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The Third Wave ... and the Science

“The Third Wave” is about “society, culture, the media, organizations, science, computers, politics, and economics”
written by Alvin Toffler.

Does it have anything to do with the physics and ... or science?

Wave Theory



• The First Wave

--- the age of agriculture

“people moved away from nomadic wandering and hunting and began to cluster into villages and develop culture”



Wave Theory



• The Second Wave

--- an expression of machine muscle

“the Industrial Revolution that began in the 18th century and gathered steam after America's Civil War ...”

“ ... the information or the knowledge age, and while it is powerfully driven by information technology, it has co-drivers as well, among them social demands worldwide for greater freedom and individuation.”

Wave Theory



- The Third Wave

- the information or the knowledge age
 - ... based not on muscle but on mind

“while it is powerfully driven by information technology, it has co-drivers as well, among them social demands worldwide for greater freedom and individuation.”

Economics Old and New



- In the first wave,
 - wealth was land, and it was exclusive
- In the second wave,
 - wealth diversified into three factors of production: land, labor, and capital.

“General Motors became rich by combining its resources (its factories, its manpower, and its money) ...”



Today's counterpart to General Motors, Microsoft, makes cars that anyone can easily replicate at home (by copying disks).

Microsoft is not drained of its resources when it ships a package of Windows 95. The land, muscle, and money in Redmond, Washington, are not the source of the company's wealth; the knowledge of its software developers is.

“The primary resource in the third wave is knowledge”



Massification and demassification

- A central theme of the industrial regime was centralization and standardization
 - Mass production (car, electronic goods, ... etc.)
 - McDonalds, Starbucks, ...
 - Wal-Mart, Homeplus, E-mart, ...
 - Mass Culture (E-business, CGV, ...)
- Computers make changeovers less expensive.



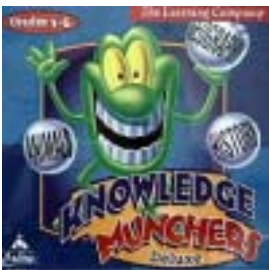
The demassification of intelligence

"It sometimes seems that in the competitive third wave you must be a rocket scientist to survive."

"In the third wave, good ideas can come from anywhere and anyone."

"Conventionally "smart" people without motivation or energy or good health tend not to amount to much."

"The new intelligence will be all over the place. It may mean courage, imagination, entrepreneurialism, warmth, organizational savvy, or street smarts."



Knowledge vs. Imagination



"Knowledge is power."

-- Sir Francis Bacon (1561 - 1626)

"Science does not know its debt to imagination."

-- Ralph Waldo Emerson (1803 - 1882)

"Imagination is more important than knowledge."

-- Albert Einstein (1879 - 1955)

"Science is a way of thinking much more than it is a body of knowledge."

-- Carl Sagan (1934 - 1996)

