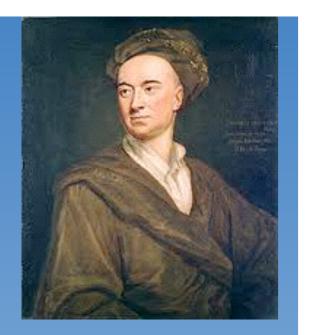


evidently not a "determined technology"





wishful thinking?

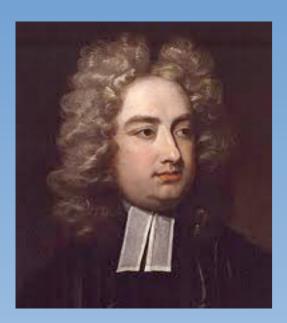


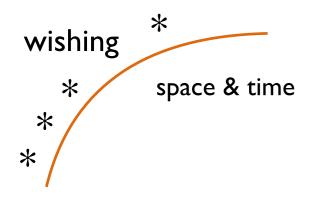
"Ye Gods, annihilate but space and time, And make two lovers happy."

Swift, Pope, Arbuthnot, 1728

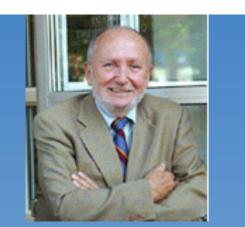
"... no stock phrase in the entire lexicon of progress appears more often."

--Leo Marx, The Machine in the Garden, 1964





democratic anxiety?



James W. Carey 1934-2006



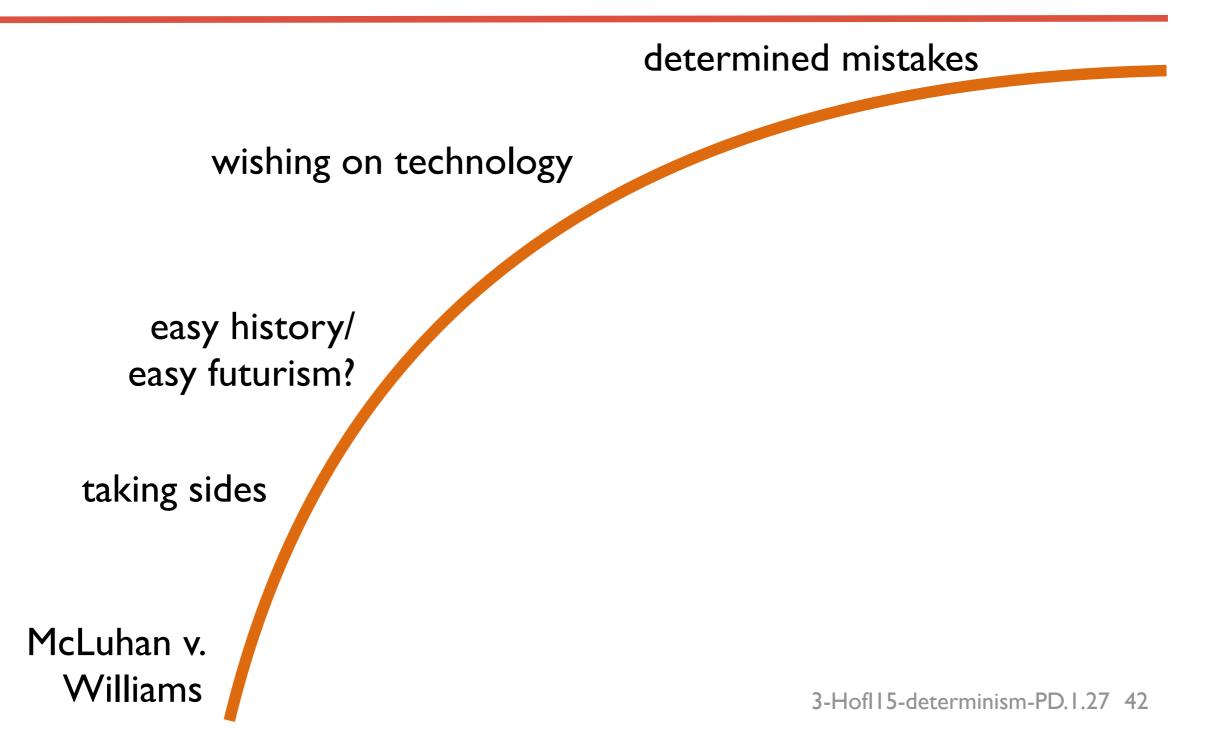
"Freedom of Speech" Norman Rockwell "From the outset a key discourse of American life has entertained different and contradictory notions of the practice of communication—one that derives from modern advances of the printing press and transportation and one that is situated within the ancient theory and practice of the voice ... symbolized ... by the uneasy juxtaposition of assembly, speech, and press in the First Amendment."

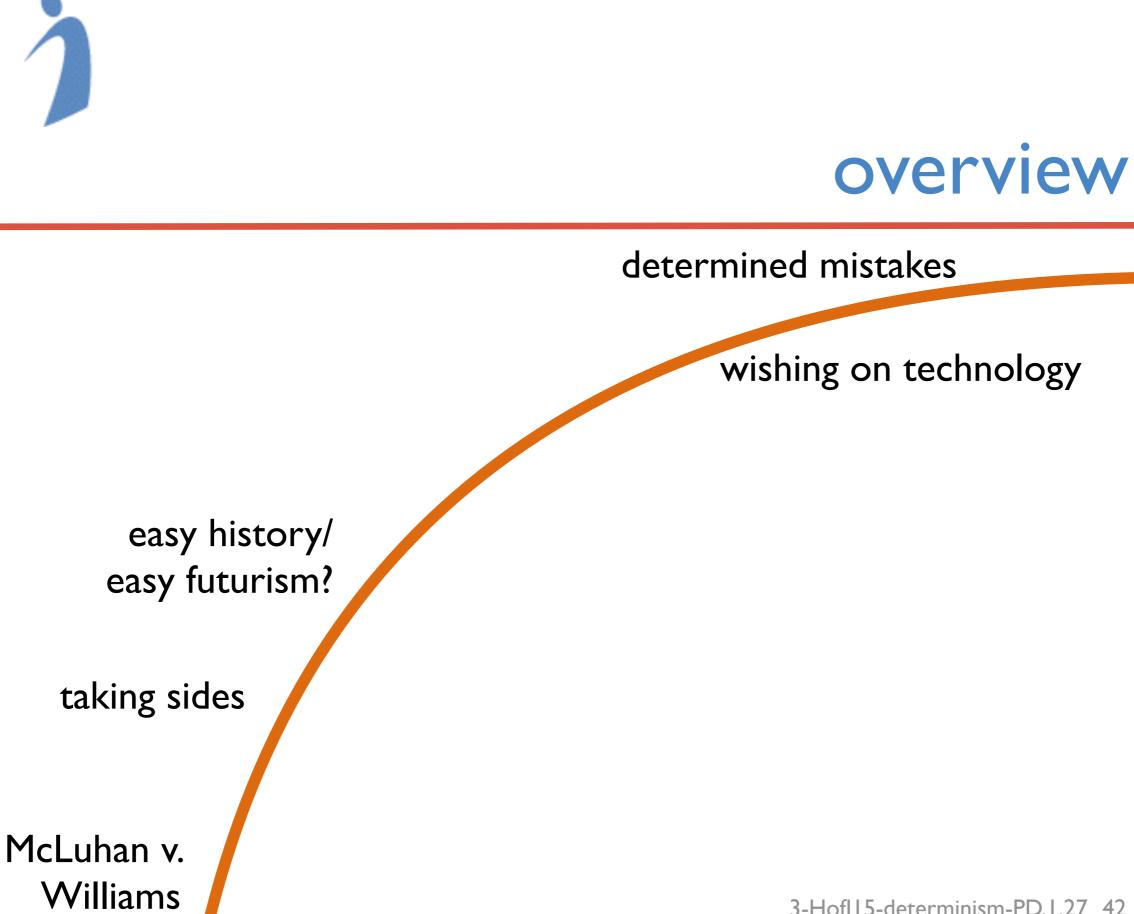
> James W. Carey, Communication as Culture: Essays in Media and Society, 1989

> > 3-Hofl15-determinism-PD.1.27 41











overview

determined mistakes

wishing on technology

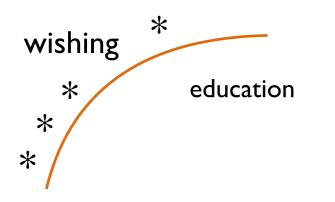
education

easy history/ easy futurism?

taking sides

McLuhan v. Williams

3-Hofl15-determinism-PD.1.27 42



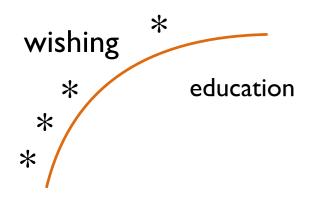
think MOOCs

"Long before the year 2000, the entire antiquated structure of degrees, majors and credits will be a shambles."

Alvin Toffler, Future Shock, 1970

"we are entering the new age of education that is programmed for discovery rather than instruction."

McLuhan



heard it before



Vicesimus Knox 1752-1821

"[A]s books are now multiplied, and men able to afford instruction dispersed all over the kingdom, it is evident that the principal cause of establishing universities in an age when both books and instructors were scarce, no longer subsists. Let them therefore be reformed, and rendered really useful to the community, or let them be deserted."

> Vicesimus Knox, Liberal Education, 1781

3-Hofl15-determinism-PD.1.27 44

going back

"One can predict that in a few more years, millions of schoolchildren will have the personal services of a tutor as well-informed as Aristotle."

> --Patrick Suppes, Scientific American, 1966

not Aristotle, but Plato (Programmed Language for Automated Teaching Operations).

wishing

education



Patrick Suppes, Pioneer in Computerized Learning,

By JOHN MARKOFF DEC. 2, 2014



Patrick Suppes in 1981.

Almost a decade before the invention of the personal computer, Patrick Suppes, a Stanford philosopher, sketched a vision of the Cource of computerized education.

"In a few more years," he predicted in 1966, "millions of schoolchildren will have access to what Philip of Macedon's son Alexander enjoyed as a royal prerogative: the personal services of a tutor as well informed and as responsive as Aristotle."

Dr. Suppes, who died on Nov. 17 at 92, was not just prescient, however; he was also instrumental in bringing about the future he foresaw — one in which students would have instant access to vast stores of knowledge through their computerized "tutors."

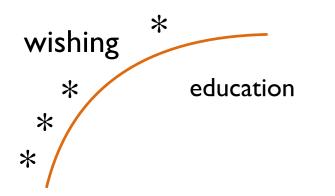
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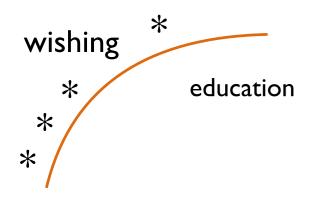
and back



you should be so lucky

"Children in the public schools will be taught practically everything by moving pictures. Certainly they will never be obliged to read history again."

-- D.W. Griffith, 1915

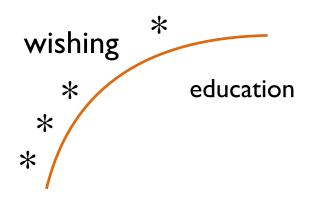


earlier thoughts

it takes a book

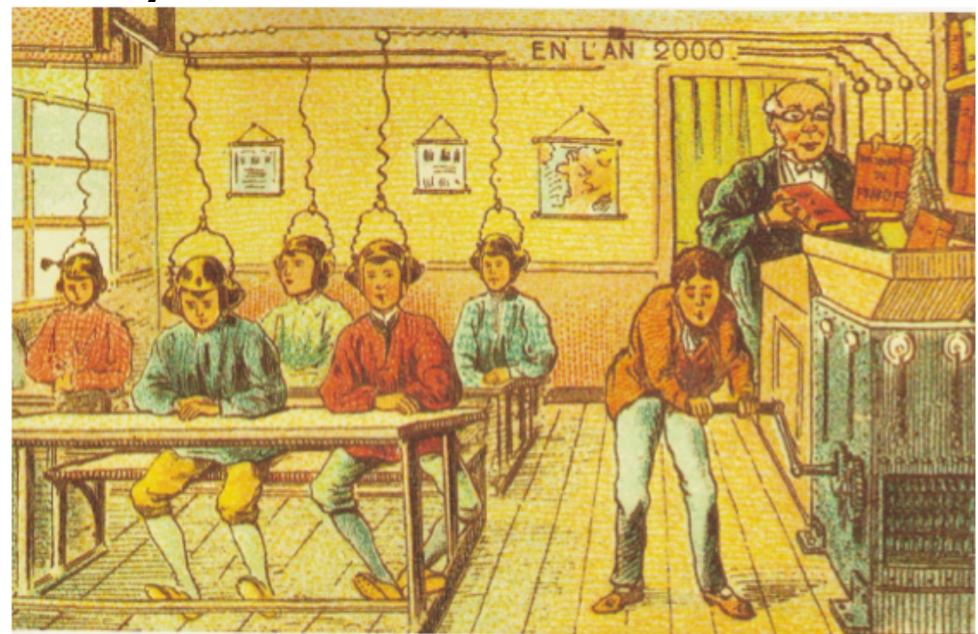
"The village schoolmaster communicates to his pupils the power of using an instrument by which not merely the best of their living countrymen, but the greatest and wisest men of all countries and all times, may become their instructors."

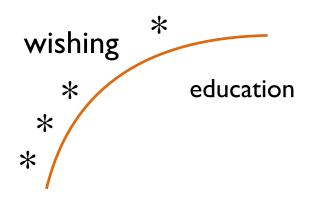
Charles Babbage, Ninth Bridgewater Treatise, 1837



beyond the book

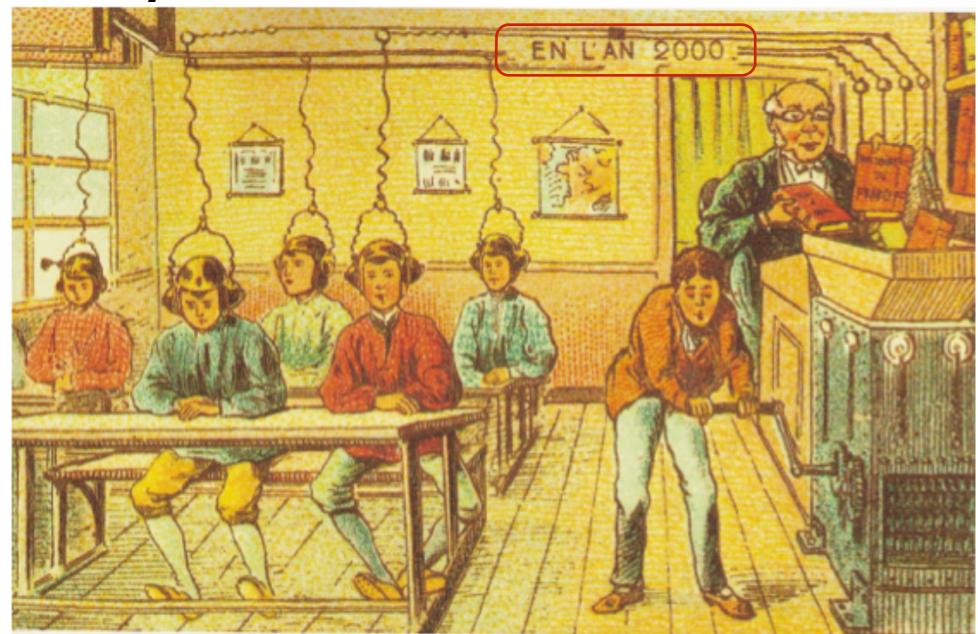
in the year 2000

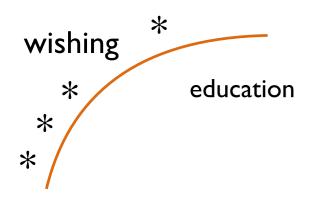




beyond the book

in the year 2000





IBM's solutions



Grandfather: Well, I finally finished my doctoral thesis.



Woman: Way to go, Gramps.



Grandfather: Did my research at Indiana University.

Woman: Indiana?



Grandfather: Yup. IBM took the school's library...and digitized it. So I could access it over the Internet.

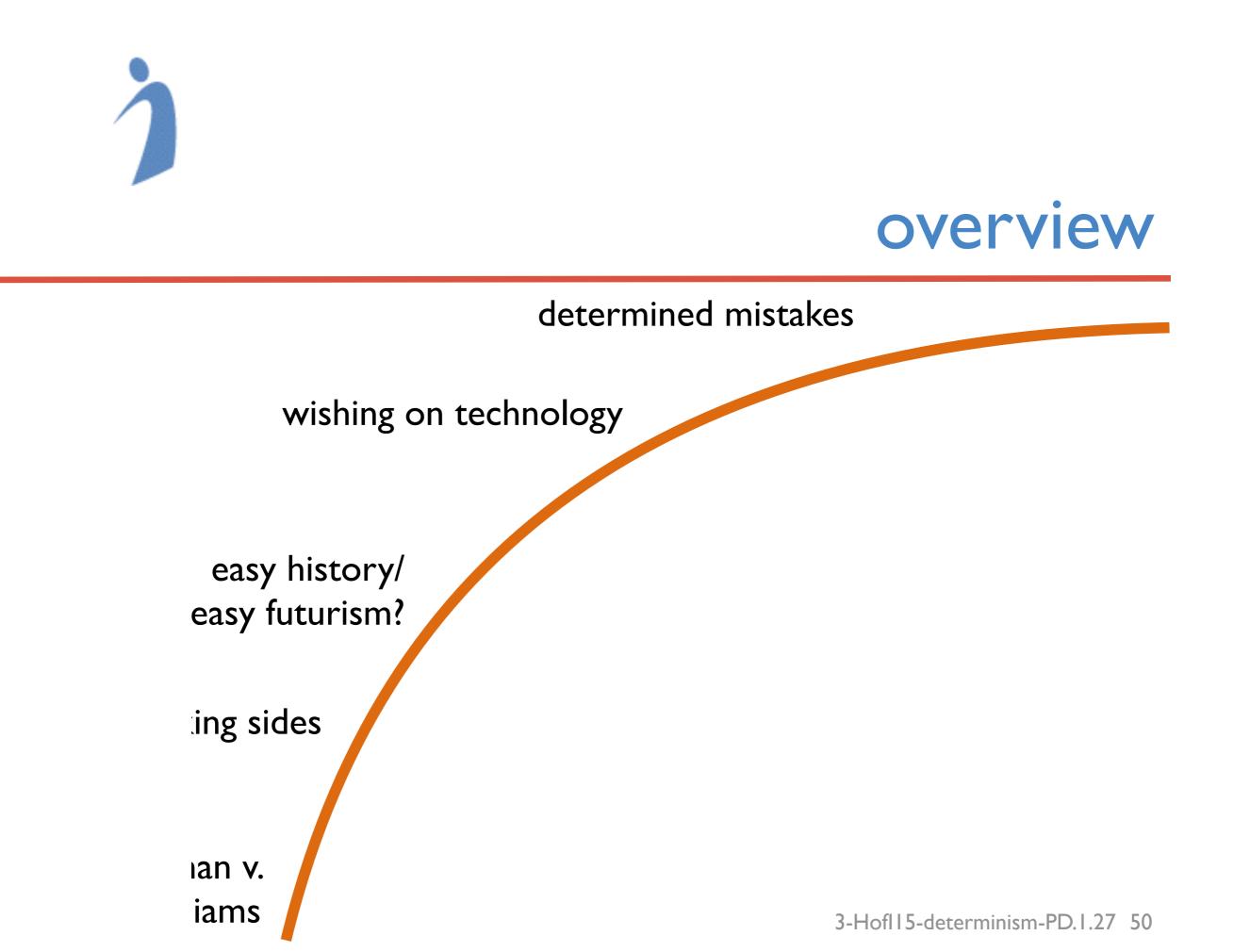
She cocks her <u>ear</u> to take this all in.

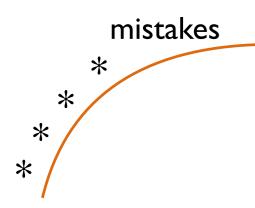


Grandfather: You know...It's a great time to be alive.



Tag: IBM. Solutions for a small planet.





trivializing the past

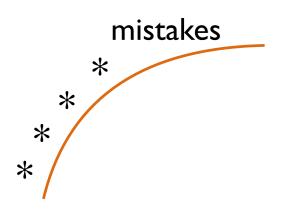


coming up 2/10: print revolution

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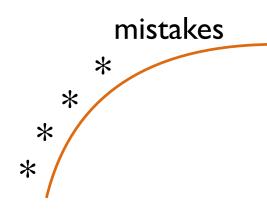


bad predictions

searching for the last ... ?







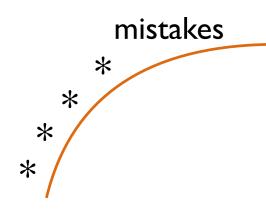
bad predictions

There are persons who can write not illegibly in pencil, but are as enigmatical as Rufus Choate or Horace Greeley when they take up the pen. There are persons too lazy to resort to ink and pen who can conquer their besetting sin enough to make a few dabs with a pencil. Living must have been more laborious-before the pencil age. Blue pencil, red pencil, what should we do without them? Yet writing with one's own hand seems to be disappearing, and the universal typewriter may swallow all. Librarians of a century or two hence may be searching for the last reference to pencils.

searching for the last ... ?







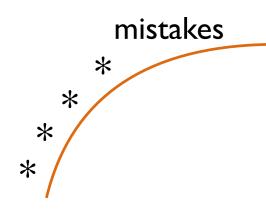
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New York Times 1938 searching for the last ... ?







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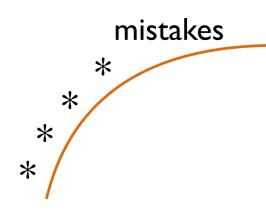




Kremlin security agency to buy typewriters



Russia's agency responsible for the Kremlin security is buying typewriters - a move reportedly prompted by recent leaks by WikiLeaks and Edward Snowden.



bad predictions

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searching for the last ... ?



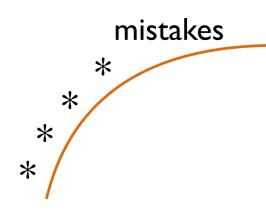


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3-Hofl | 5-deteri



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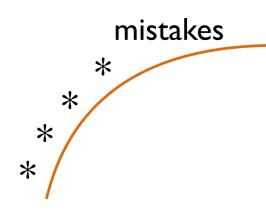
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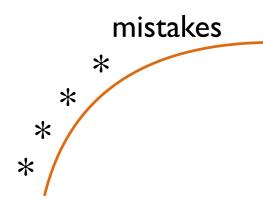
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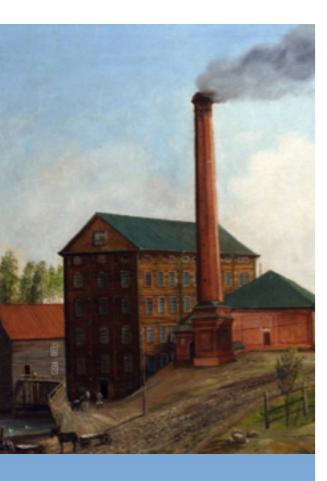
constraint vs resource



coming up
2/17, 3/3:
newspaper,
telegraph



necessary or sufficient?



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HOME TECHNOLOGY SCIENCE ENTERTAINMENT BUSINESS

Arab Spring really was social media revolution

Posted on September 13, 2011 - 06:00 by Kate Taylor

After analyzing more than three million tweets, gigabytes of YouTube content and thousands of blog posts, a new study has concluded that the Arab Spring truly was fueled by social media.



"Our evidence suggests that social media carried a cascade of messages about freedom and democracy across North Africa and the Middle East, and helped raise expectations for the success of political uprising," says Philip

UNBAL

Howard, an associate professor in communication at the University of Washington.



necessary or sufficient?

Mubarak's sons released from Egypt prison: prison officials

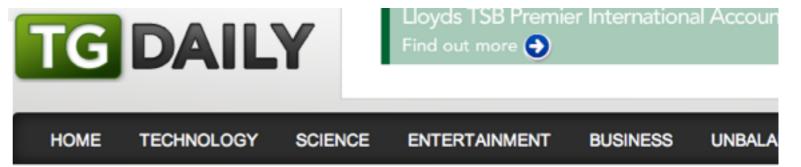




CAIRO (Reuters) -The sons of deposed Egyptian president Hosni Mubarak were released from prison on Monday, prison officials said, a day



Gamal (L) and Alaa Mubarak, sons of former Egyptian President Hosni Mubarak, stand behind bars during ...



Arab Spring really was social media revolution

Posted on September 13, 2011 - 06:00 by Kate Taylor

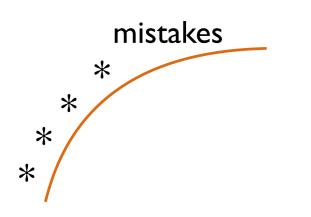
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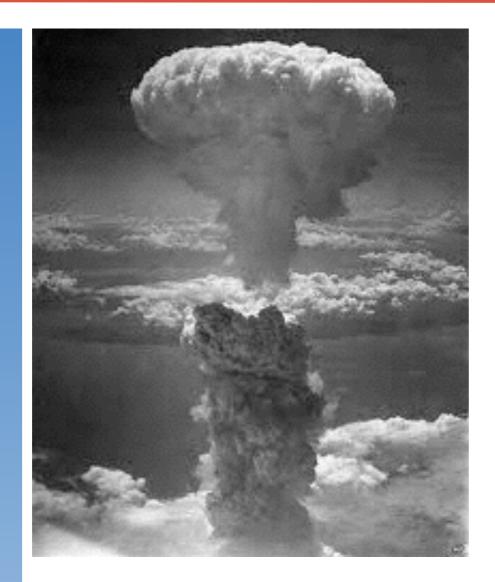
Howard, an associate professor in communication at the University of Washington.

1914: War to end all wars

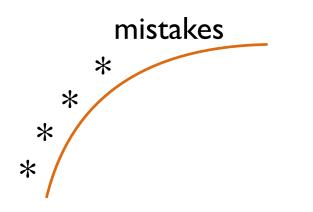


1945: Weapon to end all weapons

backing the wrong horse



1914: War to end all wars



1945: Weapon to end all weapons

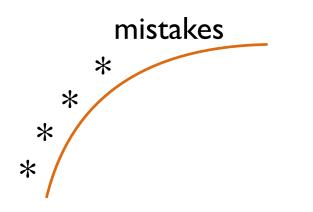
backing the wrong horse



Kalashnikov, Creator of AK-47, Dies at 94



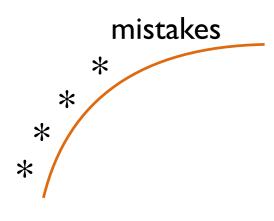
1914: War to end all wars



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backing the wrong horse

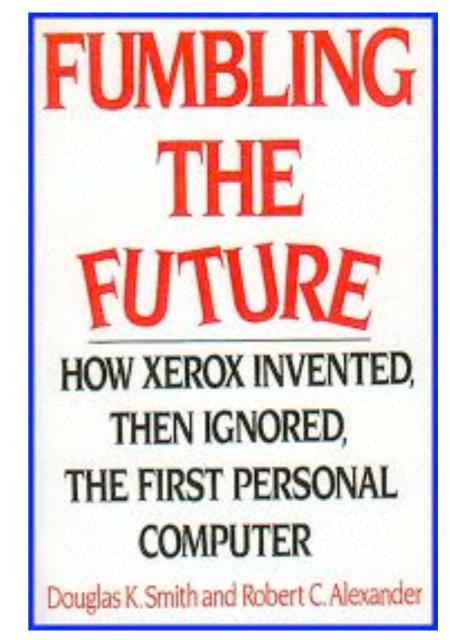


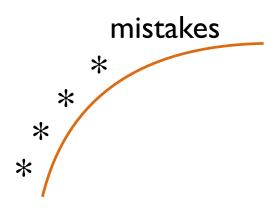


leaving it all to the horse



coming up 4/7: computer revolution



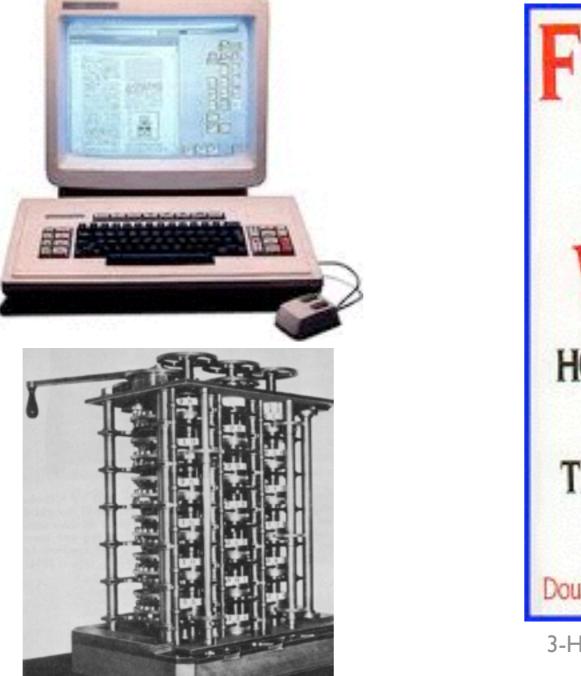


coming up 4/7:

computer

revolution

leaving it all to the horse



MBLING THE FUTURE HOW XEROX INVENTED, THEN IGNORED, THE FIRST PERSONAL COMPUTER Douglas K. Smith and Robert C. Alexander

"Westward the course of empire ..."

techno-superiority

mistakes

*

*

*

H.G. Wells 1866-1946

"And for the rest, those swarms of black, and brown, and dirty-white, and yellow people, who do not come into the new needs of efficiency? Well, the world is not a charitable institution, and I take it they will have to go. The whole tenor and meaning of the world, as I see it, is that they have to go." - H.G.Wells, Anticipations, 1901

Compare: "The spiritual and cultural reservations that the oriental peoples may have toward our technology will avail them not at all." determined mistakes

AFRICA

Edward Tenner, Why Things Bite Back: Technology and the Revenge of Unintended Consequences, 1997

linear thinking

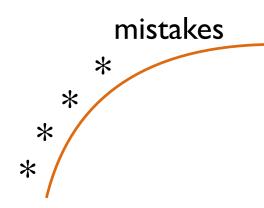
unintended consequences

Meant to Keep Malaria Out, Mosquito Nets Are Used to Haul Fish In





moral hazard



in conclusion

how to think about determinism

what happened?

what was involved?

what did (or did not) come before?

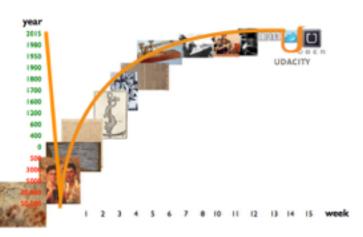
what did (or did not) follow?

what did (or did not) contribute?

what happened elsewhere?

what's likely to be underestimated?

what was necessary. what sufficient?



coming up

29 Jan: First Technologies: Writing

Required Readings

Marshack, Alexander. 1999. "The Art and Symbols of Ice-Age Man, " pp. 5-14 in David Crowley (ed.) Communication in History: Technology, Culture, Society. Allyn & Bacon. Source: Course reader

Gnanadesikan, Amalia E. 2009. The Writing Revolution: Cuneiform to the Internet. Hoboken: Wiley-Blackwell. Read: Chs 1, 2, 4, 12. Source: ebrary [hyperlink ☑]