information & the state

or "the informational state"

Paul &

Elaine

concepts of
information

March 12,
2015

coming and going

Objective information

independent, transferable, interpreter neutral,
"true to nature," autonomous …

a-separated phrases: | create information,find information ▾ | ☐ case-insensitive

nd | 2000 | from the corpus | English ⬍ | with smoothing of | 3 ⬍ | . | **Search lots of books**

what then of "making" information?

find information

create information

| 00 | 1820 | 1840 | 1860 | 1880 | 1900 | 1920 | 1940 | 1960 | 1980 | 2000 |

the hard work of creation

"An immense amount of physical and intellectual work is needed to create even the most simple statistical fact--indeed, the simpler a fact is, the more refinement, and therefore the more effort, is necessary. This aspect was noticed early on in the history of statistics, not least by Charles Babbage: facts have to be *manufactured*"

--John Agar, *The Government Machine*, 2003

informational state

Giddens

accumulating/storing

Scott & Co

making visible, standardizing, reducing

uncertainty

pull to push

from accumulating to providing information

state making

An act concerning...

1. public archive
2. state printer
3. pilots for SF
4. comptroller
5. treasurer
6. Sec. of state
8. translator
11. AG
14. Supreme Court
30. incorporation of cities
36. commissioner of deeds
41. notaries
49. lawful fences

48. incorporation of towns
53. weights & measures
55. limited partners
59. recorder's office
64. officers of health
67. surveyors
69. librarian
72. register of wills
89. marks & brands
90. reporter
93. conveyances
95. common law
117. incorp. of colleges
123. assayer

Statutes of California, 1849-50

feet 'n' inches

yards (rods, poles/perches)

furlongs

acres

miles

nautical miles

ounces

pounds (both lbs & £s)

stones

hundredweights

tons

pints

Fahrenheit

dates 6/7

shoe sizes ...

state sanctioned?

Men's Size Conversions

US Sizes	Euro Sizes	UK Sizes	Inches	CM
6	39	5.5	9.25"	23.5
6.5	39	6	9.5"	24.1
7	40	6.5	9.625"	24.4
7.5	40-41	7	9.75"	24.8
8	41	7.5	9.9375"	25.4
8.5	41-42	8	10.125"	25.7
9	42	8.5	10.25"	26
9.5	42-43	9	10.4375"	26.7
10	43	9.5	10.5625"	27

A

P L A N

FOR

INTRODUCING AN UNIFORMITY

OF

WEIGHTS AND MEASURES

WITHIN THE LIMITS OF THE

BRITISH EMPIRE.

By the late SIR JAMES STEUART, BART.

Author of the Political Economy.

PUBLISHED FROM THE ORIGINAL MANUSCRIPT

By his Son, Sir J. STEUART, Bart. M. P.

LONDON:

Printed for JOHN STOCKDALE, opposite Burlington House, Piccadilly.—1790.

ARID REGION OF THE
UNITED STATES
Showing Drainage Districts

"Weights and measures, once established, survive the greatest **revolutions**."
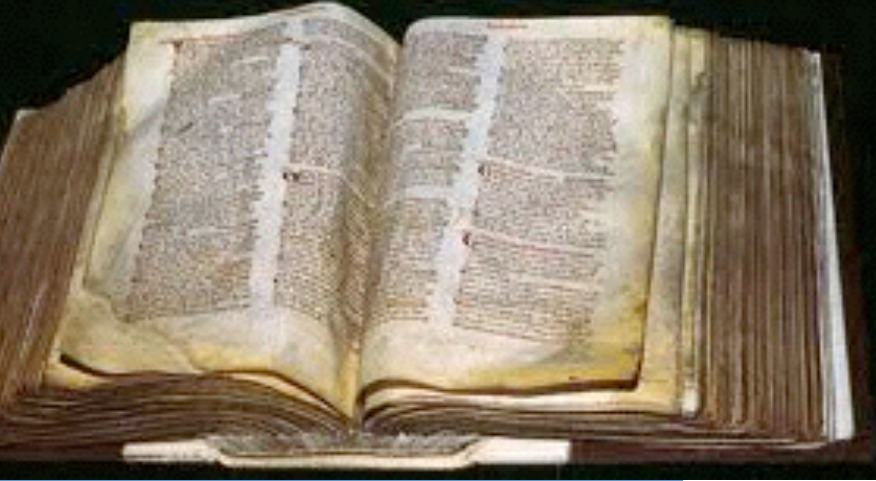
"the permanent patronym would take its place beside ... other 'optical technologies" ... weights & measures ... legal code ... cadastral maps ...property registers .. tax code, a common currency ... standard dialect,"   —Scott et al

states of information

Bethlehem

Domesday

surveying

registering

storing

pull & push
citizenship, taxation, recruiting, property

O'REILLY

Radar   INSIGHT, ANALYSIS, AND RESEARCH
           ABOUT EMERGING TECHNOLOGIES

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Data   More Topics ▼

Year Zero: Our life timelines begin
In the next decade, Year Zero will be how big data reaches
everyone and will fundamentally change how we live.
by Alistair Croll | @acroll | +Alistair Croll | Comments: 9 | March 3, 2015

invisible chains

"sailors ... trace their family .. .names upon the
wrist ... If it were possible for such a practice to
become universal ... Who are you? ... no room for
prevarication in the answer ... men were thus held as
it were by an invisible chain."   -- Jeremy Bentham,

Principles of Penal Law [1843]

"The use of computer-generated bar codes on the
wrist- bands and identity cards, read by laser guns,
allow camp officials to monitor the refugees and the
distribution of rations more efficiently."

— Scott & Co

"papermongers"

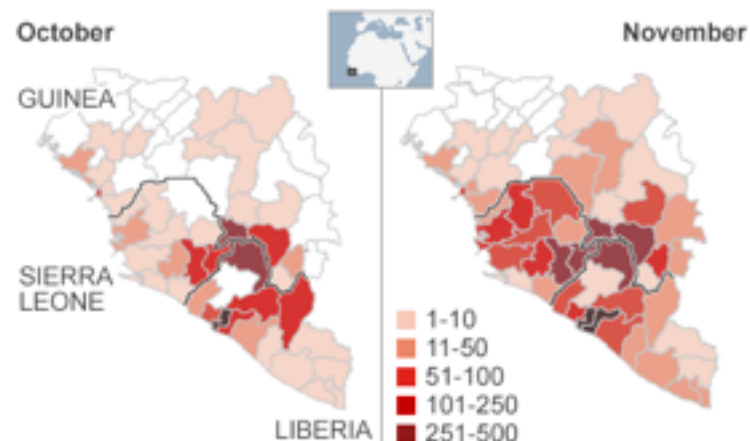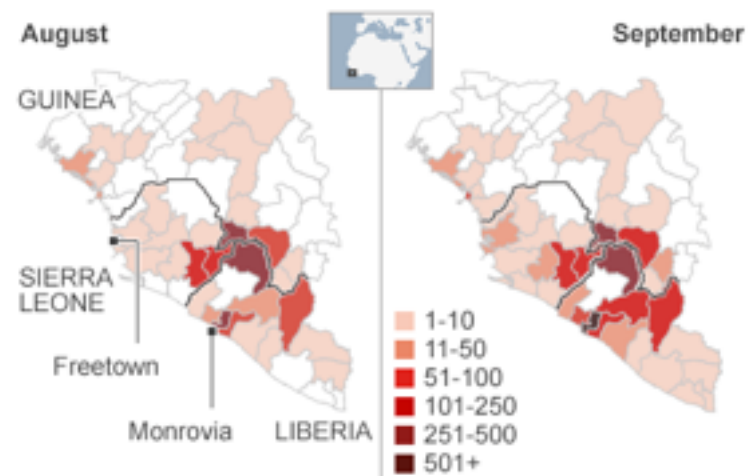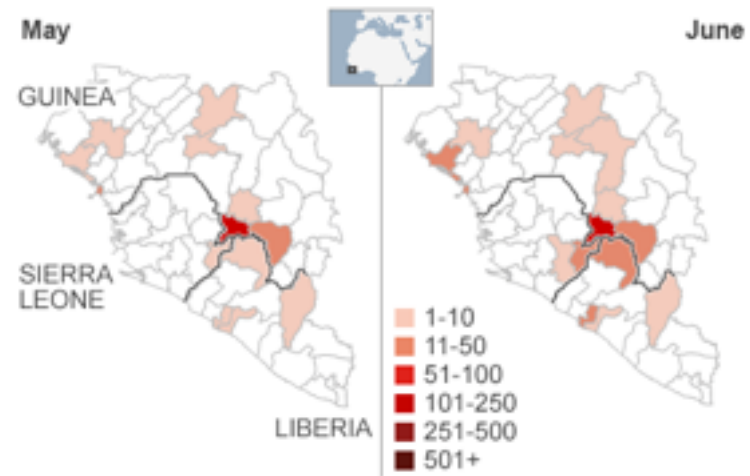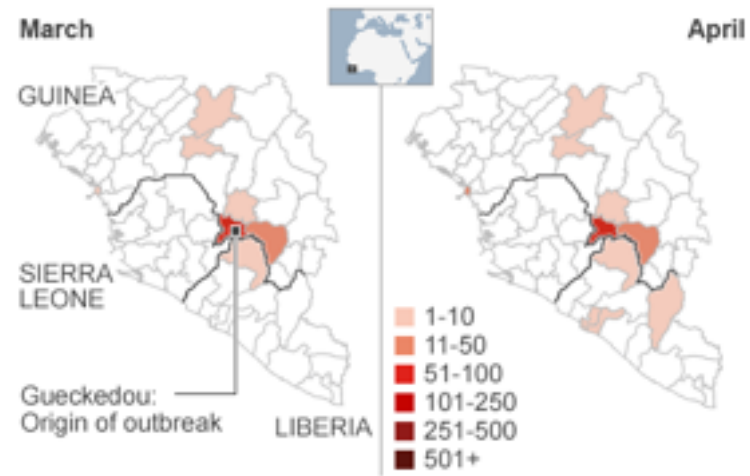**Philip II** 1527-1598
el rey papelero

Jean-Baptiste Colbert 1619-1683

"the information master"

erudition d'état

1648, Westphalia & *Staatkunde* to statistics

How the virus spread: Ebola death toll

By mid-June, the outbreak had already become the worst in history—deadlier than the 1976 event in the Democratic Republic of the Congo and with more cases than the 2000 outbreak in Uganda.

slow p

Amsterdam, and we in fears o

...ange is, that De Ruyter is dead, with
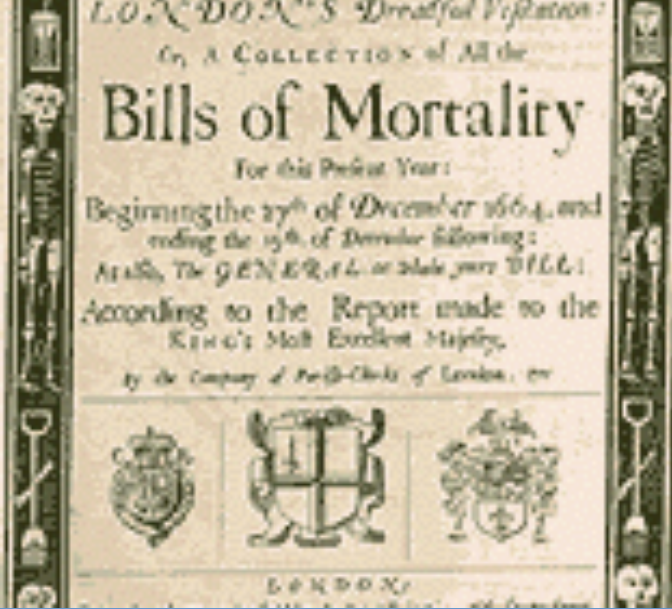
...ship, of the plague, at Cales

June 30, 1664

...f a Dutch ship ... where all the men were

...nd the ship cast ashore at Gottenburgh

Sept. 24, 1664

...nouse ... where all the newes is of the

...plague growing upon us in this towne

May 24, 1665

from pull to push
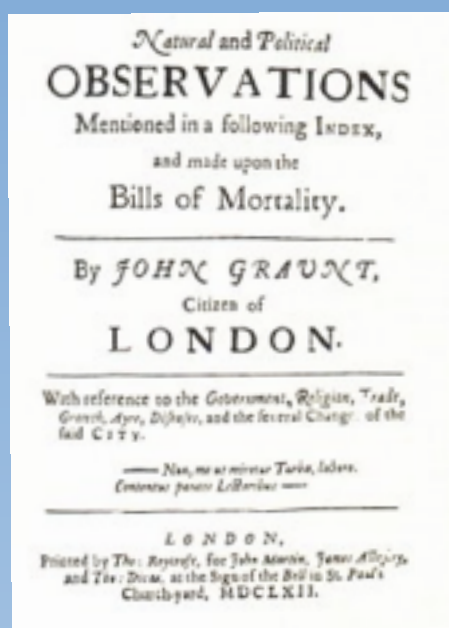
data mongers: John Graunt, William Petty

1603: regular bills of mortality

1611: incorporation of parish clerks
counting by "searchers"

1629: other deaths

1728: age of deceased

1837: last bills

THE [handwritten] 𝄐 𝄐 𝄐 𝄐

BRITISH MERCHANT;

OR,

Commerce Preserv'd.

IN THREE VOLUMES.

By Mr. CHARLES KING,

Chamber-keeper to the Treasury, and late of London Merchant.

LONDON:

To sum up all, if we pay to *France* yearly,
l.

For their Wines	450000
For their Brandies	70000
For their Linen	600000
For their Paper	30000
For their Silks	500000
	1650000

And they take from us in ad, Tin, Leather, Allum, opperas, Coals, Horn-Plates, c. and Plantation-Goods, to e Value of — 200000

Great Britain loses by the alance of that Trade yearly — 1450000

8 March 2015 Last updated at 06:32 ET

China trade surplus hits new record as exports grow

Premier Li Keqiang has announced a lowered growth target of around 7%

China's monthly trade surplus hit a record $60.6bn (£40.3bn) in February, as exports grew and imports slid back.

Exports were up 48.3% year on year to $169.2bn, and imports dropped by a fifth to $108.6bn, said the country's General Administration of Customs.

Related Stories

China premier unveils economic goals

customs & excise

merchant interests

"apprehension of the wrong balance of trade, appears of such a nature, that it discovers itself wherever one is out of humour with the ministry, or is in low spirits."

--David Hume,
"Of the balance of trade," 1758

§244.d.

"the proper method of calculation … would give the precise law according to which human life wastes … and thus supply the necessary *data* for computing accurately the values of all *life annuities* and *reversions.*"

great expectations

OBSERVATIONS

ON

The EXPECTATIONS of LIVES,

The INCREASE of MANKIND,

The Influence of great TOWNS on POPULATION,

AND PARTICULARLY

The STATE of LONDON,

WITH RESPECT TO

HEALTHFULNESS and Number of INHABITANTS.

Communicated to the ROYAL SOCIETY, April 27, 1769.

In a LETTER from

MR. RICHARD PRICE, F.R.S.

TO

BENJAMIN FRANKLIN, Esq; LL. D. and F. R. S.

LONDON,

Printed by W. BOWYER and J. NICHOLS.

MDCCLXIX.

This period in *joint* lives, I have observed, is *never* ordinates are $\frac{n-x}{n}$, and *axis x*.——The *fluent* of this expression, or $x - \frac{x^2}{2n}$, is the sum itself for the time x; and this, when $x = n$, becomes $\frac{1}{2}n$, and gives the *expectation* of the assigned life, or the sum of all the probabilities just mentioned for its whole possible duration.——In like manner: Since $\frac{\overline{n-x}^2}{n^2}$ is the probability that two equal joint lives will continue x time $\frac{\overline{n-x}^2}{n^2} \times \dot{x}$ will be the *fluxion* of the sum of the probabilities. The *fluent* is $x - \frac{x^2}{n} + \frac{x^3}{3n^2}$, which when $n = x$ is $\frac{n}{3}$ the expectation of two equal joint lives.——Again: Since $\frac{n-x}{n} \times \frac{2x}{n}$ is the probability that there will be a survivor of two equal joint lives at the end of x time, $\frac{n-x}{n} \times \frac{2x}{n} \times \dot{x}$ will be the *fluxion* of the sum of the probabilities; and the *fluent*, or $\frac{x^2}{n} - \frac{2x^3}{3n^2}$ is (when $x = n$) $\frac{1}{3}n$, or the *expectation* of survivorship between two equal lives, which therefore appears to be equal to the *expectation* of their joint continuance. The expectation of two *unequal* joint lives found in the same way is $\frac{m}{2} - \frac{m^2}{6n}$, m being the *complement* of the oldest life, and n the *complement* of the youngest. The whole *expectation* of survivorship is $\frac{n}{2} - \frac{m}{2} + \frac{m^2}{3n}$. The expectation of survivorship on the part of the oldest is, $\frac{m^2}{6n}$; and the expectation on the part of the youngest is, $\frac{n}{2} - \frac{m}{2} + \frac{m^2}{6n}$. It is easy to apply this investigation to any number of joint lives, and to all cases of survivorship.

I have above endeavoured to shew distinctly how the *expectations of single lives* may be found, agreeably to any Table of Observations, without having recourse to any principles, except such as are plain and common.

7   the

AN

APPEAL

TO

THE PUBLIC,

On the SUBJECT of the

NATIONAL DEBT.

The SECOND EDITION.

WITH

An APPENDIX, containing Explanatory OBSERVATIONS and TABLES; and an Account of the present State of POPULATION in NORFOLK.

By RICHARD PRICE, D.D. F.R.S.

LONDON:

Printed for T. CADELL, in the Strand.

M.DCC.LXXII.

[Price Two Shillings.]

pushing and pulling

Society for Constitutional Information

"great advantaged might be derived from a collection of well authenticated facts ... in order that the community may be possessed of the means of judging for themselves ... With a view of procuring the proper materials for such information ... country correspondents should be requested to supply ... [number of electors, number of resident electors, houses, diminution of voting ... what tenure ... corrupt usage]"   — SCI, 1783

"the duty of every man to furnish himself … with political information … public Ignorance is in the interest of Oppressors, and public Information the interest of the people"   — SCI, 1795

"Statistics should reveal the quantum of happiness in a population [and] the means of further improvement."
—John Sinclair

statistics

Statistics: a word lately introduced to express a view or survey of any kingdom, country, or parish

— *Encyclopaedia Britannica*, 1797

THE

STATISTICAL ACCOUNT

OF

SCOTLAND.

DRAWN UP FROM THE COMMUNICATIONS

OF THE

MINISTERS

OF THE

DIFFERENT PARISHES.

By SIR JOHN SINCLAIR, BART.

VOLUME TWENTY-FIRST.

Ad consilium de republica dandum, caput est nosse rempublicam.
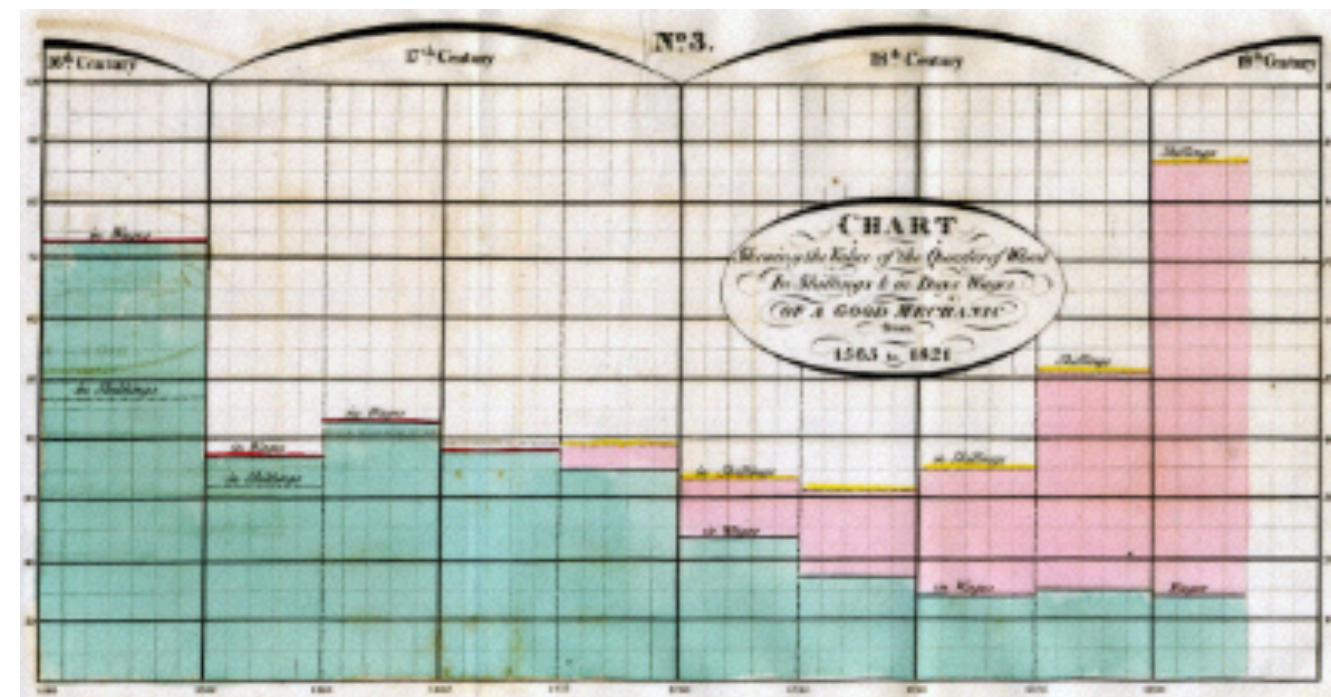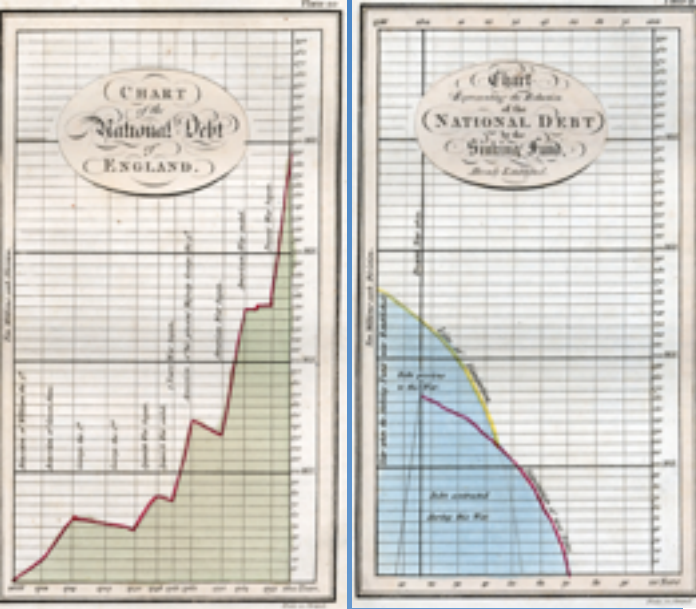CICERO de Orat. lib. ii.

EDINBURGH:

PRINTED AND SOLD BY WILLIAM CREECH;
AND ALSO SOLD BY J. DONALDSON. A. GUTHRIE, W. LAING,
AND JO. FAIRBAIRN, EDINBURGH; T. CADELL, J. DEB-
RETT, AND J. SEWEL, LONDON; DUNLOP AND WIL-
SON, GLASGOW; ANGUS AND SON, ABERDEEN.

M,DCC,XCIX.

Scots & Statistics

THE

STATISTICAL BREVIARY;

SHEWING,

ON A PRINCIPLE ENTIRELY NEW,

THE RESOURCES

OF EVERY

STATE AND KINGDOM IN EUROPE;

ILLUSTRATED WITH

STAINED COPPER-PLATE CHARTS,

REPRESENTING THE

PHYSICAL POWERS OF EACH DISTINCT NATION
WITH EASE AND PERSPICUITY.

By WILLIAM PLAYFAIR.

TO WHICH IS ADDED,

A SIMILAR EXHIBITION OF THE RULING POWERS
OF HINDOOSTAN.

LONDON:

Printed by T. Bensley, Bolt Court, Fleet Street,

For J. Wallis, 46, Paternoster Row; Carpenter and Co. Bond
Street; Egerton, Whitehall; Vernon and Hood, Poultry; Black
and Parry, Leadenhall Street; and Tibbet and Didier, St. James's
Street.

1801.

THE

COMMERCIAL AND POLITICAL

ATLAS,

Representing, by Means of

STAINED COPPER-PLATE CHARTS,

THE

PROGRESS OF THE COMMERCE, REVENUES, EXPENDITURE,

AND DEBTS OF ENGLAND,

DURING THE WHOLE OF THE

EIGHTEENTH CENTURY.

THE THIRD EDITION,

Corrected and brought down to the End of left Year.

By WILLIAM PLAYFAIR.

London

Printed by T. Burton, Little Queen-Street, Lincoln's-Inn Fields,

FOR J. WALLIS, NO. 46, PATERNOSTER-ROW; CARPENTER AND CO. BOND-
STREET; EGERTON, WHITEHALL; VERNOR AND HOOD, POULTRY;
BLACK AND PARRY, LEADENHALL-STREET.

1801.

15

opinionated statistics

Society for the Diffusion of Useful Knowledge 1826

Royal Statistical Society, 1833

```
"the first and most essential rule of its conduct
to exclude all opinions"            — Richard Jones, 1833
```

Social Science Association 1857

```
"volunteer legislators of Great Britain .. brings
together persons of all opinions consistent with
the profession of a desire for social improvement"
```

--J.S. Mill

official competition

the "incontinent printer"

Parliamentary Commissions & "Blue Books"

wars, colonies, trade

"moral statistics"

poor law
child labour
factories acts
mines
sanitary conditions
Welsh education ...

unintended

"Leonard Horner was one of the Factory Inquiry Commissioners in 1833, and Inspector, or rather Censor of Factories till 1859. He rendered undying service to the English working class. He carried on a life-long contest, not only with the embittered manufacturers, but also with the Cabinet, to whom the number of votes given by the masters in the Lower House, was a matter of far greater importance than the number of hours worked by the 'hands' in the mills."

--Karl Marx, *Capital*

push & pull

"Our most practical check upon existing abuses; and small is the error of giving too much information, in comparison of the guilt of withholding any."
— *Times*, 1828

"It was not wise to give too much information with regard to the business they had in hand, as it might not be to the advantage of the company."
— *Times*, 1867

government records

taxpayers

military eligibility

aliens

racial groups

the poor

professions

midwives

prostitutes

cars

'National Insurance'

social security

The Conscience of a Liberal
PAUL KRUGMAN

There's Something About Money (Implicitly Wonkish)
FEBRUARY 10, 2015 11:39 AM   293 Comments

not forgetting

"Here's my current thought: in some sense money is a really weird thing, which can look to individuals like a real asset — cold, hard, cash — but is **ultimately, as Paul Samuelson put it, a "social contrivance" whose value is more or less conjured out of thin air.** Mainstream macroeconomics acknowledges the weirdness — in particular, makes heavy reliance on the ability of central banks to create more fiat money at will — but otherwise treats money a lot like ordinary goods. But that intellectual strategy doesn't come naturally to many people, so there's always a constituency for monetary cranks."   — Paul Krugman

ESSAY

ON THE

PRINCIPLE OF POPULATION,

AS IT AFFECTS

THE FUTURE IMPROVEMENT OF SOCIETY.

WITH REMARKS

ON THE SPECULATIONS OF MR. GODWIN,

M. CONDORCET,

AND OTHER WRITERS.

LONDON:

PRINTED FOR J. JOHNSON, IN ST. PAUL'S
CHURCH-YARD.

1798.

"[An] Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct."

back to government

Year	Population	Gain		Clerks
1900	76,212,168	13,232,402	21.0	
1890	62,979,766	12,790,557	25.5	
1880	50,189,209	11,630,838	30.2	2000
1870	38,558,371	7,115,050	22.6	1495
1860	31,443,321	8,251,445	35.6	483
1850	23,191,876	6,128,523	35.9	
1840	17,063,353	4,202,651	32.7	28
1830	12,860,702	3,222,249	33.4	
1820	9,638,453	2,298,572	33.1	
1810	7,239,881	1,931,398	36.4	
1800	5,308,483	1,379,269	35.1	
1790	3,929,214	-	-	
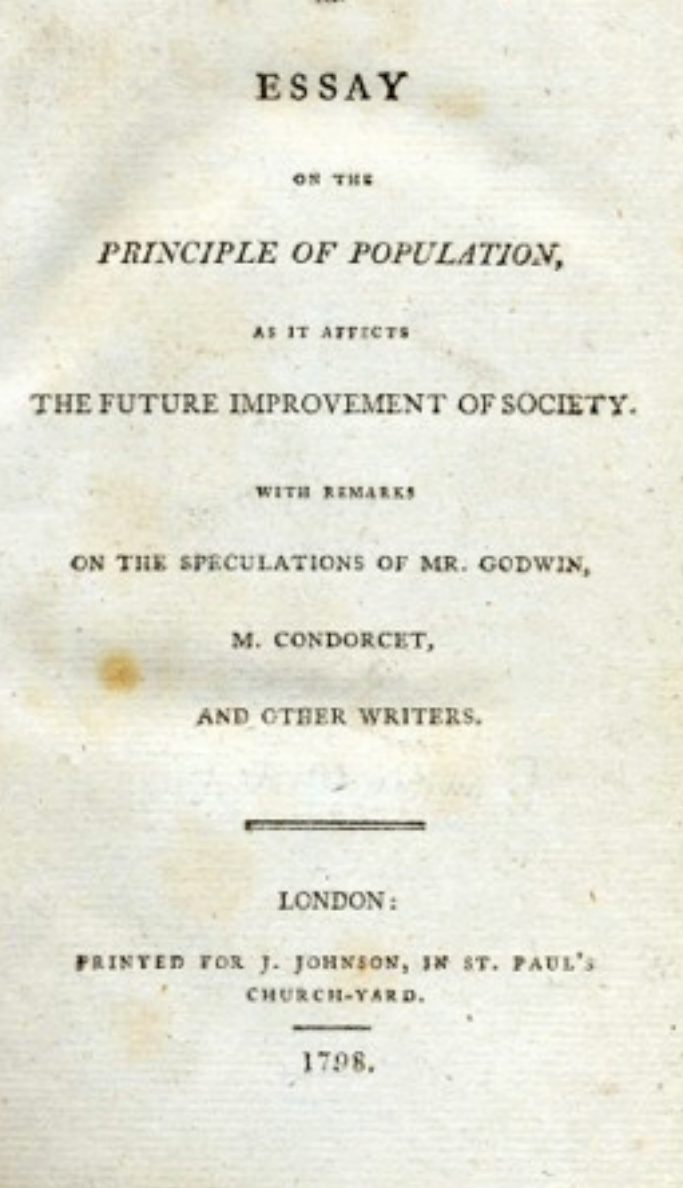
Spain: 1787

US: 1790

UK: 1801

State   23

tabulating

Herman Hollerith
1860–1929

Hollerith

Electronic Tabulating Machine

1890 Census

"This apparatus works unerringly as the mills of the gods, but beats them hollow as to speed."

— *The Electrical Engineer,* 11 Nov 1891

the punch card

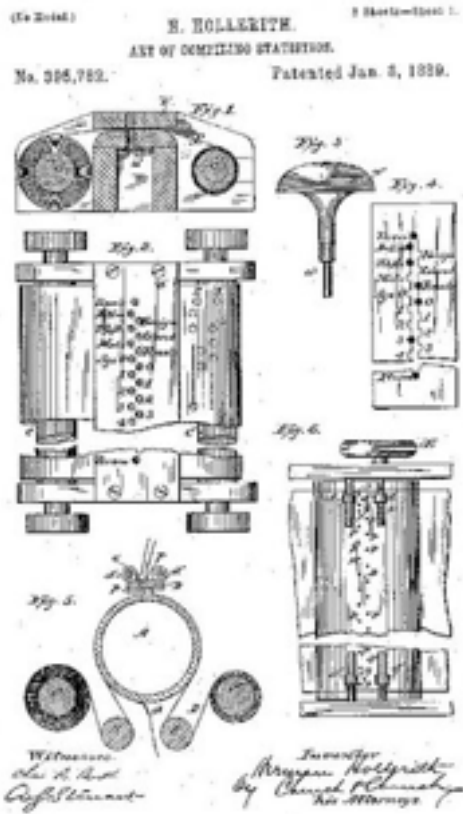# government & business

Hollerith

Tabulating Machine Company

CTR:
Computing-Tabulating-Recording Company

Thomas Watson
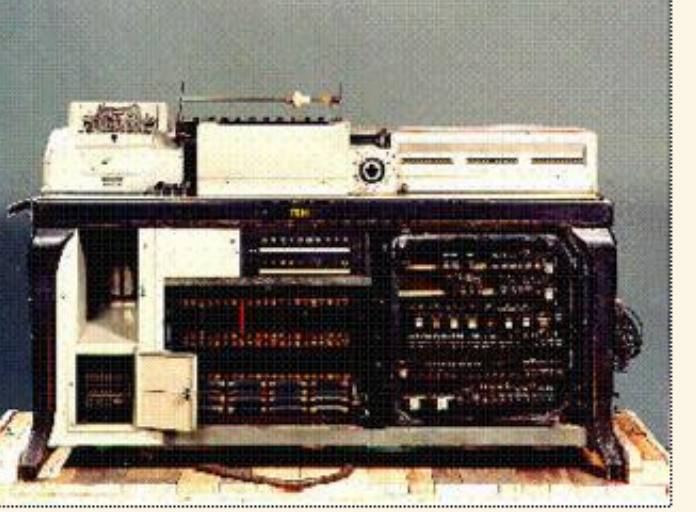NCR to CTR to ...

a new deal

Social Security Act, 1935

`"the world's largest bookkeeping job"`

Seventy-fourth Congress of the United States of America;

At the First Session,

Begun and held at the City of Washington on Thursday, the third
day of January, one thousand nine hundred and thirty-five.

AN ACT

To provide for the general welfare by establishing a system of Federal
old-age benefits, and by enabling the several States to make more
adequate provision for aged persons, blind persons, dependent and
crippled children, maternal and child welfare, public health, and
the administration of their unemployment compensation laws; to
establish a Social Security Board; to raise revenue; and for other
purposes.

*Be it enacted by the Senate and House of Representatives of the
United States of America in Congress assembled,*

TITLE I—GRANTS TO STATES FOR OLD-AGE
ASSISTANCE

APPROPRIATION

SECTION 1. For the purpose of enabling each State to furnish
financial assistance, as far as practicable under the conditions in such
State, to aged needy individuals, there is hereby authorized to be
appropriated for the fiscal year ending June 30, 1936, the sum of
$49,750,000, and there is hereby authorized to be appropriated for

Hollerith-Maschine Dehomag D11, die 1933 in Deutschland

RASSENAMT-SS ①

controlling numbers

controlling people

The Nazi Census --Aly & Roth, 2004

IBM D11

Census, 1933, 1939

Labor Book, 1935

Health Pedigree book, 1936

Registry of the Populace, 1939

Blood (high, average, acceptable, inferior), 1940

Personal Identification Number, 1944