THE INFORMATION TECHNOLOGY & INNOVATION FOUNDATION



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Myths and Realities of the Internet Era

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The Information Technology and Innovation Foundation (ITIF) is a Washington, D.C.-based think tank at the cutting edge of designing innovation policies and exploring how advances in information technology will create new opportunities to boost economic growth and improve quality of life. ITIF focuses on:

- Innovation processes, policy, and metrics
- E-commerce, e-government, e-voting, e-health
- IT and economic productivity
- Science policy related to economic growth
- Innovation and trade policy

Myth 1: The Cloud Will Take Over



- "The next big Industrial Revolution (cloud computing) is at hand." (Scott Stewart, *Australian CIO Magazine*.)
- "Cloud computing will top the Internet in importance." (Mike Nelson, Georgetown University)

Reality: The Cloud is Evolutionary, Not Revolutionary



 Cloud will account for an estimated \$100 billion of IT spend by 2015, less than 3 percent of global IT spend. • Myth 2: The Internet Is Empowering Small Business

"Cloud computing has the potential to dramatically level the playing field for small and medium-sized businesses." -Mike Nelson, Georgetown University



Reality: The Internet Is Enabling Firms to Gain Scale

"In last 15 years, the average firm size in the U.S. has increased by 15 to 20 percent."



Myth 3: Web 2.0 is the Driver



• Reality: Enterprise IT and E-Business is the Driver

"The commercial Internet delivers \$1.5 trillion in annual economic benefits to businesses and consumers."



Myth 4: Information Wants to be Free

"Information is a life form... They self-reproduce, they interact with their surroundings and adapt to them, they mutate, they persist." John Perry Barlow, Electronic Frontier Foundation

"Intellectual property will lose much of its value anyway as content proliferates on the net." -Esther Dyson, Release 2.0



Reality: Information Costs Money



Myth 5: Open Trumps Closed

"Many people talk about the Open Source advantages of price and of reliability. They actually miss the biggest advantage of all by doing so. Open Source is about commodity product in a grown up market. It is about competition, choice and putting power in the hands of the consumer. In an Open Source world nobody gets to hold you, the customer, to ransom."

-Alan Cox, The Risks of Closed Source Computing



Reality: Closed Can be Better

"A closed system will have longer, more sustained, but more predictable and controllable set of vulnerabilities."

-AT&T Chief Security Officer Edward Amoroso



Myth 6: IT Doesn't Matter

"IT Doesn't Matter"

-Nick Carr, IT Doesn't Matter



Reality: IT Drives Firm Productivity and Profitability



Myth 7: China Will Dominate the Internet



"Some differences from the West's will fade as the industry and China's economy mature and the country's internet population grows older and richer...Expect more of China's online characteristics to be adopted in the West."

-The Economist, 2011

Reality: English Will Remain the *Lingua Franca* of the Internet





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Myth 8: The Internet Machines Are Taking our jobs

"Workers are, "losing the race against the machine, a fact reflected in today's employment statistics." -Erik Brynjolfsson and Andrew McAfee, Race Against The Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy, 2011)



Reality: The Internet Creates Jobs

OECD estimates that of the top 250 ICT firms, Internet firms accounted for \$18.3 billion in revenue in 2000, growing to \$56 billion in 2006, with employment growing from 47,539 to 93,380.



Myth 9: Neutral is Better

"Neutrality ensures that the Internet remains a free and open technology, fostering democratic communication."

> -Lawrence Lessig and Robert McChesney



Reality: Neutral is Sometimes Worse

"The Internet's openness, its value to innovators in particular and to liberal democracy generally, is greatly improved by the deployment of refined systems of management and economics operating under appropriate, technically-and economically-aware, regulatory oversight."

-Richard Bennett, ITIF



• Myth 10: The Internet Will Have No Gatekeepers

"Intermediaries must add value and re-invent before they disappear and die!"

-Richard Keeves, Smarter Web Strategies



Reality: The Internet Gatekeepers Have Evolved

"There's still a tremendous role for middlemen operations that enable buyers and sellers to do more. But there's no role for someone acting as a "gatekeeper" that blocks what buyers and sellers can do."

-Mike Masnick, TechDirt



Myth 11: "The Singularity" is Near



"In this new world, there will be no clear distinction between human and machine, real reality and virtual reality."

-Ray Kurzweil

Reality: "The Singularity" is far

"While the immediate future of Moore's Law appears clear, the longer term developmental path for electronics is now as, or more, uncertain than it has been for a half century."

- David C. Brock, Makers of the Microchip (MIT Press, 2010)



Myth 12: Change Accelerates Exponentially

"The rate of technology adoption should continue to accelerate so that each new technology outpaces the adoption of its predecessor, and the future will see adoption rates measured in weeks and days rather than years."

-The Digitisation of Everything, 2011



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Reality: Change is Pretty Constant



Myth 13: Internet Brings Unprecedented Privacy Concerns

"With 200 million searches per day, most from outside the U.S., Google amounts to a privacy disaster waiting to happen. Those newly-commissioned data-mining bureaucrats in Washington can only dream about the sort of slick efficiency that Google has already achieved."

-Google Watch Group



Reality: Privacy Concerns from New Technology is Nothing New

"Despite the protection against invasion of privacy afforded by he fourth Amendment to the Constitution, bugging is so shockingly widespread and so increasingly insidious that no one can be certain any longer that his home is his castle - free of intrusion."

-Life Magazine, May 20, 1966



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