

# RELEASE 1.0

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ESTHER DYSON'S MONTHLY REPORT

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## FORUM NAVIGATOR

by Esther Dyson & Jerry Michalski

This year at the Forum we hope to enlighten and enthrall you. We're especially excited about the Forum this year because we're at a time when worlds collide: government and industry, Democrats and Republicans, social and commercial Internet users, Americans and non-Americans. Although the Forum always attracts a large contingent of industry insiders, we try to seed it each year with provocative new people and thoughts from outside our framework. Join us to meet with, argue with and learn from your colleagues and counterparts.

Local to global is a delicate tension. It's the fundamental issue in many current conflicts: Should welfare be a local responsibility or a federal one? What are the boundaries between private and corporate life?

In our own industry, we have a globe arguably controlled by Microsoft, and a profusion of local markets. Or is Microsoft competing in a local market (where it has a monopoly) and about to enter a global one -- where it faces competition from the likes of AmEx and Time Warner? Along with Microsoft, we all face the choice between local success and a broader global market. Not only is our business getting larger; it's becoming more tightly integrated into the world at large. We are no longer a niche market, but part of the fabric of daily business life.

### This issue

This is the first year that we are putting the Forum issue online in a truly hypertext form, with easy cross-references from chunk to chunk. It occurs to us how unified and cross-linked everything is: Brian Arthur to Nathan Myhrvold; Carol Bartz and design templates to IP on Tuesday; Bob Frankenberg to the geography discussions of Monday; and so forth. So read it in chunks, in any order you wish, online or off.

SEE YOUSE IN PHOENIX! →

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**MONDAY -- LOCAL <---> GLOBAL IN THE ENTERPRISE**

*Most pc companies began as small operations, start-ups rather than divisions of larger operations. The pc companies sold products to large corporations, but they often didn't understand their customers' problems. (IBM was a notable exception: It didn't understand its own problems, either.)*

The conflict between local and global challenges all businesses of any ambition. Most productive, creative activity occurs on a local scale; most start-ups are local. The challenge of our times is to take that creativity and implement it on a broader basis, whether through mass production, interactive learning, or templates and methodologies that allow the re-use and improvement of existing knowledge. Brian Arthur (page 23) asserts that returns increase as you become successful in our world; the transition from local to global may increase rather than dilute your market power. The more important you are in the US, the more likely you are to succeed in Russia. You don't run out of resources as you get larger. It used to be that you could grow by accumulating niche markets, but global is not just local writ large or multiplied; it may be local *intensified*.

In the past, companies worried about products and features, market segments and pricing, customer service. Now they worry about more complex issues: business models and the very structure of commerce. They have to define what it is they're selling and what they want to be compensated for. Mass markets are a thing of the past; the value gets added by the purchaser, so the vendor has to be present for each customer to capture the value-added.

Companies are defined more by how they behave than by what they own. It used to be an investor could invest in tangible assets: a factory, land or perhaps intellectual property such as product designs. Now, more and more, a company depends on the persistent performance of individual contributors -- intellectual *process*, not intellectual *property*. Companies and consumers want not just products, but relationships with their providers.

**SCOTT COOK, INTUIT: LOCAL HERO**

Scott Cook faces the future from a successful past. He is our industry's poster boy of success. Bill Gates, the industry's hero of yesteryear, is now a hero to the world at large, but Cook is still *our* hero -- the local boy who made good in competition with a global competitor.

Why is he selling now? Basically, because you can't succeed and be local anymore. Intuit's next step is to become a global company. Its customers don't operate locally anymore; they do business worldwide, and they do business with banks worldwide. To succeed, Intuit must make banks into both partners and customers. But in the world of banks, Microsoft is a niche player -- and Intuit is a gnat player.

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*Watching Intuit merge into Microsoft (if it happens) will be a little like watching your daughter marry a tycoon. She tells you it's for love, and you hope it's true. But somehow, you have your doubts.*  
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By combining with Microsoft, its erstwhile enemy, Intuit can move forward faster in forging alliances with banks. When he spoke at PC Forum last year, Cook delicately noted that banks move slowly: "For those of you who've had the delight of working with the banking industry, that adds new meaning to the phrase 'legacy system'. 'Neanderthal' is, in some cases, a more appropriate term.... Don't expect [much] leadership from the banks." Over the past year, it became clear to Cook that while Intuit could survive nicely on its own, it could prosper as part of Microsoft.

Cook will discuss electronic commerce from his point of view -- a practical one of what makes the market. He sees it as "the overlap of two circles of what consumers really want and what the technology does really well."

"You have to figure out what in Procterland we'd call the missing customer benefit," says this former Crisco brand manager. And of course the customer is not just consumers but also banks. "I haven't met a financial institution that doesn't wish it had a closer relationship with customers," he continues. "They all yearn for that. But they borrowed from packaged goods: They do product management, so they manage products, not customers. Customers know only one product. For example, I've had a Citibank credit card for years and I have all these Citibank branches around me, but they've never asked me to become a customer for any other service."

The fundamental question, says Cook, was simple: "Do we want to be successful fish in a number of ponds, or do we want to really change the world? ...in many more countries and many more segments than we could by ourselves?" As for himself, he's not about to take the money and retire. "Personally, this is what I like doing, and now I can do it in a big way."

#### **PANEL: ELECTRONIC COMMERCE GOES GLOBAL**

Online commerce seems destined to turbocharge business and alter the dynamics of many markets. It will accelerate the pace at which individuals and organizations connect, communicate, negotiate and transact. It has already changed sales support and customer service. In its simplest form, electronic commerce means consumers enter more transaction information themselves and make connections to payment systems more rapidly and cheaply.

Underneath this straightforward aspect of electronic commerce lie other changes, some of them considerably more ominous -- or liberating, depending on your perspective. Financial functions will split, realign and reassemble (e.g., authorization and clearing); guarantors and other intermediaries will emerge and build thriving businesses off the new chaos and uncertainty. Jurisdiction, liability, ownership and other issues central to commerce will be forever changed. Borders that are now difficult to cross will be breached with impunity. Eventually, this plot goes, large portions of the economy will slip underground, avoiding taxmen and other prying eyes (see Release 1.0, 1-95).

#### **Eric Hughes, Open Financial Networks: Money as math**

Eric Hughes loves logic and structure. His longtime interests include program verification and correctness, formal logic, computational complexity, foundations of probability and the physics of computation. He also enjoys

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looking into the future of the global financial system. What he sees would surprise most people in the business. What he is creating -- both in terms of technology and structural frameworks -- may help his vision come to pass.

Hughes' interest in cryptography became a passion when he met David Chaum<sup>1</sup> in 1991 at the first Computers, Freedom and Privacy conference. Hughes worked with Chaum in Amsterdam for a while, but quickly left to follow his own path. Hughes co-founded the crypto-lib group cypherpunks with Tim May in 1992 and wrote the first anonymous remailer shortly thereafter on a dare.

Recently Hughes developed a new cryptographic key-exchange protocol which is more appropriate for broadcast applications than previous protocols. He is also working on cryptographic technology that would allow accounting books to be audited remotely without giving the auditors access to all the information in the books. An expert in developing legal structures to support cryptographic transaction systems, Hughes is also a careful study of the evolution of payment systems and currencies. These capabilities could one day form the foundation of a cryptography-based banking system. Hughes will be the guest author of a future issue of Release 1.0.

Now Hughes is a payment-system designer. His company, Open Financial Networks, is working on transaction systems with open standards and open access. Hughes' goal is to create an alternative system to the current ones, which would reduce the friction of negotiation, audits, clearing and other necessary processes. It would allow smaller players to participate in the electronic economy as micro businesses with minimal costs.

#### **Mike Nelson, The White House: Here to help us!**

Mike Nelson earned a PhD in geophysics from MIT. The experience served him well: "Government processes are like plate tectonics. Having a sense of geological time helps you maintain perspective." He spent a lot of time traveling around the southwestern deserts, in fact, so he should feel right at home in Phoenix.

He also feels right at home in much of the world, since he currently spends almost all his time on the Clinton administration's Global Information Infrastructure initiative; in the past year he has visited four continents several times, and will be arriving at the Forum fresh from the Brussels G-7 meeting. He has worked with Al Gore on science and technology policy for more than seven years, starting as a staffer on the Senate Commerce Committee's Subcommittee on Science, Technology and Space. He got there by way of a one-year fellowship that blossomed into a permanent position. "I handled earthquake research, global warming, ozone depletion, the Antarctic, biotech and computers," he says. "By Congressional standards that made me a specialist." In 1992 voters gave Gore a promotion to the White House; Nelson followed. Today he handles information technology, information policy and telecommunications policy for the White House Office of Science and Technology Policy, where he reports to Presidential Science Advisor Jack Gibbons.

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<sup>1</sup> Chaum is the founder and president of DigiCash, a company pioneering the anonymous electronic payment system profiled in Release 1.0, 1-95.

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About electronic commerce, digital cash and the like, he rejects assertions the government has ignored the issue: "We're working on all the underpinnings: digital signature standards, encryption, cheap affordable infrastructure, intellectual property rights. We have to lay the groundwork first!"

He has top-level security clearance and is frequently the government's point man on the Clipper chip. Precisely because you *can* engage him in a reasonable discussion, he tends to get more of the grief about it than less flexible government spokespeople. "When you talk about electronic commerce, don't forget to mention money-laundering, terrorists, drug dealers," he reminds us. "You've got to worry about these things, too." Personally, intellectually, he is also intrigued with the notion of electronic commerce without money -- "where what you're trading is prestige and fame." (See Release 1.0, 3-93 and 12-94.)

You could argue that most non-government forms of currency will lack credibility -- although there are certainly many governments around the world with poorer credit ratings, than, say, GE Credit or even AT&T. Anyone extending credit to a friend is *de facto* creating liquidity (though not usually currency). Once again, the local-global world calls into question all the established practices born in a world of physical constraints. Why *should* Russians use the ruble for electronic commerce, when dollars or MagiCash (for example) are as easy to manipulate -- and MagiCash may be easier to hide?

What is the government in fact thinking about these issues? Would it like to put transaction amount limits on electronic cash? Or create a kind of ClipperCash system that allows anonymous transactions with a back-door for law enforcement? Will anonymous cash be worth anything without an approving legal system to enforce contracts made with such "currency"? "Sorry, you paid for it with MagiCash; you can't force me to repair it!"

#### JIM MANZI, LOTUS: THE NEW FEDERALISM

Jim Manzi is one of the few ceos in this business to last more than one generation. That doesn't mean he can relax; it just means he has to solve new problems. He has moved the company onwards from dependence on 1-2-3 to a new, still bottom-light foundation on Lotus Notes. His challenge now is to get the world papered over with Notes before anyone else can grab the space. To do so, he has shifted from the high-end marketing approach of a couple of years ago to a more mass-market strategy. He's also forging alliances with communication platform vendors such as AT&T: You can now buy Notes as a service if you don't want it as a product.

Manzi hasn't yet survived the second generation -- but at least he's still in the game. He's often criticized by self-styled insiders for lacking technical vision, but his strength is *business* vision. More than any of his competitors -- and well before them! -- he understood the power of communications that could be made possible by Notes. That is not point-to-point communications, nor broadcasting, but a web, where each point is connected two-way to each other point. The intervening applications incorporate the business rules and policies of the company; the content they distribute is the current, continually updated specifics of customer and competitor activities, internal memos, follow-up reports, pricing plans and the like.

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