# Into the New New Economy: Old Models and New Tools

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We find ourselves today in one of those great divides of economic history, where we can either go forward into the unknown, or go back, with a sigh of relief, to familiar territory. The new economy—dot-coms, new style telecom entrants, new media companies, e-commerce sites etc.—has become an old-style bust. The adults are back in charge. Legacy is in. Balance sheets are in Blue chips are in. We need not listen anymore to the purveyors of hype, about how bits play by different business rules than atoms, how the silicon economy is different from the carbon one, and how a P/E ratio need not have any E that stands for earnings, as long as that e-stands instead for electronics.

All this was mostly hot air, but its promoters had success and riches as their unassailable arguments. And where were the controls to irrational exuberance, the serious journalists, the academics, and, above all, those allegedly rational financial markets? We certainly have learned that financial markets do not work well or quickly as information processors in periods of fundamental change.
In that gold rush, some top American business schools lost 20 % of their students after their first-year summer job, not because of poor grades but because the opportunities of the new economy proved an irresistible siren song. Other students were sitting in the classroom, day-trading with their tuition money. But now students have returned to old-style B2B and B2C again, back to banking and back to consulting.

Now the tables are turned, and the contempt has changed direction. Stars have now become shooting stars. Now the New Economy types are the butt of a global and gleeful outpouring of *schadenfreude.*

Yet it would be tragic if we would let the pendulum swing too far, use this breathing space for smug self-satisfaction rather than regrouping, retooling, and re-planning. The black ships challenging the old economy may have retreated over the horizon, but they will be back. No temporary slowdown should obscure that we have just gone through something very fundamental.

We have gone through arguably the most creative period in business history, ever. Even after the meltdown, more wealth has been created in a shorter time than ever before. (Of course, more wealth has also been *lost* in a shorter time than ever before).

The "new economy" was a gigantic redistribution of resources and control, from the old to the young; from the industrial sector to the service sector, from blue collar to white and black collar, from Europe and Japan to America, from the East Coast to Silicon Valley, from everybody to Bill Gates. And now, the reaction has set in.

We often hear a comparison of the new economy speculative bubble with the Dutch tulip craze of the 17$^{th}$

century.  But that would be unfair to the tulips. Their growers never pontificated about the new civilization and new economy they were creating, all they wanted was to create beautiful flowers. And we should also note that tulips are still a very good business for Holland, which has ever since the bubble burst been the world's market place for flowers. Each night flowers from all around the world converge by air to Schipol airport and trans-shipped again within hours to global destinations. Many of the trades are based today on Internet transactions. This marriage of 2 bubbles—tulips and e-commerce-- seems to work remarkably well, a much better business than the flower dot-com business, which gets more headlines but less volume. Last Valentine's Day; there were 22 e-flower companies in the US. This Valentine's day, there were only 4 such companies left, and of those 2 were shaky, and the other two did most of their business off-line. Whereas the old Dutch flowers business, with its new web tools, is more successful than ever. There is a real lesson here: take old business substance, add new business tools, and you have a powerful combination.

Now that the dust is settling, what have we learned about the new economy?

- *Change is most fundamental in good and economies that are information-driven*

All economic goods are a mix of the physical and the virtual, of the material and the informational. A TV broadcast is purely informational and on one extreme, and a stone quarry is on the other. Most goods and services are in-between, such as tourism or automobiles. There are also differing mixes of processes in producing the good. Airlines produce physical transportation, but use enormous amounts of information systems in the process, much more than garbage collectors, who are also in the transportation business. Typically, firms are the more information intensive in terms of inputs and process the more numerous and volatile the variables are that they need to manage, and the larger the business activities are. Not surprisingly, the change to the new economy has been most profound the when the economic good is information rich and its production is information-intensive, such as financial services.  Change is even more profound where the good in question has not been feasible without the new technology, such as in the case of consumer-to-consumer auctions.

Change is perhaps most disruptive when the good in question used to be physical but now flips to the digital, which might be in store for books and magazines once the displays become truly user friendly. Change has also been profound in the infrastructure that enables information processes, in particular telecommunications. And it has affected virtually every firm in its internal processes.

Different countries are affected differently, depending, among others, on their economic mix. The U.S. had a troubled industrial sector, and the new economy was a way to resume growth. The US society also is capable of change, being perhaps strongest in situations of accelerating change --"2nd derivative" situations. In contrast, Europe and Japan had stronger old economies, and are stronger in managing steady growth –"1st derivative" economies. And less developed countries had, for a multitude of reasons, the greatest difficulties of changing to new economy activities, primarily because these require substantial societal modernization and infrastructure investments.

- *The new economy is not linear but cyclical.*

The digital economy is subject to severe shocks and discontinuities. The industrial revolution was not linear, either. There were recessions and depressions. In the 1830s, 1840s, 1870s, 1890s. Intellectual movements like the Romantic Movement rose in opposition, as they do today. Over-expansion is a hallmark of health, not weakness. Early railroads were vastly overbuilt in the US. One could take 12 different private railroad routes between NY and Chicago alone. There were hundreds of companies making automobiles, motorcycles, airplanes, and microcomputers. One of the functions of slowdown is consolidation. That is, to reduce competition. To reduce the commodification that lowers profitability and investments.

Another lesson we have learned the hard way is that

- *It is more expensive to do E-commerce well than to do offline commerce.*

E-commerce operations are difficult. Vastly more is involved than running a website and a shopping cart. Many systems need to be in place and integrated. Supply chain EDI, Payment systems, Integration with financial institutions, Fulfillment systems, Customer data mining, Production. Customization, Community creation and maintenance, Creation of consumer lock-in by additional features. Intermediaries need to be re-shaped. Processes are accelerated. Domestically and internationally, at lightning speed, with great reliability, with easy scalability, and flexibility of configuration. It's not for amateurs, as a lot of hopefuls have found out.

All this is till truer for the emerging broadband Internet. The costs for consumer e-commerce sites will skyrocket. Text and stills will not be good enough in a competitive environment, and expensive video and multimedia will be required.

What are some of the implications?

Instead of being that frictionless competitive capitalism that people rhapsodized about, many parts of the new economy will actually be a hotbed of market power.

- *Economies of scale are back.*

On the supply side, the fixed costs of e-commerce operations tend to be high, but the variable cost of spreading the service to the entire world are relatively low—the classic attributes of "natural" monopoly with electronic tools, intra-company transaction costs decline. On the demand side, there are "positive network externalities" of having large user communities. Put these three things together –high fixed costs, low marginal costs, and network externalities-- and there are real advantages to being large.

For a while, we could ignore these economies, because the inefficiency of the incumbents masked them, and provided an umbrella. But the inefficiency has declined with threats of competition, and now economy of scale and scope are back, and the small entrants are on the ropes.

The implication is that

- *E-commerce markets will often be less competitive than brick-and-mortar markets.*

This is what this consolidation period is all about. To get out of the commoditization of the new economy, in which companies were running on their financing rather than on revenues and cash flows is worked for a while, with stocks rising, and with the expectation that the new companies would be bought by the old companies for huge premiums. But now, some of the most likely buyers are slowing down, by their own actions. Telecom companies, for example, have mortgaged their credit rating for the licenses of 3G wireless and for international expansion.

- *Traditional brands will predominate for traditional products*.

The new economy favors the big. But is it the new big or the old big? When insecure customers brave into the new economy, they want to feel safe about the deal and the quality of the merchandise, and whether that dot- com will be around next week. Established brands are trusted (But at the same time, such brands will not remain static. The tools of individualization will assert themselves, and create customized branding, and a hierarchy of sub-brands and meta-brands).

Those without quality brand will have to find market niches, and some of those we will not like as a society. The often anonymous and offshore nature of transactions will inevitably lead to consumer protection issues. In other cases, societies and established interests will desire to expand old rules to new activities, such as for e-medicine or distant education or e-stock transactions. This will lead to a situation where

- *E-commerce will be more regulated than traditional commerce*.

This is quite different from the conventional story of the libertarian cyberspace. It is a noble vision, but it will not prevail. There will be too many losers to the new economy, too many problems they can seize, such as impressionable children and helpless adults, for e-commerce to be a libertarian island.

In fact, electronic flows will become so important that there will be entirely new types of efforts to control them. Within a few years there will be attempts to control the velocity of information flows on a macro level, like money

*The new tools*

Thus it seems that the new economy will not look so new, after all. But that would be the wrong conclusion, too. Just as in 2000 some people claimed that the old rules do not apply, we should now not conclude in 2001 that there is nothing new under the sun. To the contrary. The last few years have created a set of enormously powerful tools that have not even begun yet to transform the old economy.

Perhaps the biggest problem for new economy firms was that they had to do at least 2 big things at once: first, to develop new business tools and models. And second, to enter and compete in a substantive market they did not know as well as established old economy firms did.

The new economy firms are retreating, but their tools go marching on. And these tools are now available to the old economy firms.

*Individualization.*

We are moving to 2-way interactivity, customer identification, customer-centric marketing customer self-segmentation, customized marketing, and customized production. All this challenges the basic concepts of the industrial age mass-production and mass marketing. Dell Computers is selling made to-order equipment. Some websites charge people different prices depending on exhibited shopping behavior. But on the whole, business has not begun to integrate this individualization tools into their business processes.

*Broadband Networks.*

In the past decade, the Internet revolution was mostly driven by advances in bit processing technology. Transmission, in comparison, grew more slowly. But that is changing. We are reaching the end of the narrowband Internet as the driver of change. We are now engaged in the next stage, that of expanding to broadband. Networks are growing from skinny to fat. For George Gilder, the rate of transmission capacity increases twice as fast as Moore's law. That is, a doubling every year, or even more. We are moving from the kilobit stage of telecommunications to the megabit stage. Communications become largely distance and time insensitive, flat-priced, ubiquitous and always-on. A commodity.

This capacity and price revolution has not yet been absorbed into economy and business behavior. It will enormously affect mass media and marketing. The velocity of knowledge distribution. And the very structure of markets and of companies themselves. Firms will increasingly become networks, and integrators. Suppliers, producers, and distributions will cluster in networks. The workforce is distributed worldwide. Some of these networked relationships will compete with each other, others collaborate in meta-networks. The ability of firms to be part of networks becomes critical.

- *Machine to machine communication.*

As processing becomes cheap, it will be anywhere. Computers and cell phones have started to be given away for free. People will be the minor part of information generators. We move from person-to-person to machine-to-machine communications. Data machines will be everywhere. The IP protocol will be in every device. Suitcases will complain to airlines. Electronic books will download from publishers. Front doors will check in with police departments. Pacemakers will talk to hospitals. Light bulbs will haggle with utilities. Television sets will download from video servers.

Increasingly, devices will communicate with each other and control business processes, bypassing the slow and unreliable human element for routine transactions.

Many business processes will be automated, such as procurement, reducing input cost. 15% are often promised, 5% are more realistic and add up. Internal and external coordination increase, and production cycle accelerate. Databases becomes a resource used in real-time operational, not an archived resource as in the past.

*Mobility.*

Mobile communications operate at narrowband capacity. Despite the UMTS hype about wireless video etc, we'll be lucky to get ISDN speed. And mobility is not a good environment for most transactions and content. We should therefore not over-estimate M-commerce as the savior for the laggards of e-commerce. At the same time, it provides geographic and temporal ubiquity, and, with adequate security provisions, a micro-transaction billing mechanism. In a next version of WAP it might also have an always- on connectivity, like I-mode in Japan, which is not a matter of higher speeds but of packetization and of a sensible billing arrangement. Always-on, everywhere, is a truly revolutionary development. Because it makes increasingly most people in the world totally connected to each other, all the time. And they will never go back and disconnect. Always-on mobility is also a tool that has not yet been really created and absorbed into the business process.

*Encryption.*

Encryption translates into an ability to create micro-payment systems, which create the economic foundation for many new business activities. Advertising models, and subscription models have not worked. We need direct payment models like the rest of the economy. "If you can't bill it, kill it" will be the test for many electronic transactions. Automatized micro-payment systems will create revenue streams that make business models possible. But so far, they have not been convenient, and have not been absorbed into business processes.

So far, we described new tools of the new economy that are mostly technical. But there are also institutional and psychological tools. These include

*Financing Mechanisms*

Vast institutional network of VCs, angels, incubators, investment banks, and exchanges has emerged around the new economy, and has created financing channels of risk capital of awesome magnitude. These investment changes will not go away.

- *Mindset and style*

The sociologist Max Weber showed us how mindset affected early $19^{th}$ century economic transformation. This is true today, too. The new economy is also a mindset. It has shown us what amazing things it can accomplish. But changing the culture and style of organizations is the hardest thing to change. Change management becomes a priority.

Old and new styles will not easily merge. We are only at the beginning here.

We have not seen yet the virtual organization, the network organization.

*Conclusion*

The new economy is proving to have many similarities in its market structure and policy issues as the old economy, and will therefore be absorbed by it. It has created important business tools, models, and styles that will endure in a new economy.

It was Lenin who said that Communism is Socialism plus electrification. Maybe we can summarize the new economy as the old brands plus digitalization. Brick plus click. The brick aspect creates trust. The Click creates speed, networks, individualization, and style. Brick and click.

The new economy innovators will supply the new tools, which is what they do well. They will continue to get rich in the process. With some exceptions, They will be functioning less as providers of outputs and consumer products—because those are hard to run day in day out and require experience, management, and capital—as much as providers of vital inputs and innovative tools and processes. In other cases, they can package and market elements in novel ways, until traditional companies catch up with them. But on the whole they and their innovations will be absorbed into old economy firms, by acquisition or partnerships. In the process, competition will be les between new and old economy firms, but among traditional firms, based on their ability to absorb these new tools, optimize their processes, integrate their various activities, and streamline their relations with suppliers and customers.

In the process, the new economy of e-business, and the old economy of blue chip brands, become the new new economy. And Schumpeter's process of the creative destruction of capitalism moves to its next level.