



economics, information & quality

quality of information

September 19, 2007

aob

course corrections

economics



overview

economics

why?

what?

economics and information

economics and geography

economics and quality



why economics?

information age/economy

information rules, ok?



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information age/economy

information rules, ok?

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William Harding
Daniel Crissinger
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The New York Times, until now, has had three economics columns. Economic Scene was written by economists: it rotated between Tyler Cowen, Austan Goolsbee, Robert Frank, and Hal Varian. Economic View was written by journalists, including Daniel Altman, Dan Gross, and Louis Uchitelle. Finally, Times staffer David Leonhardt had his own Wednesday column, Economix. Today, all that changed. This is not good news for economic discourse in the mainstream press.

economic pundits

New York Times: Paul Krugman

New York Times: “the economic scene”

New Yorker: Malcolm Gladwell

New Yorker: James Surowieki

blogs: Brad deLong, Matthew Yglesias ...



economic discourse

"Caplan is the sort of economist (are there other sorts? there must be) who engages with the views of non-economists in the way a bulldozer would engage with a picket fence if a bulldozer could express glee."

Steven Leavitt & Stephen Dubner,
Freakonomics, 2006

Brian Caplan, *The Myth of the Rational Voter: Why Democracies Chose Bad Politics*,
2007

Greg Clark, *A Farewell to Alms*, 2007



imperialism

E.P. Lazear. "Economic Imperialism," *The Quarterly Journal of Economics*, 2000

"Economists generally believe in the market test"

"By almost any market test, economics is the premier social science ... the success ... derives from its rigor and relevance as well as its generality"

- maximizing rational behavior
- equilibrium
- efficiency

"Economics succeeds where other social science fail"

"The most aggressive economic imperialists aim to explain all social behavior by using the tools of economics"



economics & information

"One should hardly have to tell
academicians that information is a
valuable resource: knowledge is power"

George Stigler, "The Economics of
Information," 1961



economics & knowledge

"information as that which is being
communicated becomes identical with
'knowledge' in the sense of that which
is known"

Fritz Machlup, *The Production and
Distribution of Knowledge*, 1963



knowledge production

"The production, distribution, and consumption of 'knowledge' in all its forms is said to account for 29 percent of gross national product ... and 'knowledge production' is growing at about twice the rate of the rest of the economy ... What the railroads did for the second half of the last century and the automobile for the first half of this century may be done for the second half of this century by the knowledge industry: that is, to serve as the focal point for growth"

--Machlup



knowledge production



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"The university and segments of industry are becoming more alike. As the university becomes tied to the world of work, the professor--at least in the natural sciences--takes on the characteristics of the entrepreneur. ... The two worlds are merging physically and psychologically"



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"There is a time when the operation of the machine becomes so odious, makes you so sick at heart, that you can't take part; you can't even passively take part, and you've got to put your bodies upon the gears and upon the wheels, upon the levers, upon all the apparatus, and you've got to make it stop"



knowledge production

"All the aspects of knowledge--its creation, its storage, its retrieval, its treatment as property, its role in the functioning of societies and organizations--can be (and have been) analyzed with the tools of economics. Knowledge has a price and a cost of production; there are markets for knowledge, with their supply curves, and marginal rates of substitution".

Herbert Simon,
"The many shapes of knowledge", 1999



back to “information”

House of Lords,
Trial of Warren
Hastings, 1788:
"You have said Mr.
Hastings could not
have obtained full
and complete
Information upon
the subject?"

complete

perfect

symmetrical

--

game theoretical solution



tacit assumptions

[the idea of] "personal knowledge that is not readily transmitted as information [is a challenge to] virtually every construction of rational decision processes as the basis for modeling and explaining the behaviors of individual agents".

Cowan, David, Foray, "The Explicit Economics of Knowledge Codification and Tacitness,"
2000



tacit fears

the Denning assumption

dissent from methodological individualism "implies that the behavior of men is directed by mysterious forces that defy analysis and description".

Ludwig von Mises, *The Ultimate Foundation of Economic Science*, 1962



so to Hayek



1889-1992

The Road to Serfdom, 1944

The Fatal Conceit, 1988

“Economics and Knowledge”, 1937

“The Use of Knowledge in Society”, 1945

Hayek, 1937

Hayek, 1937

the "assumption in the data, in the form of demand schedules representing individual tastes and the technical facts, will be equally given to all individuals and that their acting on the same premises will somehow lead to their plans becoming adapted to each other"

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"Clearly there is here a problem of the division of knowledge which is quite analogous to, and at least as important as, the problem of the division of labour. ... instead of showing what bits of information the different persons must possess in order to bring about the result, we fall in effect back on the assumption that everybody knows everything"

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"Economics has come nearer than any other social science to an answer to that central question of all social sciences, how the combination of fragments of knowledge existing in different minds can bring about results which, if they were to be brought about deliberately, would require a knowledge on the part of the directing mind which no single person can possess"

Hayek, 1937

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"... the spontaneous actions of individuals will under conditions which we can define bring about a distribution of resources ... as if it were made according to a single plan"

"equilibrium analysis ... seems to have so extraordinarily little to say about the institutions, such as the press, the purpose of which is to communicate knowledge. ... a peculiar blindness to the rôle played in real life by such institutions as advertising"

Hayek, 1945

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"A body of suitably chosen experts may be in the best position to command all the best knowledge available--though this is of course merely shifting the difficulty to the problem of selecting the experts"

Hayek, 1945

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"economists who regard themselves as definitely above the crude materialist fallacies ... commit the same mistake [of prejudice] toward the acquisition of such practical knowledge ... because in their scheme of things such knowledge is supposed to be 'given'"

Hayek, 1945

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"the price system ... a mechanism for communicating information"

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"the price system ... a mechanism for communicating information"

"in a system where knowledge of the relevant facts is dispersed among many people, prices can act to coordinate the separate actions"

"these adjustments are never perfect"

"the unavoidable imperfection of man's knowledge and the consequent need for a process by which knowledge is constantly communicated and acquired"



after Hayek

"knowledge" is rarely reducible to
information"

G.B. Richardson, *Information &
Investment*, 1960



information's place

"As the market grows in these dimensions,
there will appear a set of firms which
specialize in collecting and selling
information. They may take the form of
trade journals or specialized brokers ...
there is a strong tendency towards
monopoly ... a 'standard' source for
trade information".
--Stigler, "The Economics of Information"



in and out

"perfect information ... free, complete, instantaneous, and universally available ... [is] one of the defining features of the perfect market ... "

"at the same time, both the perfect and the actual market structure ... depend on information being a commodity, ... costly, partial, and deliberately restricted"

James Boyle, *Shamans, Software, & Spleen*, 1996



out

"by neglecting the whole problem of information, the perfect competition model condemns itself not only to unrealism but to inadequacy even as a hypothetical system"

--Richardson



spatial division of knowledge

"somewhere in the world a new opportunity
for the use of some raw material, say tin,
has arisen ..."

--Hayek, 1945



gaps

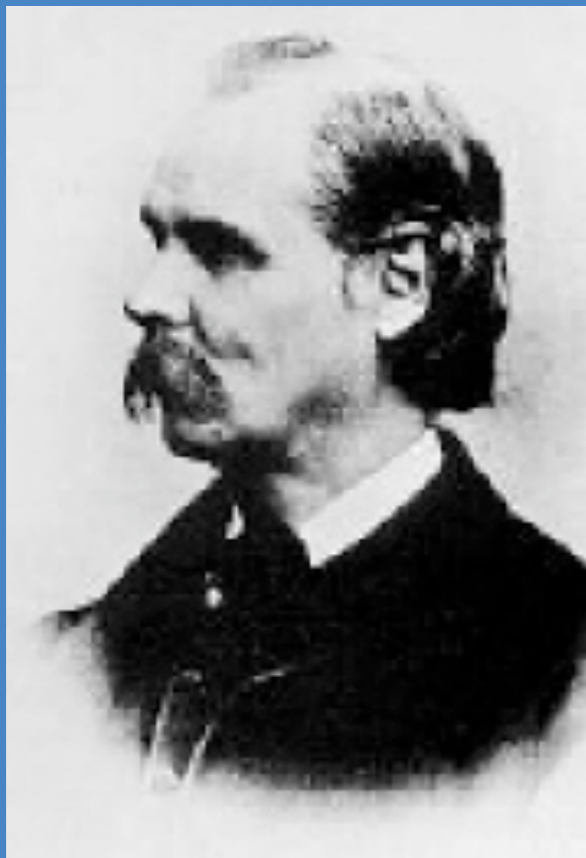
"Until the middle of the 1970s, economists could give a mathematical description .. only if they assumed ... perfect competition"

"human capital .. could be studied using the economic tools developed for objects"

"Must economic theory recognise a different kind of good--ideas--if it is to explain .. growth?
... If there are only object gaps, the implications for poor countries are much more pessimistic than if there are also idea gaps"



localization

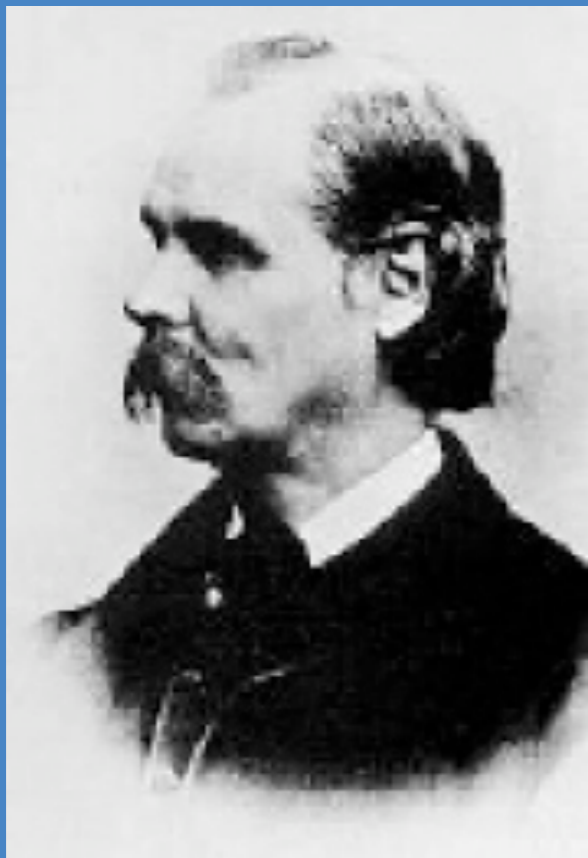


[T]he mechanical faculty of Lancashire is said to be due to the influence of Norman smiths who were settled at Warrington by Hugo de Lupus in William the Conqueror's time. And the greater part of England's manufacturing industry before the era of cotton and steam had its course directed by settlements of Flemish and other artisans; many of which were made under the immediate direction of Plantagenet and Tudor kings. These immigrants taught us how to weave woollen and worsted stuffs, They taught us how to cure herrings, how to manufacture silk, how to make lace, glass, and paper, and to provide for many other of our wants.

Alfred Marshall, *Principles of Economics*, 1920



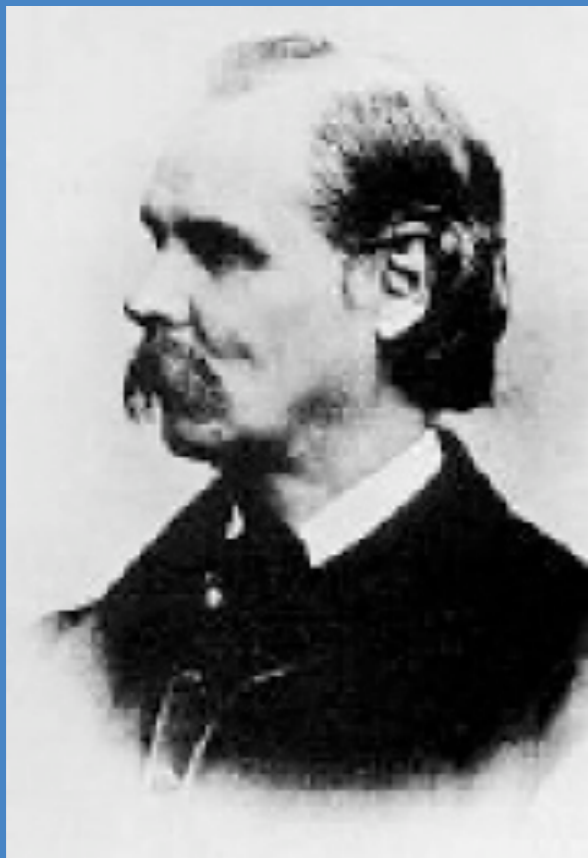
localization



When an industry has thus chosen a locality for itself, it is likely to stay there long: so great are the advantages which people following the same skilled trade get from near neighbourhood to one another. **The mysteries of the trade become no mysteries; but are as it were in the air,** and children learn many of them unconsciously. Good work is rightly appreciated, inventions and improvements in machinery, in processes and the general organization of the business have their merits promptly discussed: if one man starts a new idea, it is taken up by others and combined with suggestions of their own; and thus it becomes the source of further new ideas. And presently subsidiary trades grow up in the neighbourhood, supplying it with implements and materials, organizing its traffic, and in many ways conducing to the economy of its material. -- Marshall²⁸



limits to localization

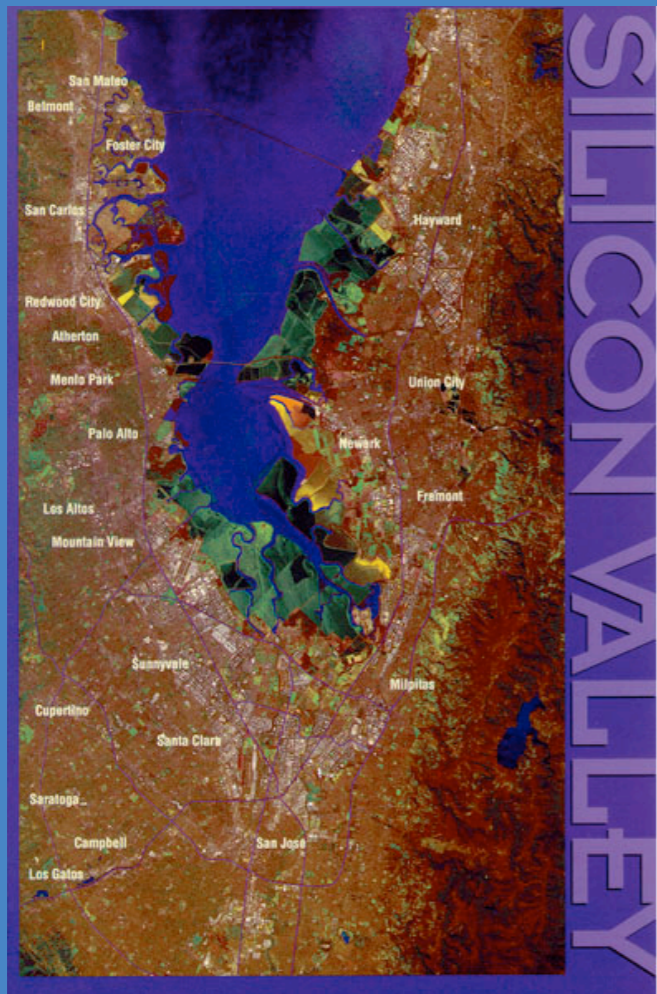


Every cheapening of the means of communication, every new facility for the free interchange of ideas between distant places alters the action of the forces which tend to localize industries. Speaking generally we must say that a lowering of tariffs, or of freights for the transport of goods, tends to make each locality buy more largely from a distance what it requires; and thus tends to concentrate particular industries in special localities: but on the other hand everything that increases people's readiness to migrate from one place to another tends to bring skilled artisans to ply their crafts near to the consumers who will purchase their wares.

--Marshall



cheaper and cheaper



regions of innovation

radio, television
oscillator, microprocessor
personal computer
ethernet, web
search
web 2.0

regional policy



and finally, quality

"Quality is so disputable a matter, that
I look upon all information of this kind
[ie, about quality] as somewhat
uncertain"

Adam Smith, *Wealth of Nations*, 1776



quality assurance

“Nature has wisely judged that the distinction of ranks, the peace and order of society, would rest more securely on the plain and palpable difference of birth and fortune, than upon the indivisible and often uncertain difference of wisdom and virtue. The undistinguishing eyes of the great mob of mankind can well enough perceive the former: it is with difficulty that the nice discernment of the wise and virtuous can sometimes distinguish the latter”.

Adam Smith, *Theory of Moral Sentiments*, 1759



200 years on

"Quality has not yet been successfully specified by economics, and this elusiveness extends to all problems in which it enters"

Stigler, "The economics of innovation", 1961



and on

"the still insufficiently explored role of quality (as contrasted with price) in economic life ... Quality changes have usually been dealt with ... through the concept of *equivalent* price or quantity change

... quality and price are ... totally different phenomena

Albert Hirschman, *Exit Voice, and Loyalty*, 1970



irreducible

"Information about quality ... poses an intrinsically more difficult problem than uncertainty about prices .. quality may be multidimensional, unquantifiable ... irreducibl[y] subjective".

J. Hirshleifer, "Where Are We in the Theory of Information," 1973



evasion?

"The problem of quality has been evaded
by the assumption of homogeneous goods"

.... Let us consider these [used-car]
dealer markets".

--Stigler



making lemons

"There is an incentive for sellers to market poor quality merchandise ...

The difficulty of distinguishing good quality from bad is inherent in the business world.

...Gresham's law has made a modified reappearance.

George Akerlof, "The Market for Lemons: Quality, Uncertainty, and the Market Mechanism," 1970



reputation

"New products are associated with old brand names. This ensures the prospective consumer of the quality of the product".

"Doctors, lawyers, and barbers, the high school diploma, the baccalaureate degree, the Ph.D., even the Nobel Prize, ... education and labor markets themselves have their own 'brand names'".

--Akerlof



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disequilibrium?

economic discourse

**economics on information/
knowledge**

the place of information

the quality of information