THE AGE OF OPTIMISTS

A Quantitative Glimpse Of How Silicon Valley Will Transform Political Power and Everyday Life

By Greg Ferenstein

Silicon Valley's political endgame, summarized in 12 visuals

(Beta Draft Version 0.5)

5-Sentence Summary

This is a graphical summary of an online data-driven series about Silicon Valley's political endgame: the path toward overhauling the Democratic Party and orienting our lives toward innovation.

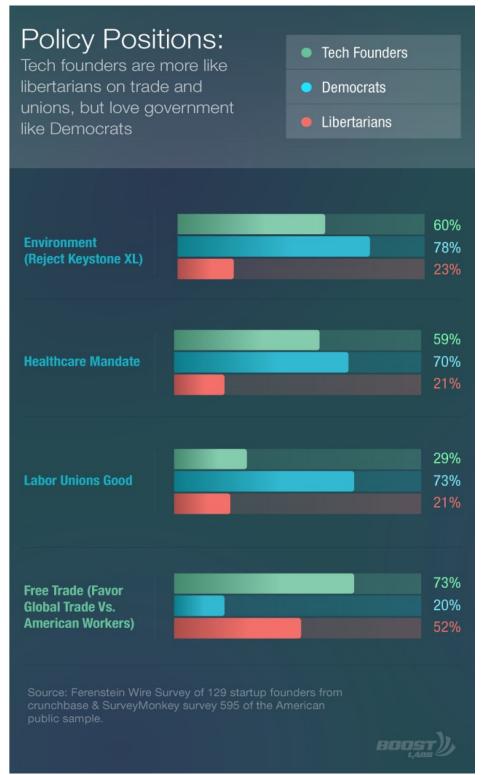
The central argument is that changes in the economy also change the political ideology in power; some personalities and value systems thrive in different occupations and industries. The growth of the knowledge economy has empowered an ancient, idealistic ideology that places an extreme faith in the power of information to solve the world's problems.

A growing demographic of highly-skilled college-educated liberals will transform government's role to be about directly investing in citizens, funding them to become as entrepreneurial, civic, and healthy as possible.

The ultimate goal is to make life as close to the college experience as possible: a life dedicated to research, exploration, and creativity, while automation ensures that everyone has enough food and leisure time to pursue their unique contribution to the world.

A New Political Ideology

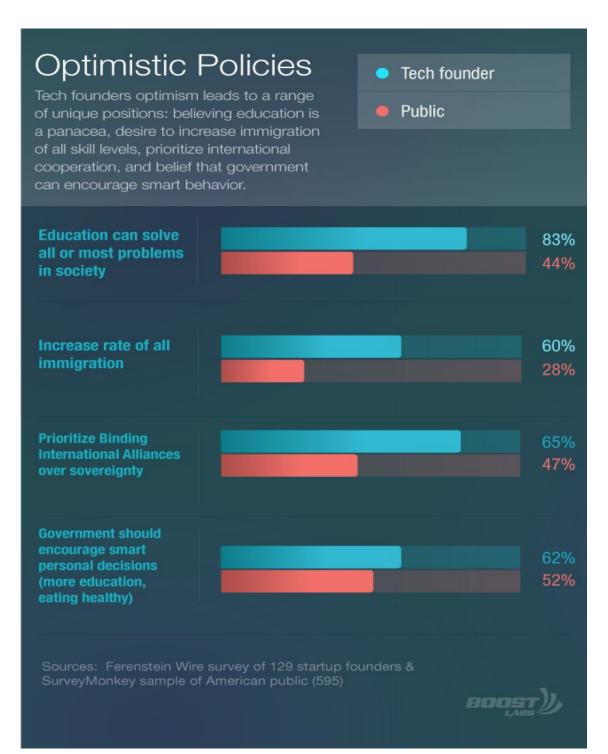
The first representative political opinion poll of startup founders reveals that Silicon Valley represents a novel libertarian-like ideology growing within the Democratic party (<u>Chapter 1</u>).



"Most of Silicon Valley, most of the executives, tend to be Democrats" ~ *Paypal Co-founder, Peter Thiel (personal communication)*

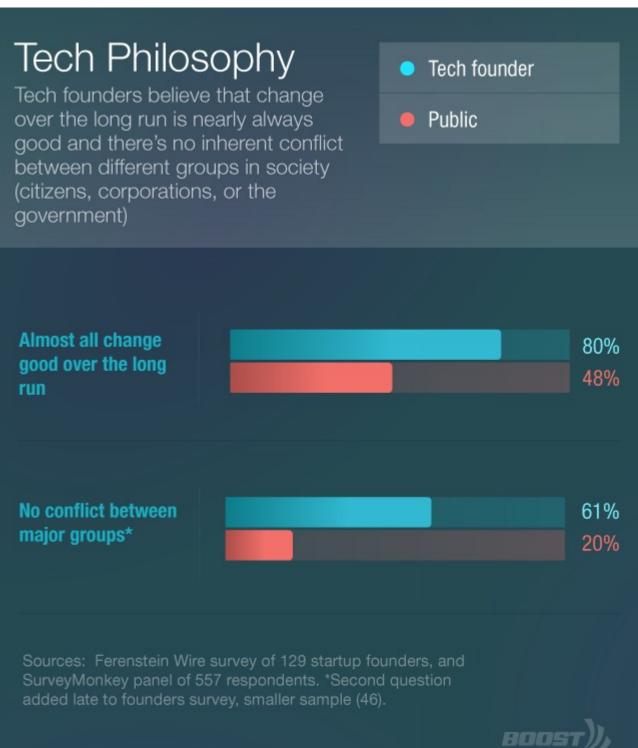
Silicon Valley's vision for government

Technologists want the government to be an investor in citizens, rather than as a protector from capitalism. They want the government to heavily fund education, encourage more active citizenship, pursue binding international trade alliances, and open borders to all immigrants. It combines the meritocracy obsession of libertarians with the collectivism of liberals (<u>Chapter 1</u>).



Silicon Valley's Philosophy

Founders' political and moral beliefs are based on a rather extreme idealism about human nature, society, and the future. The tend to believe all change over the long run ends up being good. Likewise, they reject the notion that there are inherent conflicts of interests between citizens, the government, corporations or other nations.

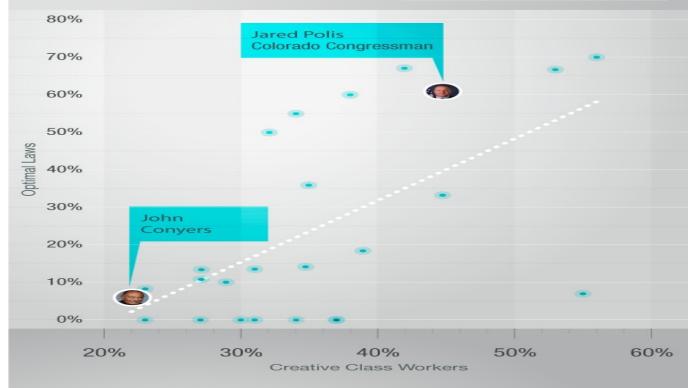


"There's a particular religion that we all represent, and it goes something like this: 'if you take a large number of people and you empower them with communication tools and opportunities to be created, society gets better'. ... the combination of empowerment, innovation, and creativity will be our solution, but that is a religion in-of-itself"

~ Eric Schimdt, Alphabet (Google) Chairman

Correlation

Congressional Democrats representing many high-skilled workers are more likely to author "optimal" laws. "Optimal" bills invest in citizens to become more educated, entreprenerial, and civic. Examples of opposing approaches below.





Jared Polis

Rep. Of Denver, Colorado; Serial Tech Entrepreneur

Authored:

All-STAR Act of 2013: A merit-based funding program for highly experimental charter schools, mandating that the schools' performance and their science curricula be made publically available.



John Conyers

Representative Of Detroit, Michigan; Veteran

Authored:

The "Improved Medicare For All Act" to create a government-run single payer healthcare system. Conyers also opposed a bill to permit crowdfunding of tech startups (JOBS Act) and co-sponsored the controversial Stop Online Piracy Act (SOPA).

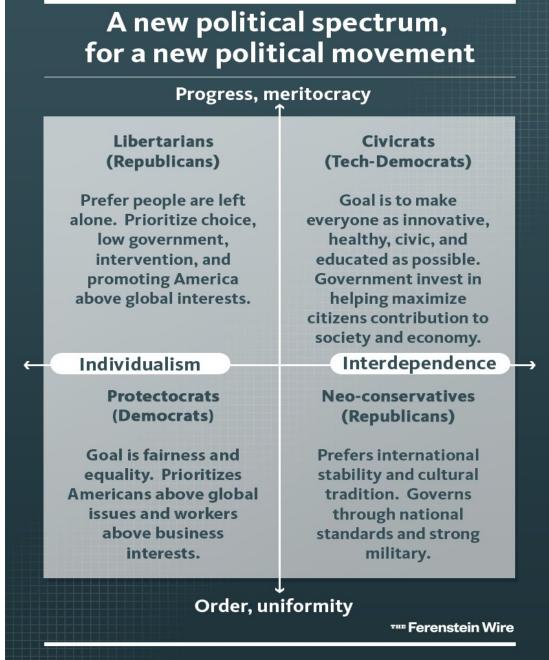
Source: Ferenstein Wire. Coded laws from select House members in 2013. See "methods" for details.



Silicon Valley's Congressional Representatives

In Congress, Democratic members with lots of high-skilled professional constituents are more likely to author laws that promote modernization and maximizing citizens' contribution to society, rather than protect specific demographics from capitalism (<u>Chapter 2</u>).

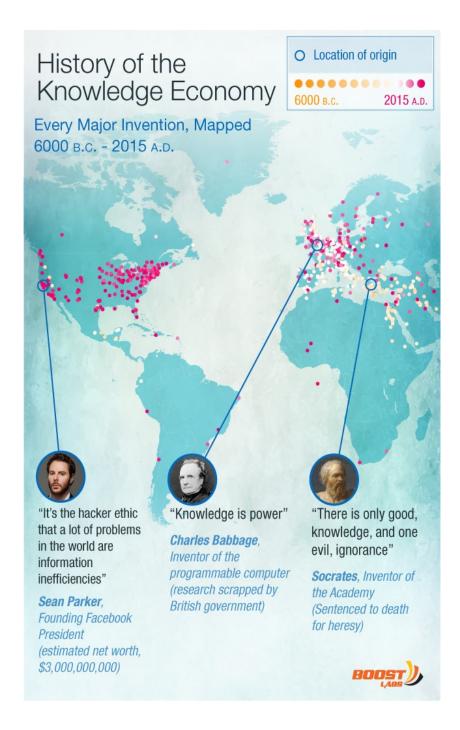
New alliances will form



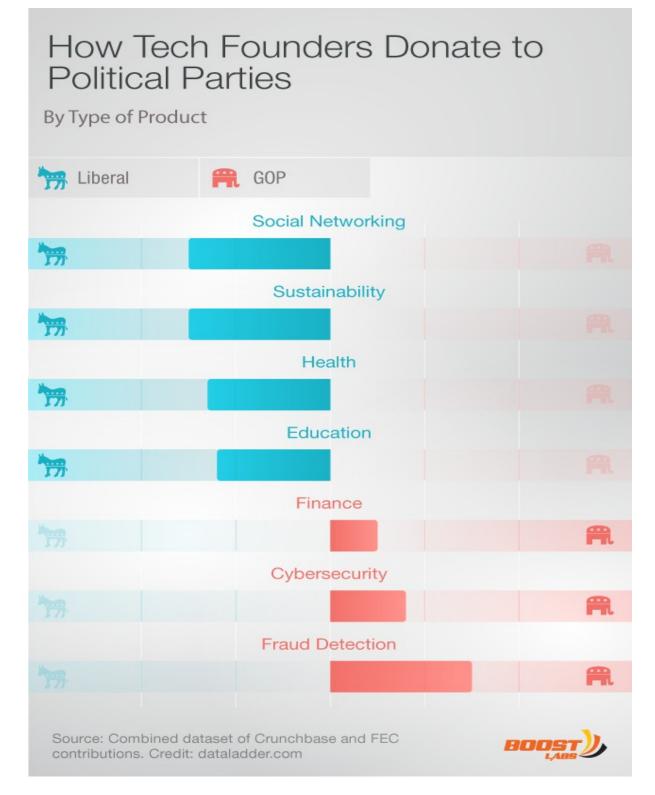
II. Growing Power

An Ancient Ideology, Now A Path To Profitability

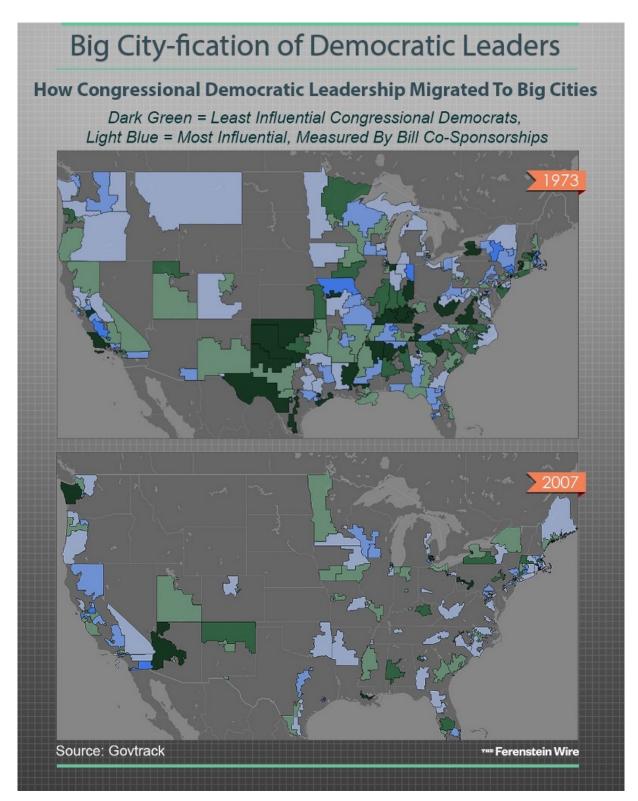
The tech industry is built on an ancient ideology that believes the discovery of new information is the best way to solve social ills (Chapter 7, coming soon).



Founders of information economy startups are far more liberal and wealthier than those who make tools for finance, privacy, or security. Politically, innovators who design products to encourage sharing are more comfortable with collectivist government policies (Chapter 5, coming December 11).

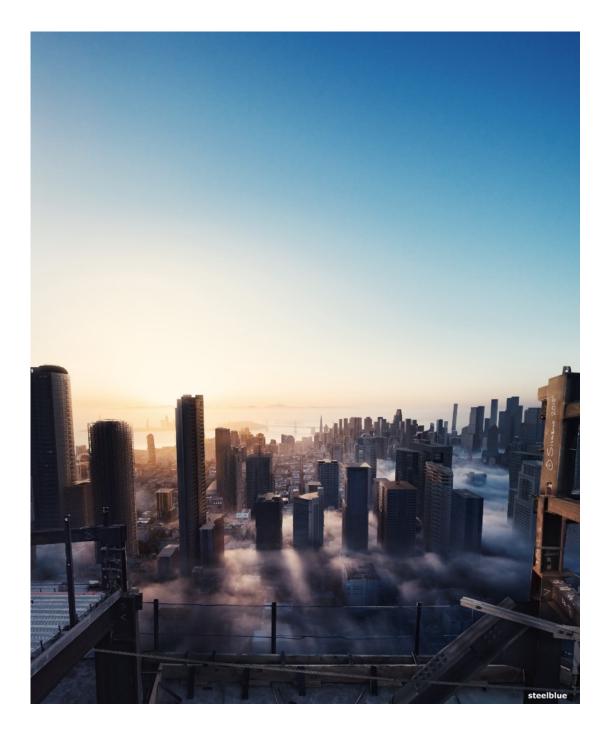


For the past American century, leadership positions in the Democratic party have increasingly gone to congressmen who represent large cities with a greater portion of high-skilled workers than labor unions (<u>Chapter 2</u>).



III. A Glimpse of The Future

Dense cities are home to more innovation and income equality. Many technologists believe urbanization is a moral imperative. A plan to densify the once quaint neighborhoods of San Francisco is a microcosm of the transition much of humanity will undergo as economic forces encourage suburban and rural residents to migrate toward big, dense cities (<u>Chapter 3</u>).



Privacy, as we understand it, is only about 150 years old. For 3,000 years, people have generally chosen convenience or money over privacy—a trend that continues today. Given the extraordinary benefits of new information technologies, especially related to health, most people will likely choose a level of privacy that has existed for most of human history (<u>Chapter 4</u>).

"**Privacy may actually be an anomaly...Privacy is something which has emerged out of the urban boom coming from the industrial revolution**," ~ *Google executive and* 'Godfather' of the military's early Internet prototype, Vinton Cerf



Voluntary Web Tracking (2015)

When AT&T offered a \$30 premium service that allowed users to opt-out of browser tracking for ad targeting, few users took it. This portends a future where most people will increasingly choose ever more invasive tracking in exchange for money, health advice, and entertainment.

Source: The Ferenstein Wire



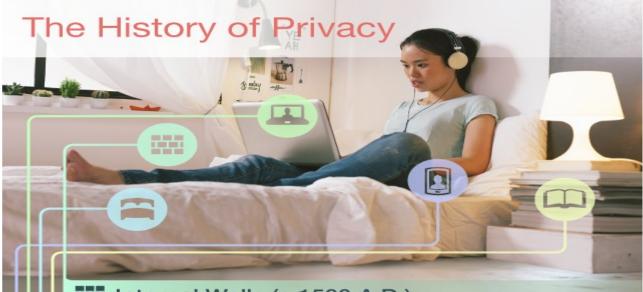
Economically, the technology industry exacerbates inequality between the rich and middle-class, but eradicates poverty by making essential goods freely accessible. Ultimately, this will trend toward a two-class society of extremely wealthy workaholics who create technologies that allow the rest of society to enjoy leisurely prosperity. The cost for this prosperity will be inequality of influence (Chapter 5, coming soon).





The Birth And Death Of Privacy: 3,000 Years of History Told Through 46 Images

2-Minute Summary



Internal Walls (c.1500 A.D.)

Most homes didn't have walls separating rooms until the development of the brick chimney, which needed support beams.

CI Silent Reading (c.1215)

Silent reading was not popular until the Church mandated confessions for the masses; the concept of private salvation ushered in a new habit of silent learning and contemplation. Silent reading would become popular with non-elites ~500 years later when books were cheap enough for individual ownership.

Solo Beds (c.1700)

Beds used to be extraordinarily expensive; many homes only had a single large bed that was shared with the entire family and guests. Sex with others in the room was common.

🔜 Info Privacy (1900s)

Information about citizens was often public, including the first American census. Even though the post office had introduced the first information privacy laws in the 19th century, postcards (without envelopes) were cheaper, and therefore often more popular. "The Right to Privacy" was coined in 1890, inspired by fears of the camera.

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Source: The Ferenstein Wire



• Privacy, as we understand it, is only about 150 years old.

- Humans do have an instinctual desire for privacy. However, for 3,000 years, cultures have nearly always prioritized convenience and wealth over privacy.
- Section II will show how cutting edge health technology will force people to choose between an early, costly death and a world without any semblance of privacy. Given historical trends, the most likely outcome is that we will forgo privacy and return to our traditional, transparent existence.

*This post is part of an online book about Silicon Valley's Political endgame. See all available chapters: medium.com/the-ferenstein-wire/silicon-valley-s-political-endgame-summarized-1f395785f3c1.

Section I:

How privacy was invented slowly over 3,000 years

"Privacy may actually be an anomaly" ~ Vinton Cerf, Co-creator of the military's early Internet prototype and Google executive.

Cerf suffered a <u>torrent of criticism</u> in the media for suggesting that privacy is unnatural. Though he was simply opining on what he believed was an under-the-radar gathering at the Federal Trade Commission in 2013, historically speaking, Cerf is right.

Privacy, as it is conventionally understood, is only about 150 years old. Most humans living throughout history had little concept of privacy in their tiny communities. Sex, breastfeeding, and bathing were shamelessly performed in front of friends and family.

The lesson from 3,000 years of history is that privacy has almost always been a back-burner priority. Humans invariably choose money, prestige or convenience when it has conflicted with a desire for solitude.

This chapter takes a look at how technology shaped desires for privacy over the major epochs of human history.

Tribal Life (~200,000 B.C. to 6,000 B.C)

Rod



"Because hunter-gatherer children sleep with their parents, either in the same bed or in the same hut, there is no privacy. Children see their parents having sex. In the Trobriand Islands, Malinowski was told that parents took no special precautions to prevent their children from watching them having sex: they just scolded the child and told it to cover its head with a mat"

~ UCLA Anthropologist, Jared Diamond

While extremely rare in tribal societies, privacy may, in fact, be instinctive. Evidence from tribal societies suggests that humans prefer to make love in solitude (In 9 of 12 societies where homes have separate bedrooms for parents, people prefer to have sex indoors. In those cultures without homes with separate rooms, sex is more often preferred outdoors).



However, in practice, the need for survival often eclipses the desire for privacy. For instance, among the modern North American Utku's, a desire for solitude can seem profoundly rude:

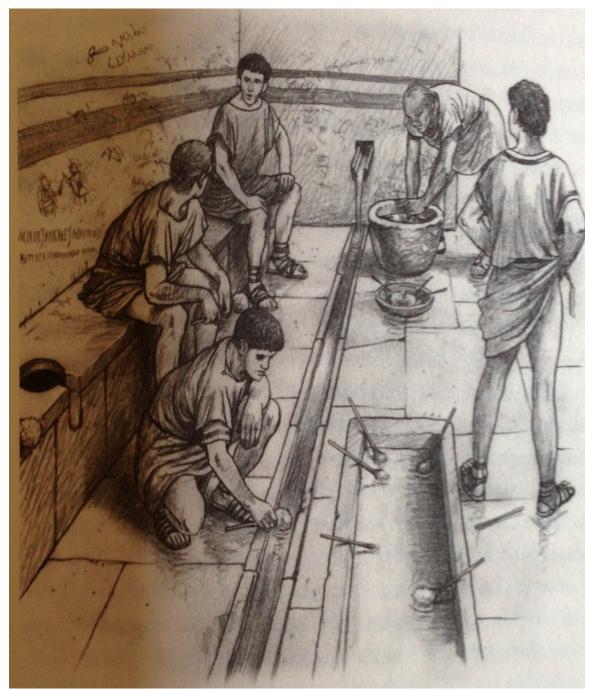
Wikipedia Ansgar Walk

"It dawned on me how forlorn I would be in the wildness if they forsook me. Far, far better to suffer loss of privacy" ~ *Anthropologist Jean Briggs, on being ostracized by her host Utku family, after daring to explore the wilderness alone for a day.*

The big question: if privacy isn't the norm, where did it start? Let's start from the first cities:



Ancient Cities (6th Century B.C.—4th Century AD)



Like their tribal ancestors, the Greeks displayed some preference for privacy. And, unlike their primitive ancestors, the Greeks had the means to do something about it. University of Leicester' Samantha Burke found that the Greeks used their sophisticated understanding of geometry to create housing with the mathematically minimum exposure to public view while maximizing available light.

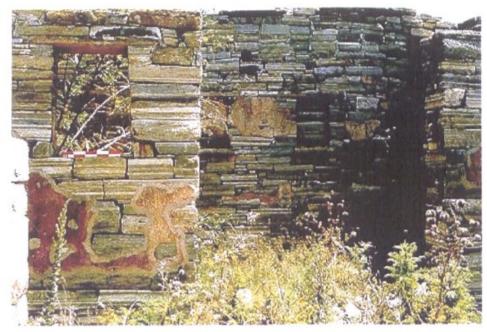


Figure 92: VI Ni window (Scale bar measures 0.50m, total length - *left*)



Burke (2000)

However, Athenians penchant for solitude was not without its influential critics:

"For where men conceal their ways from one another in darkness rather than light, there no man will ever rightly gain either his due honour or office or the justice that is befitting" \sim *Socrates*

Athenian philosophy proved far more popular than their architecture. In Greece's far less egalitarian

successor, Rome, the landed gentry built their homes with wide open gardens. Turning one's house into a public museum was an ostentatious display of wealth. Though, the rich seemed self-aware of their unfortunate trade-off:



"Great fortune has this characteristic, that it allows nothing to be concealed, nothing hidden; it opens up the homes of princes, and not only that but their bedrooms and intimate retreats, and it opens up and exposes to talk all the arcane secrets" ~ *Pliny the Elder*, '*The Natural History*', *circa 77 A.D.*

The majority of Romans lived in crowded apartments, with walls thin enough to hear every noise. "Think of Ancient Rome as a giant campground," writes Angela Alberto in *A Day in the life of Ancient*

https://www.youtube.com/watch?v=HhwXipv3tRU

And, thanks to the Rome's embrace of public sex, there was less of a motivation to make it taboo—especially considering the benefits.



"Baths, drink and sex corrupt our bodies, but baths, drink and sex make life worth living" ~ *graffiti*—*Roman bath*

Early Middle Ages (4th century AD-1,200 AD): Privacy As Isolation



Early Christian saints pioneered the modern concept of privacy: seclusion. The Christian Bible popularized the idea that morality was not just the outcome of an evil deed, but the *intent* to cause harm; this novel coupling of intent and morality led the most devout followers (monks) to remove themselves from society and focus obsessively on battling their inner demons free from the distractions of civilization.

"Just as fish die if they stay too long out of water, so the monks who loiter outside their cells or pass their time with men of the world lose the intensity of inner peace. So like a fish going towards the sea, we must hurry to reach our cell, for fear that if we delay outside we will lost our interior watchfulness"

~ St Antony of Egypt

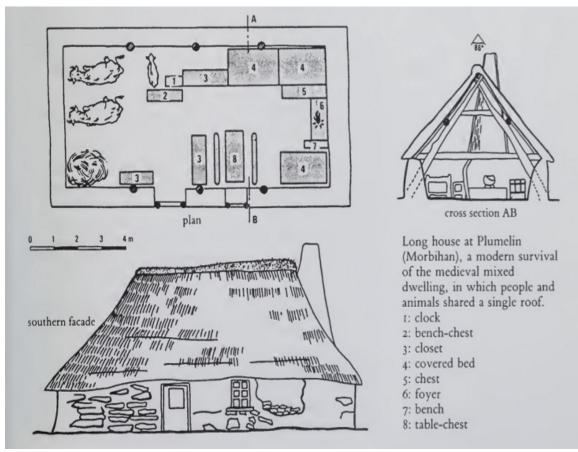
It is rumored that on the island monastery of Nitria, a monk died and was found 4 days later. Monks meditated in isolation in stone cubicles, known as "Beehive" huts.



Wikipedia / Rob Burke

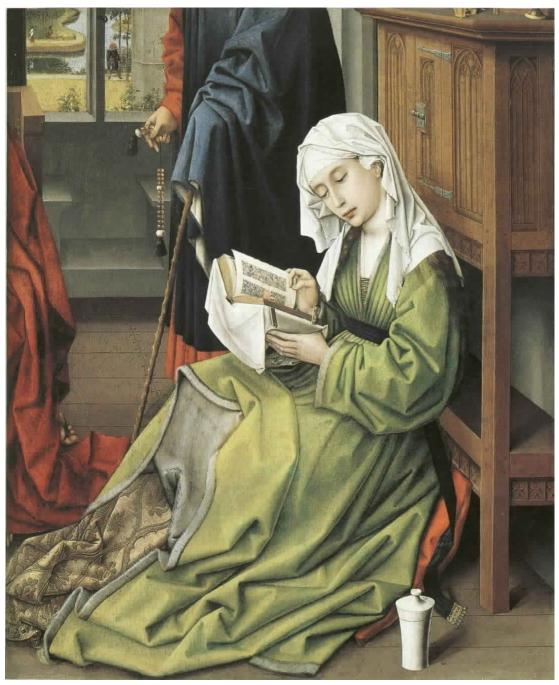
Even before the collapse of ancient Rome in 4th century A.D., humanity was mostly a rural species

A stylized blueprint of the *Lord Of The Rings*-looking shire longhouses, which were popular for 1000 years, **shows animals and humans sleeping under the same room**—because, there was only *one* room.



"There was no classical or medieval latin word equivalent to 'privacy'. privatio meant 'a taking away'" ~ *Georges Duby, author, 'A History Of Private Life: Revelations of the Medieval World*'

Late Medieval/Early Renaissance (1300–1600)—The Foundation Of Privacy Is Built

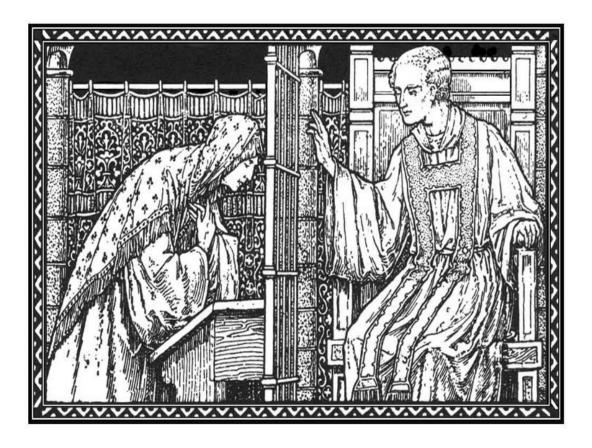


"Privacy—the ultimate achievement of the renaissance" \sim <u>Historian Peter Smith</u>

In 1215, the influential **Fourth Council Of Lateran** (the "Great Council") declared that confessions should be mandatory for the masses. This mighty stroke of Catholic power instantly extended the concept of internal morality to much of Europe.

"The apparatus of moral governance was shifted inward, to a private space that no longer had anything

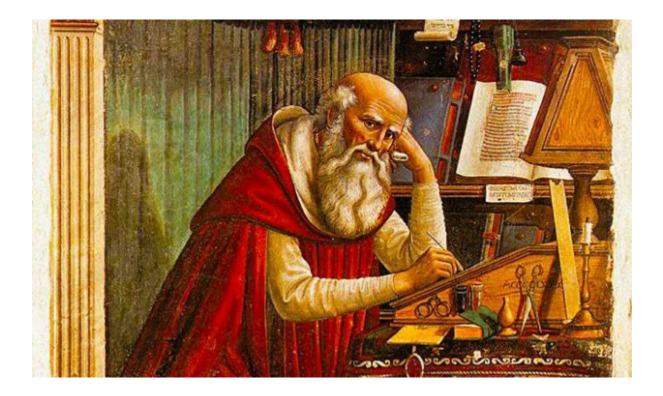
to do with the community," explained religious author, Peter Loy. Solitude had a powerful ally.



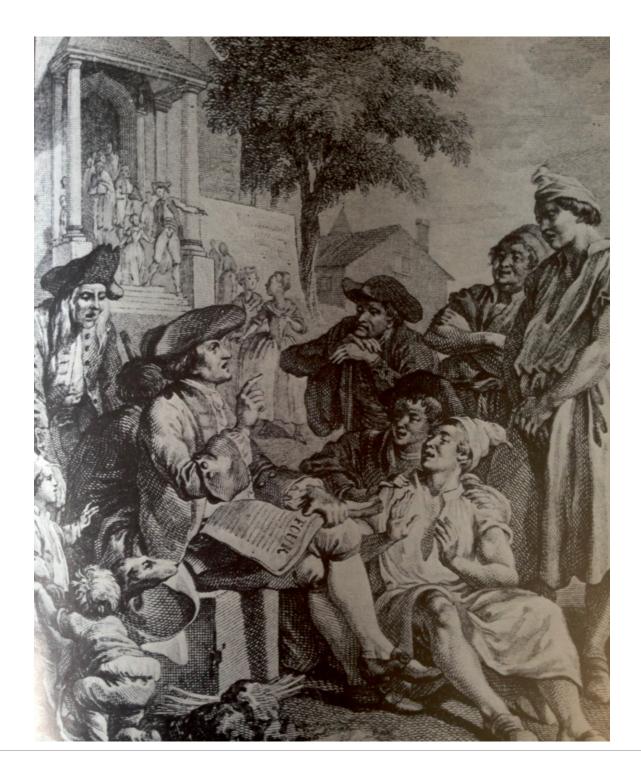
Fortunately for the church, some new technology would make quiet contemplation much less expensive: Guttenberg's printing press



Thanks to the printing presses invention *after* the Great Counsel's decree, personal reading supercharged European individualism. Poets, artists, and theologians were encouraged in their pursuits of "abandoning the world in order to turn one's heart with greater intensity toward God," so recommended the influential canon of The Brethren of the Common Life.



To be sure, up until the 18th century, public readings were still commonplace, a tradition that extended until universal book ownership. Queit study was an elite luxury for many centuries.



The Architecture of privacy

Individual beds are a modern invention. As one of the most expensive items in the home, a single large bed became a place for social gatherings, where guests were invited to sleep with the entire family and some servants.



But, the uncleanness of urbanized life quickly caught up with the Europeans, when infectious diseases wiped out large swaths of newly crowded cities. The Black Death, alone, killed over 100 million people.

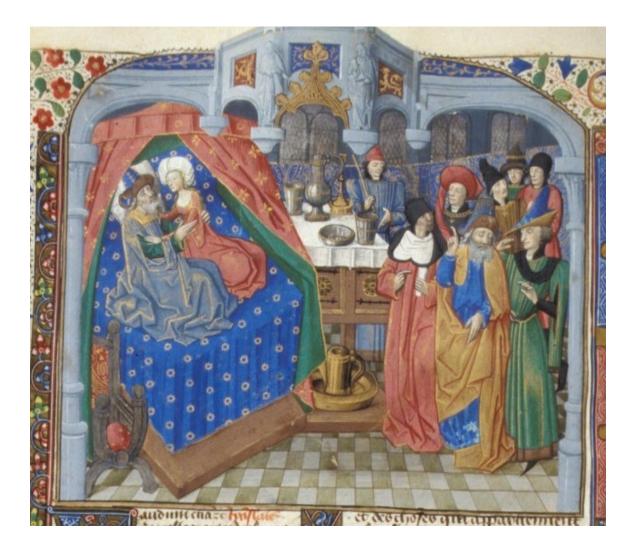


This profoundly changed hygiene attitudes, especially in hospitals, where it was once common for patients to sleep as close together as houseguests were accustomed to.



"Little children, both girls and boys, together in dangerous beds, upon which other patients died of contagious diseases, because there is no order and no private bed for the children, [who must] sleep six, eight, nine, ten, and twelve to a bed, at both head and foot" ~*notes of a nurse (circa 1500), lamenting the lack of modern medical procedures*

Though, just because individual beds in hospitals were coming into vogue, it did not mean that sex was any more private. Witnessing the consummation of marriage was common for both spiritual and logistical reasons:



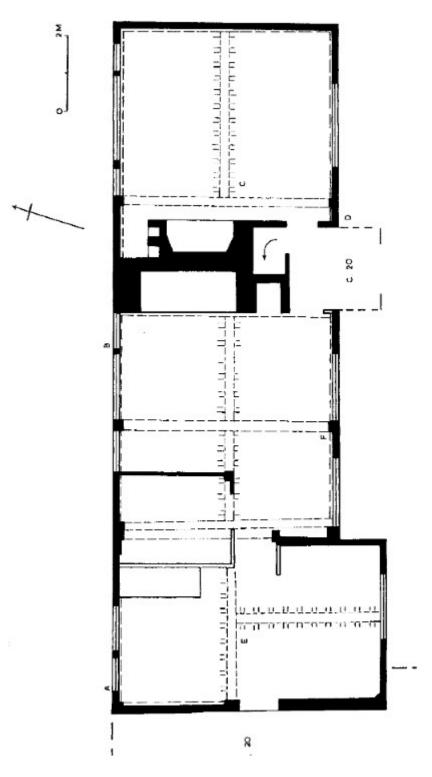
"Newlyweds climbed into bed before the eyes of family and friends and the next day exhibit the sheets as proof that the marriage had been consummated" ~ *Georges Duby, Editor, 'A History of Private Life'*

Few people demanded privacy while they slept because even separate beds wouldn't have afforded them the luxury. Most homes only had *one* room. Architectural historians trace the origins of internal walls to the more basic human desire to be warm.

Below, in the video, is a Hollywood re-enactment of couples sleeping around the burning embers of a central fire pit, from the film, *Beowulf*. It's a solid illustration of the grand hall open architecture that was pervasive before the popularization of internal walls circa 1,400 A.D.

"Firstly, I propose that there be a room common to all in the middle, and at its centre there shall be a fire, so that many more people can get round it and everyone can see the others faces when engaging in their amusements and storytelling"—15th century Italian Architect, Sebastian Serlio

To disperse heat more efficiently without choking houseguests to death, fire-resistant chimney-like structures were built around central fire pits to reroute smoke outside. Below is an image of a "transitional" house during the 16th century period when back-to-back fireplaces broke up the traditional open hall architecture.



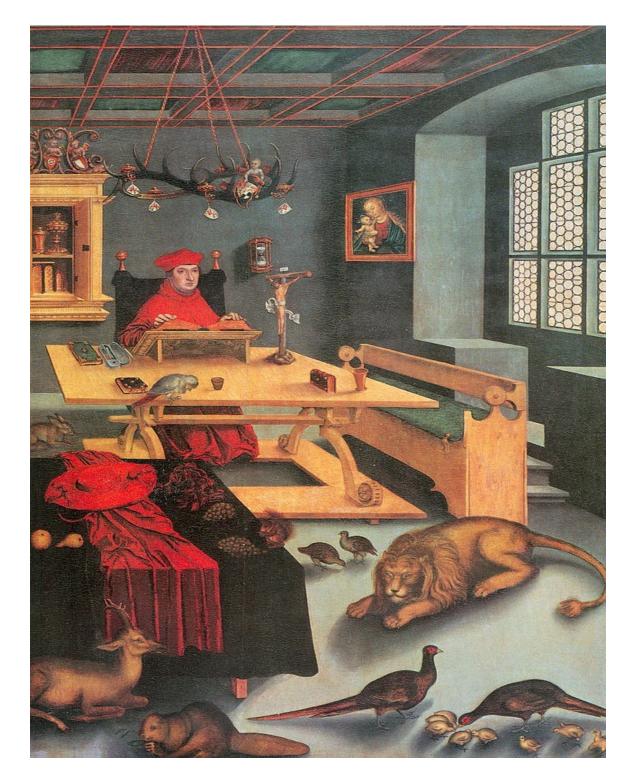
"A profound change in the very blueprint of the the living space" ~ *historian Sarti*

Raffaella, on the introduction of the chimney.

Pre-industrial revolution (1600–1840)—The home becomes private, which isn't very private



The first recorded daily diary was composed by Lady Margaret Hoby, who lived just passed the 16th century. On February 4th, 1600, she writes that she retired "**to my Closit**, wher I praid and **Writt some thinge for mine** owne **priuat Conscience's**".



Cardinal Albrecht of Brandenburg in his study

By the renaissance, it was quite common for at least the wealthy to shelter themselves away in the home. Yet, even for those who could afford separate spaces, it was more logistically convenient to live in close quarters with servants and family.

"Having served in the capacity of manservant to his Excellency Marquis Francesco

Albergati for the period of about eleven years, that I can say and give account that on three or four occasions **I saw the said marquis getting out of bed with a perfect erection of the male organ**" ~ 1751, Servant of Albergati Capacelli, testifying in court that his master did not suffer from incontinence, thus rebutting his wife's legal suit for annulment.

Law

It was just prior to the industrial revolution that citizens, for the first time, demanded that the law begin to keep pace with the evolving need for secret activities.

In this early handwritten note on August 20th, 1770, revolutionist and future President of the United States, **John Adams**, voiced his support for the concept of privacy.

"I am under no moral or other Obligation...to publish to the World how much my Expences or my Incomes amount to yearly."

good Gomm upon Earth with all of the From the Adams Family Papers, Massachusetts Historical Society. Not to be reproduced without permission.

Despite some high-profile opposition, the first American Census was posted publicly, for logistics reasons, more than anything else. Transparency was the best way to ensure every citizen could inspect it for accuracy.

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Privacy-conscious citizen did find more traction with what would become perhaps **America's first privacy law, the 1710 Post Office Act**, which banned sorting through the mail by postal employees.

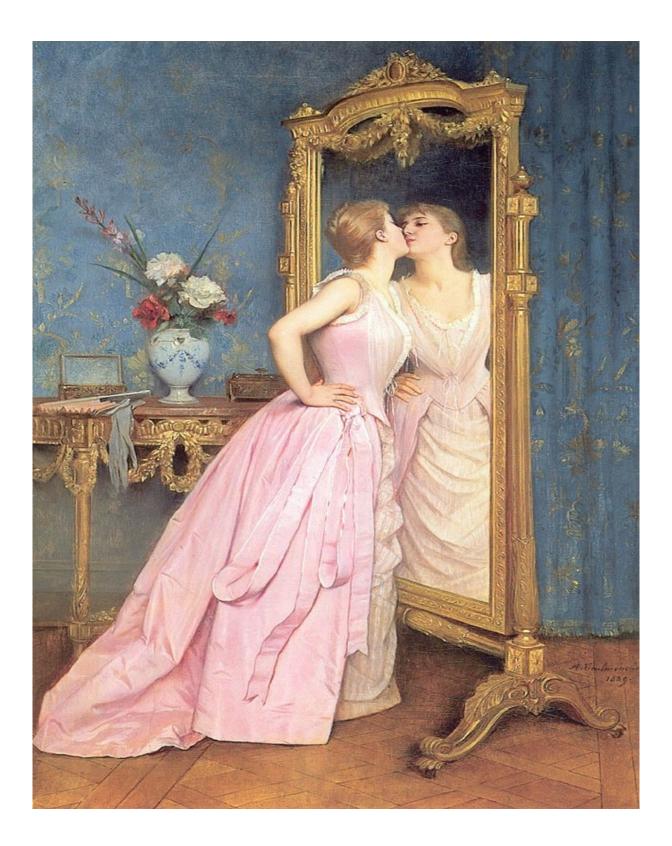
"I'll say no more on this head, but When I have the Pleasure to See you again, shall Inform you of many Things too tedious for a Letter and which perhaps may fall into Ill hands, for I know there are many at Boston who dont Scruple to Open any Persons letters, but they are well known here." ~ *Dr. Oliver Noyes, lamenting the well-known fact that mail was often read.*

This fact did not stop the mail's popularity

Gilded Age: 1840–1950—Privacy Becomes The Expectation

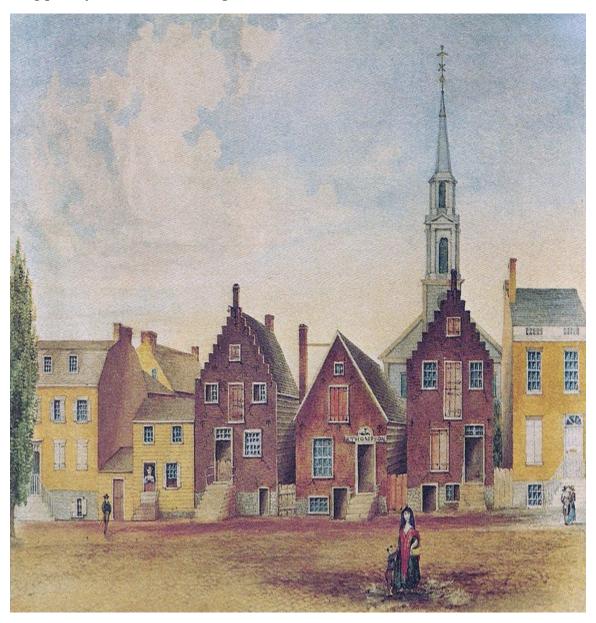
"Privacy is a distinctly modern product" ~ E.L. Godkin, 1890





"In The Mirror, 1890" by Auguste Toulmouche

By the time the industrial revolution began serving up material wealth to the masses, officials began recognizing privacy as the default setting of human life.



Wikipedia user MattWade

"The material and moral well-being of workers depend, the health of the public, and the security of society depend on each family's living in a separate, healthy, and convenient home, which it may purchase" ~ *speaker at 1876 international hygiene congress in Brussels*

For the poor, however, life was still very much on display. The famous 20th-century existentialist philosopher Jean Paul-Satre observed the poor streets of Naples:



"The ground floor of every building contains a host of tiny rooms that open directly onto the street and each of these tiny rooms contains a family...they drag tables and chairs out into the street or leave them on the threshold, half outside, half inside...outside is organically linked to inside...yesterday i saw a mother and a father dining outdoors, while their baby slept in a crib next to the parents' bed and an older daughter did her homework at another table by the light of a kerosene lantern...if a woman falls ill and stays in bed all day, it's open knowledge and everyone can see her."

Insides of houses were no less cramped:



The "Right To Privacy " is born

While architecture failed to keep up with society, it was during the Gilded Age that privacy was officially acknowledged as a political right.

HARVARD REVIEW. LAW

VOL. IV.

DECEMBER 15, 1890.

NO. 5.

THE RIGHT TO PRIVACY.

" It could be done only on principles of private justice, moral fitness, and public convenience, which, when applied to a new subject, mak common law without a precedent; much more when received and approved by usage."

WILLES, J., in Millar v. Taylor, 4 Burr. 2303, 2312.

THAT the individual shall have full protection in person and in property is a principle as old as the common law; but it has been found necessary from time to time to define anew the exact nature and extent of such protection. Political, social, and economic changes entail the recognition of new rights, and the common law, in its eternal youth, grows to meet the demands of society. Thus, in very early times, the law gave a remedy only for physical interference with life and property, for trespasses vi et armis. Then the "right to life" served only to protect the subject from battery in its various forms; liberty meant freedom from actual restraint ; and the right to property secured to the individual his lands and his cattle. Later, there came a recognition of man's spiritual nature, of his feelings and his intellect. Gradually the scope of these legal rights broadened; and now the right to life has come to mean the right to enjoy life,- the right to be let alone; the right to liberty secures the exercise of extensive civil privileges ; and the term "property" has grown to comprise every form of possession - intangible, as well as tangible.

Thus, with the recognition of the legal value of sensations, the protection against actual bodily injury was extended to prohibit mere attempts to do such injury; that is, the putting another in

"The intensity and complexity of life, attendant upon advancing civilization, have rendered necessary some retreat from the world, and man, under the refining influence of culture, has become more sensitive to publicity, so that solitude and privacy have become more

essential to the individual; but modern enterprise and invention have, through invasions upon his privacy, subjected him to mental pain and distress, far greater than could be inflicted by mere bodily injury." ~ "The Right To Privacy" ~ December 15, 1980, Harvard Law Review

Interestingly enough, the right to privacy was justified on the very grounds for which it is now so popular: technology's encroachment on personal information.

However, the father of the right to privacy and future Supreme Court Justice, Louis Brandeis, was ahead of his time. His seminal article did not get much press—and the press it did get wasn't all that glowing.

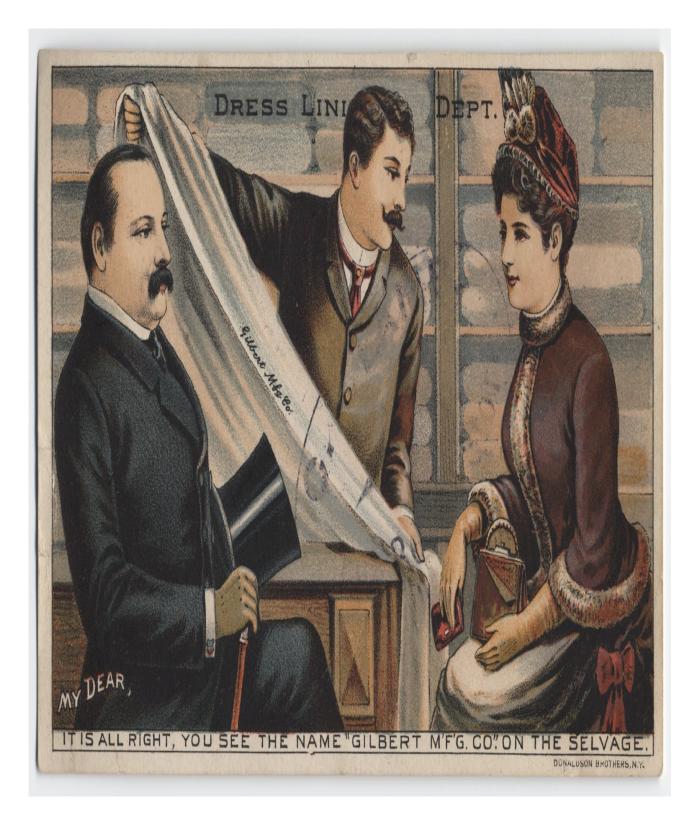
The feelings of these thin-skinned Americans are doubtless at the bottom of an article in the December number of the *Harvard Law Review*, in which two members of the Boston bar have recorded the results of certain researches into the question whether Americans do not possess a common-law right of privacy which can be successfully defended in the courts. ~ *Galveston Daily News on 'The Right To Privacy'*

Privacy had not helped America up to this point in history. Brazen invasions into the public's personal communications had been instrumental in winning the Civil War.

This is a letter from the Secretary of War, Edwin Stanton, requesting broad authority over telegraph lines; Lincoln simply scribbled on the back "The Secretary of War has my authority to exercise his discretion in the matter within mentioned. A. LINCOLN."

It wasn't until the industry provoked the ire of a different president that information privacy was codified into law. President Grover Cleveland had a wife who was easy on the eyes. And, easy access to her face made it ideal for commercial purposes.

mar Department Marhungton Jamy, 24, 18ha Prejudent my opinion the Succes of Mulilary Operation and the Serve Charges require Minau made others . Jane and Sauchan them



The rampant use of President Grover Cleveland's wife, Frances, on product advertisements, eventually led to the one of the nation's first privacy laws. The New York legislature made it a penalty to use someone's unauthorized likeness for commercial purposes in 1903, for a fine of up to \$1,000.

Indeed, for most of the 19th century, privacy was practically upheld as a way of maintaining a man's

ownership over his wife's public and private life—including physical abuse.

"We will not inflict upon society the greater evil of raising the curtain upon domestic privacy, to punish the lesser evil of trifling violence"~ *1868, State V. Rhodes, wherein the court decided the social costs of invading privacy was not greater than that of wife beating.*



The Technology of Individualism

The first 150 years of American life saw an explosion of information technology, from the postcard to the telephone. As each new communication method gave a chance to peek at the private lives of strangers and neighbors, Americans often (reluctantly) chose whichever technology was either cheaper or more convenient.

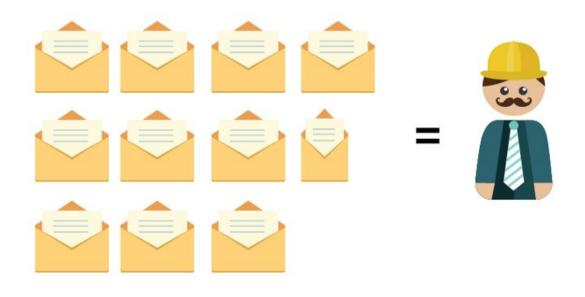
Privacy was a secondary concern.

24 THIS SPACE FOR COMMUNICATION ONT A look under stamp Mr. Earl Shy

"There is a lady who conducts her entire correspondence through this channel. She reveals secrets supposed to be the most pro- found, relates misdemeanors and indiscretions with a reckless disregard of the consequences. Her confidence is unbounded in the integrity of postmen and bell-boys, while the latter may be seen any morning, sitting on the doorsteps of apartment houses, making merry over the post-card correspondence." ~ *Editor, the Atlantic Monthly, on Americas of love of postcards, 1905*

Even though postcards were far less private, they were convenient. More than 200,000 postcards were ordered in the first two hours they were offered in New York City, on May 15, 1873.

By 1908, the Post Office had sent 7.5 post cards for every one person in America (670MM vs. 90 MM)



The next big advance in information technology, the telephone, was a wild success in the early 20th century. However, individual telephone lines were prohibitively expensive; instead, neighbors shared one line, known as "party lines." Commercial ads urged neighbors to use the shared technology with "courtesy".

PARTY LINES

help bring telephone service sooner

IT'S MARY!

SHE HAS HE

TELEPHONEI

We'RE ADDING TELEPHONE EQUIPMENT... switchboards and wire, poles and cable ... at a record-breaking pace.

Party-line service ... sharing the line ... makes it possible for this new equipment to serve the greatest number of people.

That's why, in most communities, we're installing new residence telephones on party lines only.

Party-line service is good service, too, especially when party-line neighbors share the line with courtesy and consideration for others.



THE DIAMOND STATE TELEPHONE COMPANY

But, as this comic shows, it was common to eavesdrop.



"Party lines could destroy relationships...if you were dating someone on the party line and got a call from another girl, well, the jig was up. Five minutes after you hung up, everybody in the neighborhood —including your girlfriend—knew about the call. **In fact, there were times when the girlfriend butted in and chewed both the caller and the callee out**. Watch what you say." ~ *Author, Donnie Johnson*



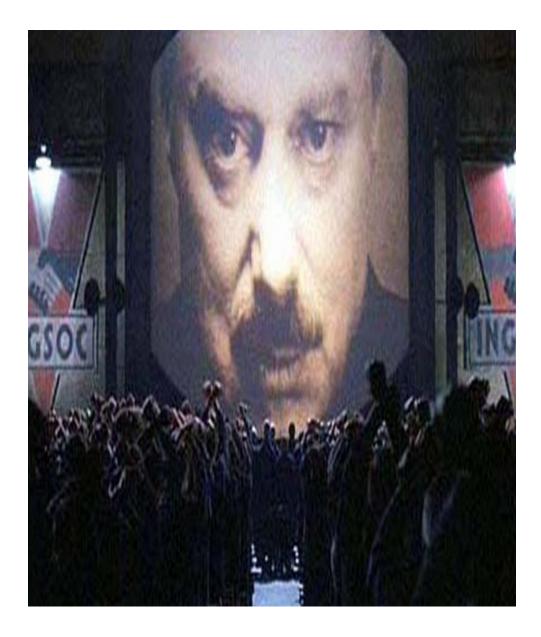
Where convenience and privacy found a happy co-existence, individualized gadgets flourished. Listening was not always an individual act. The sheer fact that audio was a form of broadcast made listening to conversations and music a social activity. This all changed with the invention of the headphone.



"The triumph of headphones is that they create, in a public space, an oasis of privacy"~ *The Atlantic's libertarian columnist, Derek Thompson.*

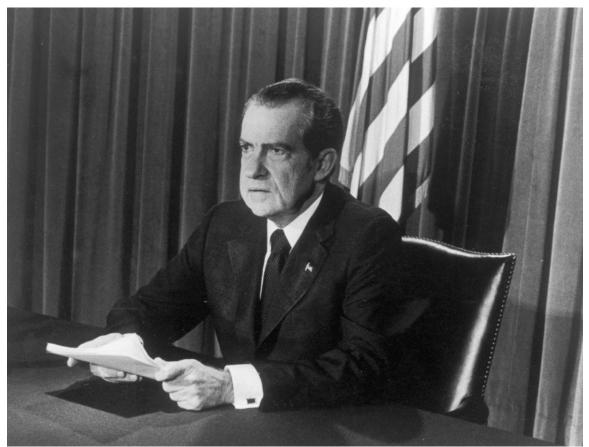
Late 20th Century—Fear of a World Without Privacy

By the 60's, individualized phones, rooms, and homes became the norm. 100 years earlier, when Lincoln tapped all telegraph lines, few raised any questions. In the new century, invasive surveillance would bring down Lincoln's distant successor, even though his spying was far less pervasive.



Upon entering office, the former Vice-President assured the American people that their privacy was safe.

"As Vice President, I addressed myself to the individual rights of Americans in the area of privacy...There will be no illegal tappings, eavesdropping, bugging, or break-ins in my administration. There will be hot pursuit of tough laws to prevent illegal invasions of privacy in both government and private activities." ~ Gerald Ford



Justice Brandeis had finally won

2,000 A.D. and beyond—a grand reversal

In the early 2,000s, young consumers were willing to purchase a location tracking feature that was once the stuff of *1984* nightmares.

"The magic age is people born after 1981...That's the cut-off for us where we see a big change in privacy settings and user acceptance." ~ *Boost Mobile CEO Sam Altman, who pioneered paid geo-location features.*

https://www.youtube.com/watch?v=ew94okDkCwU

The older generations' fear of transparency became a subject of mockery.

"My grandma always reminds me to turn my GPS off a few blocks before I get home "so that the man giving me directions doesn't know where I live." ~ *a letter to the editor of College Humor's "Parents Just Don't Understand" series.*

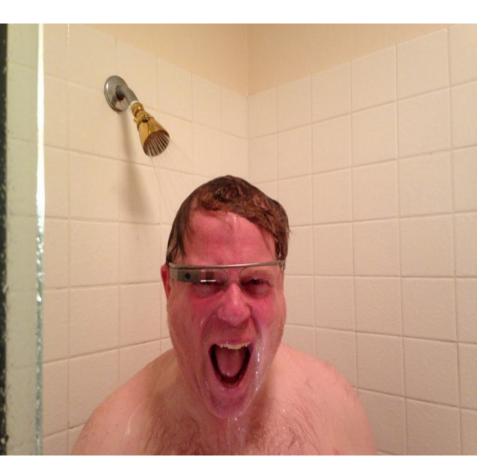
Increased urban density and skyrocketing rents in the major cities has put pressure on communal living.



"We're seeing a shift in consciousness from hyper-individualistic to more cooperative spaces...We have a vision to raise our families together." ~ *Jordan Aleja Grader, San Francisco resident*

At the more extreme ends, a new crop of so-called "life bloggers" publicize intimate details about their days:

At the edges of transparency and pornography, anonymous exhibitionism finds a home on the web, at the wildly popular content aggregator, Reddit, in the aptly titled community "Gone Wild".



Section II: How privacy will again fade away

For 3,000 years, most people have been perfectly willing to trade privacy for convenience, wealth or fame. It appears this is still true today.

AT&T recently rolled out a discounted broadband internet service, where customers could pay a mere \$30 more a month to not have their browsing behavior tracked online for ad targeting.

"Since we began offering the service more than a year ago the vast majority have elected to opt-in to the ad-supported model." $\sim AT \& T$ spokeswoman Gretchen Schultz (personal communication)

Performance artist Risa Puno <u>managed</u> to get almost half the attendees at an Brooklyn arts festival to trade their private data (image, fingerprints, or social security number) for a delicious cinnamon cookie. Some even proudly tweeted it out.



Tourists on Hollywood Blvd willing gave away their passwords to on live TV for a split-second of TV fame on Jimmy Kimmel Live.







•

Jimmy Kimmel Live 🖾

Even for holdouts, the costs of privacy may be too great to bear. With the advance of cutting-edge health technologies, withholding sensitive data may mean a painful, early death.

For instance, researchers have already discovered that if patients of the deadly Vioxx drug had shared their health information publicly, statisticians could have detected the side effects earlier enough to save 25,000 lives.

As a result, Google's Larry Page has embarked on a project to get more users to share their private health information with the academic research community. While Page told a crowd at the TED conference in 2013 that he believe such information can remain anonymous, statisticians are doubtful.

"We have been pretending that by removing enough information from databases that we can make people anonymous. We have been promising privacy, and this paper demonstrates that for a certain percent of a population, those promises are empty," ~ John Wilbanks of Sage Bionetworks, on a new academic paper that identified anonymous donors to a genetics database, based on public information

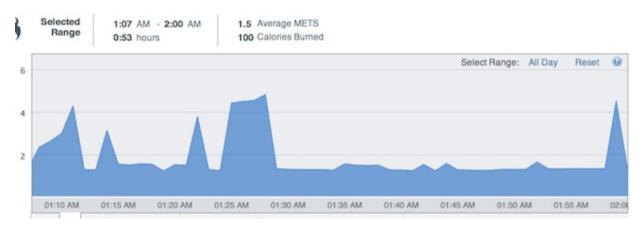
Speaking as a statistician, it is quite easy to identify people in anonymous datasets. There are only so many 5'4" jews living in San Francisco with chronic back pain. Every bit of information we reveal about ourselves will be one more disease that we can track, and another life saved.

If I want to know whether I will suffer a heart attack, I will have to release my data for public research. In the end, privacy will be an early death sentence.

Already, health insurers are beginning to offer discounts for people who wear health trackers and let others analyze their personal movements. Many, if not most, consumers in the next generation will choose cash and a longer life in exchange for publicizing their most intimate details.

What can we tell with basic health information, such as calories burned throughout the day? Pretty much everything.

With a rudimentary step and calorie counter, I was able to distinguish whether I was having sex or at the gym, since the minute-by-minute calorie burn profile of sex is quite distinct (the image below from my health tracker shows lots of energy expended at the beginning and end, with few steps taken. Few activities besides sex have this distinct shape)



More advanced health monitors used by insurers are coming, like embedded sensors in skin and clothes that detect stress and concentration. The markers of an early heart attack or dementia will be the same that correspond to an argument with a spouse or if an employee is dozing off at work.

No behavior will escape categorization—which will give us unprecedented superpowers to extend healthy life. Opting out of this tracking—if it is even possible—will mean an early death and extremely pricey health insurance for many.

If history is a guide, the costs and convenience of radical transparency will once again take us back to our roots as a species that could not even conceive of a world with privacy.

It's hard to know whether complete and utter transparency will realize a techno-utopia of a more honest and innovative future. But, given that privacy has only existed for a sliver of human history, it's disappearance is unlikely to doom mankind. Indeed, transparency is humanity's natural state.