



# social implications of the internet (I)

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## **the 'death of distance'**

where will we live, work, and learn?

in the global village, stupid!





# determinism once more

... this age of  
ours ... when the  
pulsations of  
electricity vibrate  
and throb around this  
earth, uniting  
nations as one family  
by those powerful yet  
sensitive bonds  
wrought by science  
and riveted by man's  
quenchless thirst for  
still higher and  
better achievements.

Morris S. Wise, *Trade-  
marks and Trade-mark  
Law*, 1898

"Electric circuitry has overthrown the regime  
of 'time' and 'space' and pours upon us  
instantly and continuously concerns of all  
other men. It has 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 Message*, 1967



# determinism again

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"If the presence of electricity can be made visible in any desired part of the circuit, I see no reason why intelligence may not be instantaneously transmitted by electricity to any distance."

--Samuel Morse

"the cost of communicating ideas  
... is now distance-free"

--Frances Cairncross



# Cairncross's determined trendspotting

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1. Death of distance
2. Fate of Location
3. Improved Connections
4. Increased Mobility
5. More Customized Networks
6. Deluge of Information
7. Increased Value of Brand
8. More Minnows, more Giants
9. More Competition
10. Increased Value of Niches
11. Communities of Practices
12. Loose-Knit Corporation Culture
13. Openness
14. Manufacturers as Service Providers
15. Inversion of Home and Office
16. Proliferation of Ideas
17. Decline of National Authority
18. Loss of Privacy
19. Global Premium for Skills
20. Rebirth of Cities
21. Rise of English
22. Communities of Culture
23. A New Trust
24. People as Scarce Resource
25. Global Peace



# improved connections

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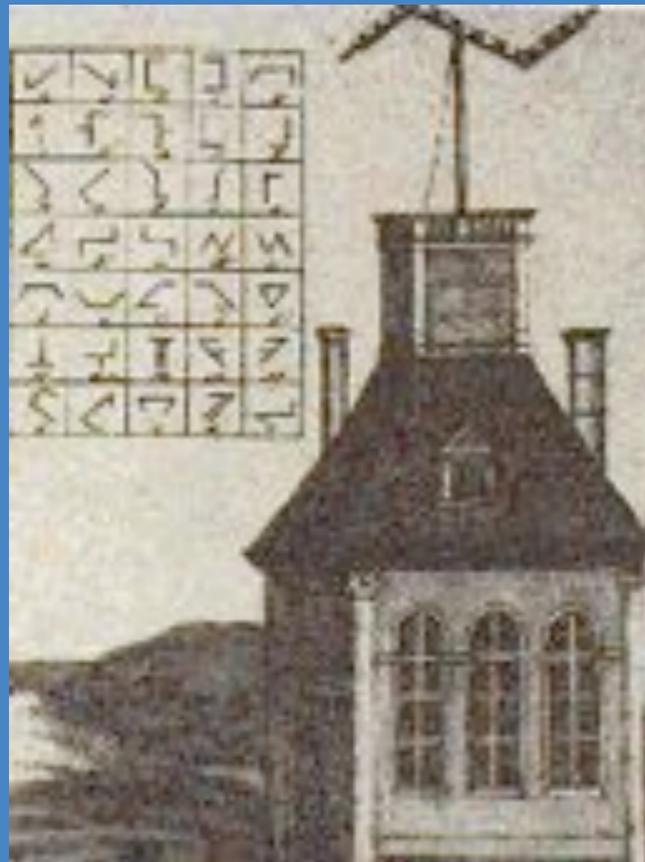
"Most people on earth will eventually have access to networks that are interactive and broadband. The Internet will continue to exist in its present form, but will also carry many other services, including telephone and television." -- Cairncross

Imagine a magical device that could boost entrepreneurship and economic activity, provide an alternative to bad roads and unreliable postal services, widen farmers' access to markets, and allow swift and secure transfers of money. Now stop imagining: the device in question is the mobile phone. – *The Economist*, July 2005

The idea gap, --Paul Romer



# national unity



"The establishment of the telegraph is ... the best response to the publicists who think that France is too large to form a Republic. The telegraph shortens distances and, in a way, brings an immense population together at a single point." --Claude Chappe, 1793

"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



# single pulse

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"Tomorrow the hearts of the civilized world will beat in a single pulse, and from that time forth forevermore the continental divisions of the earth will, in a measure, lose those conditions of time and distance which now mark their relations. ... The Atlantic has dried up and we become in reality as well as wish, one country."

*Times*



# global peace

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"the great chain that will bring all civilized nations into instantaneous communication ... the most potent of all the means of civilization, and the most effective in breaking down the barriers of evil prejudice and custom"

*Hunt's Merchants' Magazine, 1868*

"the hand of progress beckons .... a rivet is loosened from the chains of the oppressed"

*Commercial and Financial Chronicle, 1865*



# keeping distance alive

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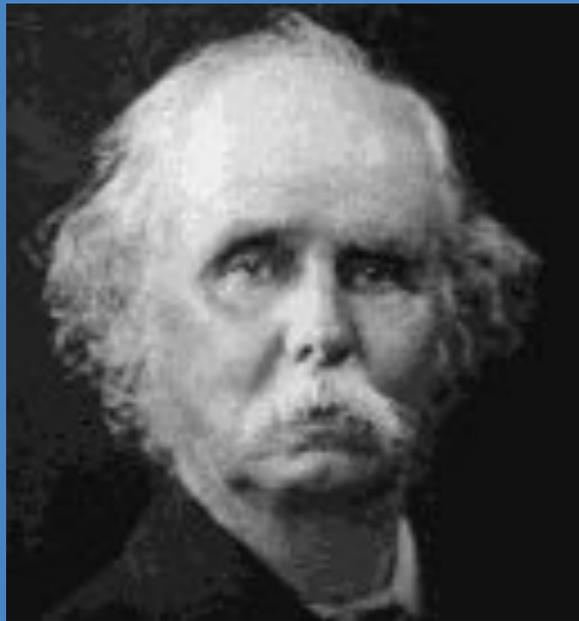
Charles Babbage  
1791-1871

"The accumulation of many large manufacturing establishments in the same district has a tendency to bring together purchasers or their agents from great distances, and thus to cause the institution of a public mart or exchange. This contributes to diffuse information relative to the supply of raw materials, and the state of demand for their produce, with which it is necessary manufacturers should be well acquainted. The very circumstance of collecting periodically, at one place, a large number both of those who supply the market and of those who require its produce, tends strongly to check the accidental fluctuations to which a small market is always subject, as well as to render the average of the prices much more uniform." --Charles



# Marshall's *localization*

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Alfred Marshall  
1842-1924

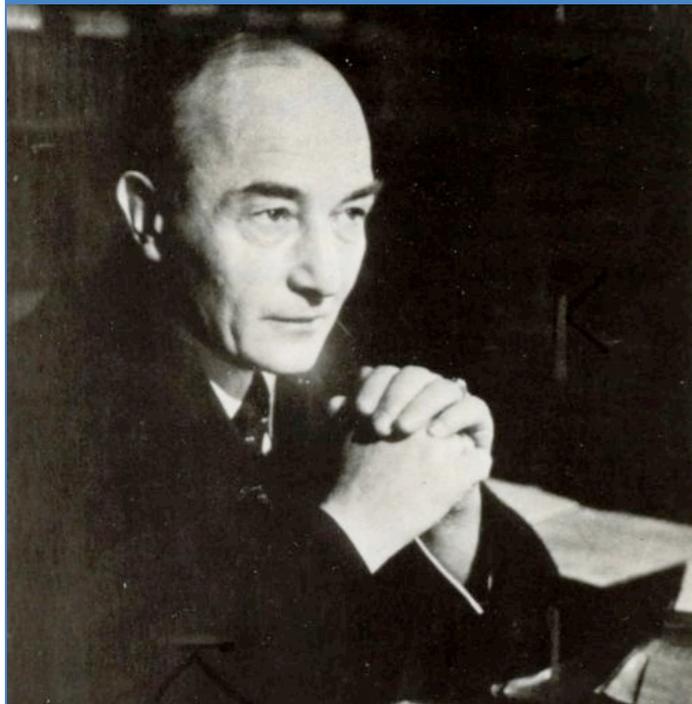
In an early stage of civilization every place had to depend on its own resources for most of the heavy wares which it consumed;

Consequently the lighter and more expensive articles of dress and personal adornment, together with spices and some kinds of metal implements used by all classes, and many other things for the special use of the rich, often came from astonishing distances.

This elementary localization of industry gradually prepared the way for many of the modern developments



# divisions of labor



Robert Musil  
1880-1942

## **the super-American city**

"Air and earth form an ant-hill, veined by channels of traffic, rising storey upon storey. Overhead-trains, overground-trains, underground-trains, pneumatic express-mails ... chains of motor vehicles. ... Each person has nothing but quite definite tasks. The various professions are concentrated at definite places. ... Amusements are concentrated in other parts of the city. And elsewhere again are the towers to which one returns and finds wife, family, gramophone, and soul. Tension and relaxation, activity and love are meticulously kept separate. ... And man needs no more for his happiness ... Besides, zoology makes it clear that a sum of reduced individuals may very well form a totality of genius."  
--Robert Musil, *A Man without Qualities* c. 1920s



NYT, 1931

# amusements

## ELECTRICAL ENTERTAINMENT: A GLIMPSE INTO THE FUTURE

By DR. ALFRED N. GOLDSMITH,  
Vice President and General Engineer,  
Radio Corporation of America.

### Dr. Goldsmith of the Radio Corporation Predicts an Instrument Which at a Touch of the Fingers Will Bring to the Home Scenes and Sound, Color Symphonies, or a Keyboard for Self-Created Music

It would not be astonishing if, within the next 50 years, "radio" (in a legitimately expanded use of the term) came to mean the same thing as "entertainment." Some may regard this as an over-bold assertion. Yet an unprejudiced study of the nature of electrical entertainment—and this is what we really mean by "radio" in the probable broad usage of the future—has exhibited an extensive and agencies so powerful at its disposal that entertainment and radio may come to mean the same thing. Today, with some branches of electrical entertainment in their infancy and others not yet born, it is difficult for the public and the artists to gauge the significance of the trend in that direction. The ultra-specialist, concentrating on one particular form of electrical entertainment device (such as a radio receiver), is likely to see only his corner of the field. The broad significance of electrical entertainment may well elude him.

Musicians, artists, actors and composers of the present are accustomed to the forms of mechanical, visual and audible entertainment with which the public is now provided. They, too, are specialists and have devoted their lives to the mastery of an instrument or a technique. Not unreasonably they view with some apprehension the mere idea of a revolution in the methods and instrumentalities of entertainment. Electricity is a strange and foreign force, and only those musicians who have won success and fame in the fields of broadcasting and phonograph record production are likely to view with sympathy a tendency toward the superseding of present forms of entertainment by electrical entertainment.

#### The Role of Radio.

Yet time brings the answer to most problems and silences the unwarranted objections, and there are extremely powerful reasons for the belief that time is the ally of what is broadly called electrical entertainment, of which radio is the greatest present exponent. Perhaps a brief analysis of the functions of entertainment and the requirements of an ideal plan will show clearly why electrical entertainment necessarily holds the key to the future.

In contriving entertainment material, human psychology must always be kept in mind. Mankind lives not only in the present but also, in a manner of speaking, in the past. We desire to see and to hear not only that which is happening but also that which has happened and, except through the magic of its recreation, is gone forever. We need to see the past either as it happened—or as we like to imagine it happened—

and because a frozen part of history. For games this may all be very well; they are but sport, and imperfections in the play detract little from their appeal. But for great artistic or dramatic performances this is not so satisfactory. We always hope for the "perfect performance." Here it is better to employ a medium of entertainment which permits repeated trials until finally the most nearly perfect record is obtained. This subtlimated and approved record represents the best performance of which the artist is capable and it is available for practically all time, ever ready to live again at a touch of the finger on the controlling switch.

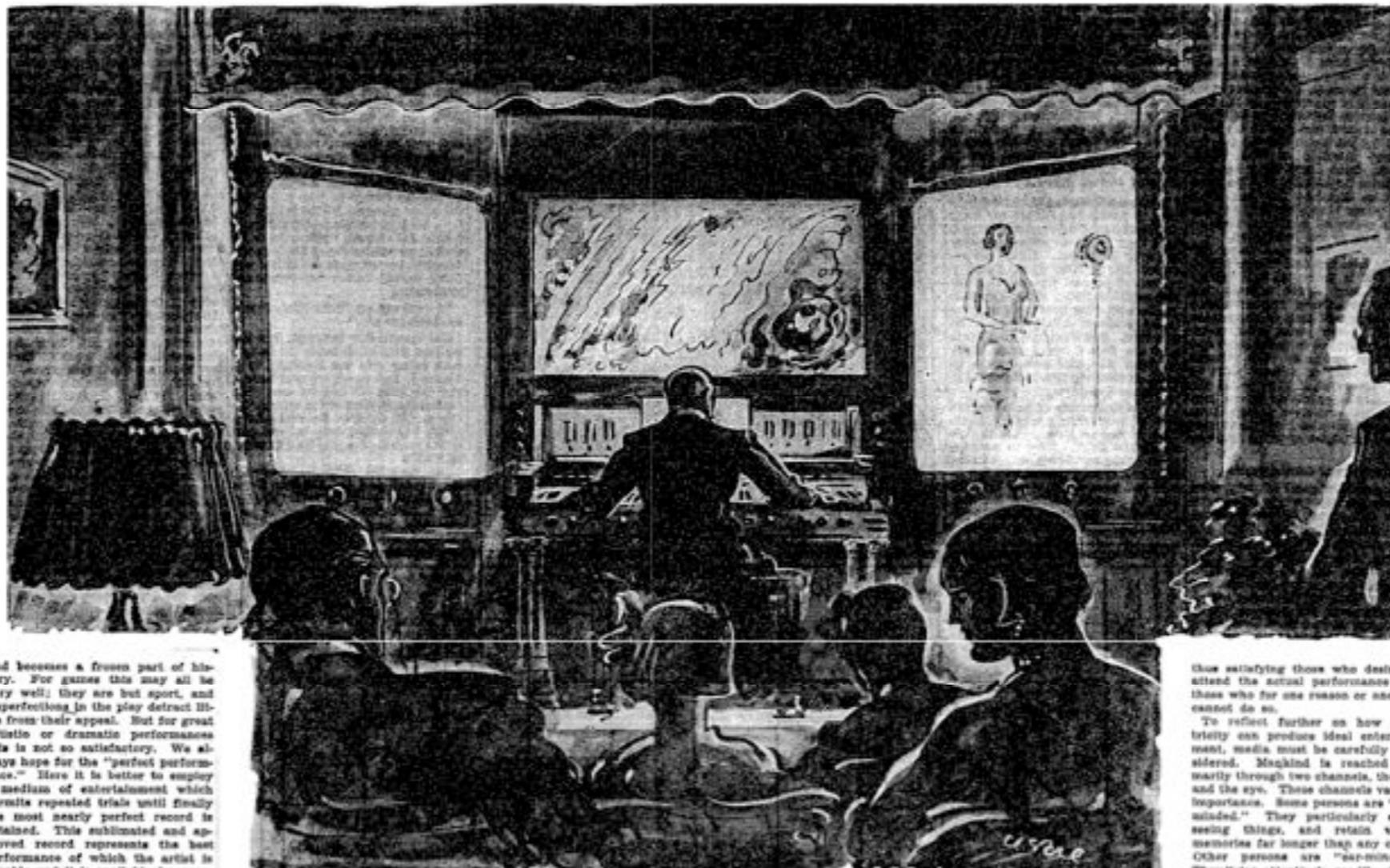
#### Anticipating Distance.

There is another fundamental need,

thus satisfying those who desire to attend the actual performance and those who for one reason or another cannot do so.

#### A New Art.

Here again electricity brings a new art. It is conceivable that mobile color will be as definite and widely appreciated a form of art in the centuries to come as music is



The Home "Electrical Entertainer" of 1961, as Visualized by Dr. Alfred N. Goldsmith. On the Left is a Panel Upon Which News Talking Motion Pictures Are Cast From Behind the Screen. In the Centre is an Electrical Music Machine, Combined With a Color-Organ, Which Casts Weird Images on the Centre Screen as the Music Is Produced With a Keyboard Similar to That of a Modern Theatre Organ. Television, Which Will Always Accompany Radio Broadcasting, Plays Over the Right-Hand Screen When the Radio Set Is Turned On.

ciate the program. The ideal type of home for the "lookstener" will be both sound-proofed and darkened. Of course, we do not actually need an extreme and peculiar type of residence for this purpose, because the "lookstener" will demand that the television picture be bright enough to be seen under ordinary home conditions and that the sounds will be loud enough to be appreciated in normally quiet surroundings.

Paralleling the combined television and telephone radio program, we find a form of record for either the home or the theatre which produces similar effects, namely, the sound motion picture. The success of this form of entertainment in the theatre is a clear indication of what may be expected when it becomes available also for the home on a simple and economic basis.

#### Electrical Instruments.

A small group of electrical musical instruments have appeared on the market within the last few years, both in the United States and in Europe. Many more forms, some of extreme ingenuity, exist in the laboratories and promise the production of extremely flexible, readily controlled, and exquisitely toned instruments. The forms in which the public has as yet seen them are necessarily only beginnings, yet they indicate only some of the possibilities of such instruments. As the years pass they will be further developed. Great composers will begin to write music specially suited to them and capable of fully utilizing their astounding possibilities of tone quality, volume, flexibility of control, and pitch. And, finally, virtuoso performers on these instruments will then spring up and render masterpieces which have been composed for them. But that is far in the future.

The electric control of mobile color is also foreshadowed in a number of home and auditorium instruments which have already been demonstrated. Examples of these are the Clavlux of Thomas Wilford and the Colorama of the General Electric Company. The interplay of moving, fabulous forms of color, sometimes softly shaded and sometimes blazing in almost harsh brilliancy, is extraordinarily attractive. Some enjoy viewing such displays without accompanying music; others prefer music and color at the same time. These color symphonies, as they might be termed, can either be produced in a pre-determined fashion from records, or by an individual performance by the artist, or through a combination of these methods.

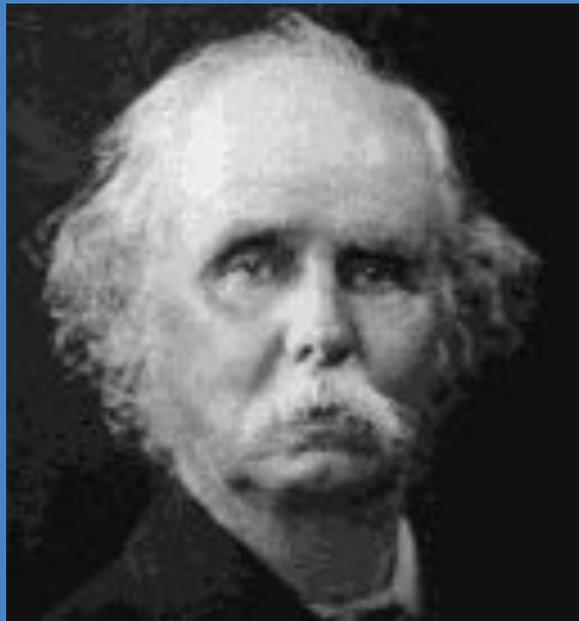
Thus satisfying those who desire to attend the actual performance and those who for one reason or another cannot do so.

To reflect further on how electricity can produce ideal entertainment, media must be carefully considered. Mankind is reached primarily through two channels, the ear and the eye. These channels vary in importance. Some persons are "eye-minded." They particularly enjoy seeing things, and retain visual memories far longer than any other. Other persons are "ear-minded." They listen attentively, readily absorb knowledge through speech or other sounds, and remember others by the sounds of their voices or what they have said. Look back into the important moments of your own life. Do you remember a sight, or a sound,



# work and learning

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Alfred Marshall  
1842-1924

Many various causes have led to the localization of industries; but the chief causes have been physical conditions

Another chief cause has been the patronage of a court.

These immigrants taught us how to weave woollen and worsted stuffs, though for a long time we sent our cloths to the Netherlands to be fulled and dyed. 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

But how did these immigrants learn their skill?



# mysteries of the trade

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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.



# end of localization?

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Every cheapening of the means of communication ... 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. These two opposing tendencies are well illustrated by the recent



# information & the *villagio*



Grandfather:  
Well, I finally finished my  
doctoral thesis.



Woman:  
Way to go, [George](#).



Grandfather:  
Did my research at  
[Indiana University](#).

Woman:  
[Indiana?](#)



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

She asks her [uncle](#) to take  
this all in.



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



Tag:  
IBM. Solutions for  
a small planet.



# distance education



Sinclair Lewis  
1842-1924

"The University of Winnemac ... [has] twelve thousand students; beside this prodigy Oxford is a tiny theological school and Harvard a select college for young gentlemen. The University has a baseball field under glass; its buildings are measured by the mile; it hires hundreds of young Doctors of Philosophy to give rapid instruction in Sanskrit, navigation, accountancy, spectacle-fitting, sanitary engineering, Provençal poetry, tariff schedules, rutabaga-growing, motor-car designing, the history of Voronezh, the style of Matthew Arnold, the diagnosis of *myohypertrophica kymoparalytica*, and department store advertising. Its president is the best money-raiser, the best after-dinner speaker in the United States; and Winnemac was the first school in the world to conduct its extension courses by radio."



# the end of the university?

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**The New York Times**

Israeli Entrepreneur  
Plans a Free Global  
University That Will Be  
Online Only

we can make a free university  
for students all over the world,  
anyone who speaks English and  
has an Internet connection

January 26, 2009

a "stagnant" sector --William Baumol

**against stagnation**

Alvin Toffler

Peter Drucker

John Chambers



# info-education

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"We sometimes view distance education too narrowly, as merely a way to save money. We should expand our vision ...

... and look for opportunities to make money."

Western Governor's  
University

## **PLATO**

(Programmed Logic for Automated Teaching Operations)

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.

**Open University**  
early morning television



# kinds of distance

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**extension courses**

**correspondence degrees**

**the Open University**



# going global

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Allama Iqbal Open University  
Anadolu University  
Athabasca University  
Bangladesh Open University  
China Central Radio & TV  
University  
City College of San Francisco  
Fern University in Hagen  
Indira Gandhi National Open  
University  
Indonesian Open Learning  
University  
Instituto Tecnológico Autónomo de  
México  
Payame Noor University  
Korea National Open University  
Sukhothai Thammathirat Open  
University  
The Open University, U.K.  
Universidad Nacional de Educacion  
a Distancia  
University of Maryland University  
College  
University of South Africa  
University of Phoenix  
Universidad Nacional Autonoma de  
Mexico  
Shanghai TV University

## **the mega universities**

Indira Gandhi (New Delhi) : 2 million

Allama Iqbal (Islamabad) : 1.8 million

Islamic Azad (Tehran) : 1.3 million



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## "open" again

- \* Arizona State University
- \* College of Eastern Utah
- \* Dixie State College of Utah
- \* Johns Hopkins Bloomberg School of Public Health
- \* Kaplan Higher Education
- \* Massachusetts Institute of Technology
- \* Michigan State University
- \* Open Institute of law, Int.
- \* Tufts University
- \* UC Berkeley
- \* University of Alaska Fairbanks
- \* University of California, Irvine
- \* University of Massachusetts Boston
- \* University of Michigan
- \* University of Notre Dame
- \* University of Utah
- \* University of Wisconsin- Eau Claire
- \* Utah State University
- \* Utah Valley State College
- \* Weber State University
- \* Western Governors University
- \* Wheelock College



# endism: 103

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**dodgy definitions**

**dodging definitions**

**looking back**

**looking forward**

**the temptations of determinism**