

The Thought Leader Interview: Esther Dyson by Art Kleiner

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Photograph by Esther Dyson

Esther Dyson: The Thought Leader Interview

A long-standing champion of high-tech innovation foresees a fundamental shift toward more transparent institutions and a more relationship-driven economy.

by Art Kleiner

The world of media is in upheaval. Newspapers struggle with massive debt while posting their articles free on the Web. Ad revenues shrink as advertisements leap from broadcast and print media to Google and Craigslist. Formerly passive television viewers now post videos on YouTube, one-liners on Twitter, and autobiographies on Facebook. Computer software gravitates from individual hard drives to remote servers. Marketing, publishing, and other media-related industries stagger under the weight of the financial crisis — and nobody, whether content creator, advertiser, politician, or business leader, seems to have a clear sense of what will happen next.

In such a time, perhaps one should turn to the person with the longest-lasting contrarian perspective. These days, that person is Esther Dyson. Dyson made her reputation in the 1980s as an industry insider with an outsider's perspective. She hosted PC Forum, an annual IT-industry gathering founded by industry analyst Ben Rosen. Rosen went on to become a legendary venture capitalist and chairman of Compaq and Lotus,

Art Kleiner

(kleiner_art@strategy-business.com) is editor-in-chief of *strategy+business* and the author of *The Age of Heretics*, 2nd ed. (Jossey-Bass, 2008).

and Dyson bought his old firm, becoming the editor and publisher of *Release 1.0*, the premier venture-oriented newsletter about the personal computer industry. (She sold the company, EDventure Holdings Inc., to CNET Networks in 2004.)

Throughout her career, Dyson has been a pioneering commentator on (or, as she puts it, a “court jester” to) the computer and communications industries. She has championed a diversity of ideas, social networking, design quality, and the pragmatic involvement of business and technology experts in solving large-scale social problems. She has also been a notable participant in the evolution of these industries. She is on the board of the WPP Group PLC, the communications-services group founded by Sir Martin Sorrell; she has been or is a board member of several well-known research- or innovation-related nonprofits, including the Santa Fe Institute, the Long Now Foundation, the Electronic Frontier Foundation, and the Sunlight Foundation. In 1998, she became the founding chairman of the board of ICANN (the Internet Corporation for Assigned Names and Numbers), which oversees the distribution of

Web addresses and is the closest thing the Internet has to a governing administration. She served in that capacity till 2000.

And in both eastern Europe and the U.S., she has been an angel investor or board member for many influential startups, including several mentioned in this interview: Flickr and del.icio.us (sites for sharing photos and bookmarks, respectively, both since acquired by Yahoo), Medstory (a health information site acquired by Microsoft), Meetup (a Web-based service that helps people organize local face-to-face groups, known for its use by both major U.S. political parties), 23andMe (personal genomics), Wesabe (personal finance), Dopplr (travel), Yandex (Russian search engine), Airship Ventures (a zeppelin operator), Space Adventures (space tourism), and XCOR Aerospace (spacecraft). Her connections to space science started with her family. Her father, physicist Freeman Dyson, developed the concept of the “Dyson sphere,” a structure that would allow a highly advanced civilization to use satellites to capture energy directly from its planet’s local star.

Dyson sat down with *strategy+business* in New York in January.

A few days later, she left to resume training as a backup cosmonaut in Star City, Russia (training organized by Space Adventures); her blog on the subject is at www.huffingtonpost.com/esther-dyson.

S+B: Let’s start with your decision to become a cosmonaut.

DYSON: When Space Adventures asked me if I wanted to do the training, I said I would love to... someday. But they said, “No, we mean now.” I wanted very much to do it, but I was too busy. Then my sister had a double mastectomy; she’s fine now, or I wouldn’t tell this story. A few weeks later, as I was juggling my schedule, I found myself thinking, “Now, if I just had a double mastectomy, I could get out of these commitments.” Oops! I realized I would *always* be too busy, unless I just stopped. I said yes to Space Adventures and pretty much put everything on hold until April 2009. Amazingly, they’re all carrying on without me!

S+B: How long is the trip to space?

DYSON: The “tourists,” as they call us commercial guys, go up to the International Space Station for about 12 days. I’m a backup to

“People don’t go online to give attention, but to *get* it. They want to perform and to be heard, to be present.”

[software innovator and former Microsoft executive] Charles Simonyi, who has already gone to space once. I’m not likely to actually go on the flight, unless I get very lucky. [Simonyi ultimately made the flight in the spring.]

There are a lot of things to learn, about dealing with authority and not being in control, and about space travel itself. I’ve been investing in this area for years; I’ve gone on weightless flights. But my knowledge was mostly abstract. You can’t really read a book to learn French; you have to go to Paris and absorb it. Now I understand atmospheric pressure and life support from the point of view of an actual participant in space flight.

One of the coolest moments so far happened while I was learning the radio system. I had to pretend to call the Japanese module and say, “Vladimir, I have a problem. Can you come help me?”

Vladimir said, “Sure, I’ll fly right over.” That’s how they get around on the station, of course; they fly.

S+B: In the global economic melt-down, one of the most troubled industries seems to be media. Why is that?

DYSON: The online and media worlds are dealing with a crumbling economy across almost all sectors. Advertising revenue is going down; venture capitalists are getting nervous. And separately, there is a change in the way people spend their time and buy things, as a result of being online, that has begun to affect all marketing and media enterprises.

A lot of marketers call the Internet an “attention economy.” They are looking for consumers who will pay attention to their product, and they try to calculate consumers’ propensity to purchase. They think that *attention* means *intention*. But it doesn’t. (I credit Michael Goldhaber for that point, which he made very eloquently in a 1992 article in *Release 1.0* on the “attention society.”) The reality is, people don’t go online to *give* attention, but to *get* it. They don’t want to be part of the audience. They want to perform and to be heard, to be present. It’s an almost biological urge, like the urge to spread our genes and keep the species alive.

This is one of two big phenomena defining the Internet right now. Humanity never had the ability to present itself to people so broadly

before, but the social media of the last few years — YouTube, MySpace, Facebook, Twitter, Flickr, del.icio.us, LinkedIn, and so forth — make it possible. You can say, “Well, this isn’t that new; people always had family scrapbooks.” But it was never possible to share them so easily or widely. It’s interesting to see how strong the drive is. All these services let you post your news all over; you may be sleeping, but your image and news are on Fred’s Facebook News Feed when *he* is awake.

That’s why digital media are replacing old media so rapidly — and why this new era is so difficult for marketers. They need to learn to join the conversation rather than interrupt it.

S+B: What’s the other phenomenon?

DYSON: It’s the quantification of everything. Not just marketing data — everything. Five years ago you’d read about diabetics who had to take their blood sugar readings or about these weirdos who put on pedometers when they walked. Now, that kind of measurement is everywhere. Web sites that seem at first glance like entertainment or service media are really devoted to managing and interpreting cus-

“After the recession, audiences will be much farther along the path of spending time online, rather than with TV or print media.”

tomers’ data about themselves. Mint and Wesabe track your banking data and financial transactions. Skydeck organizes cell-phone records; you can see whom you call most frequently or whom you used to call but haven’t called recently. You can compare your phone call patterns against other people’s. 23andMe does the same thing for genomes. The most fascinating thing in the world is a mirror.

These sites are great places for marketers to sponsor. But it’s not the same as other forms of sponsorship; the marketers need to be relevant — but not controlling. They’re used to being in charge. But this type of media is full of people being active without them.

S+B: But isn’t there also a huge “silent majority” of people who just want to be passive consumers, whether online or off?

DYSON: I don’t know, because, after all, they’re silent. Yet I’m amazed at how many people are jumping in actively. The Pew Research Center has statistics on this. [In January 2009, Pew published survey results that 35 percent of adult Internet users had accounts on a social networking site and 75 percent of

adults between 18 and 24 had them; furthermore, the numbers were growing. See “Social Networks Grow: Friending Mom and Dad,” by Amanda Lenhart, at <http://pewresearch.org/pubs/1079/social-networks-grow>.]

Interrupted Conversations

S+B: How do you see online marketing evolving?

DYSON: Traditional advertising, a major source of income for traditional media, is under threat. Even after the recession ends, audiences will be much farther along the path of spending time online, rather than with TV or print publications — unless it’s with their Web-based versions. Marketers will use the new media to interact with consumers directly, leaving the traditional content providers in the lurch. Increasingly, consumers are interested in talking to one another, rather than reading the precious words of the experts. That doesn’t mean the death of professional content, but it does mean a dramatic change in the content providers’ business models.

The music business hit this wave first. They started out complaining that people were stealing

their music, but really their cost structures were out of whack. Over the last few years, the successful labels have refocused themselves on helping artists manage their careers and market themselves. The concert business now is booming, amazingly, while traditional sales of recorded music are not.

Newspapers have to go through a similar transition now. They had a business model that was fine when the classifieds paid for the news — lots of revenue that both required and supported staffs of thousands. But now Craigslist has replaced those classifieds with a staff of only perhaps 50 people — with dramatically lower costs and revenues. I have a lot of sympathy for news media — not necessarily for the owners, but for the holy craft of journalism, which I think is sacred and should be revered. It may need to be kept alive by foundations such as Paul Steiger’s ProPublica and the International Consortium of Investigative Journalists.

Meanwhile, marketers will have to integrate themselves into conversations already taking place on the Web. And most people aren’t having online conversations about ketchup or toilet tissue; maybe those aren’t

good things to advertise online, or you have to be really creative. How about a “who smells best?” site for a deodorant marketer?

A lot of marketers are now excited about behavioral targeting, which means tracking consumers’ behavior across the sites they visit and showing them ads relevant to what they’re posting or where they’re visiting. So they barge into an ongoing conversation, talking about their product at a time and place where consumers aren’t really that interested and feel that their conversation has been interrupted. Yes, I may be planning a trip to Paris, but just now I was talking to Alice about my weekend in Moscow and I don’t want to hear about your round-trip specials!

S+B: What do marketers have to do to reach people?

DYSON: The really good marketers will become much more clever about what they do, and engage with people more effectively. Conventional media will lose a lot of those marketers, because the marketers don’t need the media as much anymore. Coca-Cola used to need *Time* magazine or television to reach consumers. Now Coca-Cola can

sponsor contests and get people to put Coke badges and links on their own Web sites. Assuming the same number of viewers, would you rather have your logo next to a news article or on the home pages of thousands of consumers who are fans of your product and proud to say so to their friends?

I published an op-ed in the *Wall Street Journal* last year [“The Coming Ad Revolution,” February 11, 2008], which basically said what I just told you. I wrote about the brilliance of search advertising: The only people who get the message are already looking for that item. This is the basis of Google’s success.

But people spend a lot of time online *not* looking for something, or at least not for something that can be bought or sold. Marketers need to understand that the Web is not about them; it’s about *us*. Marketers and media sites keep thinking, “Well, if we can only tweak our banner ads right, we can get the same success rate as Google.” But they can’t, because a banner ad is usually shown to someone who is not looking for the item advertised.

S+B: How well do marketers understand this distinction?

DYSON: After the *Wall Street Journal* article appeared, I got a number of letters that said, “I read your piece. It was great — and I want to tell you about my wonderful e-commerce site or my new advertising tool,” which reinforced my view that media companies, and marketers, aren’t listening. They saw the words *behavioral targeting* and just assumed it was yet another article about how great it is to be able to track consumers across the Web. They saw a keyword and delivered their preprogrammed message, in-

stead of taking the trouble to listen to what I was saying.

Another place they fail is their secretiveness around cookies and other ways of tracking people’s online behavior. It comes across as lying to people and secretly watching them, instead of listening. It would be much more effective to be transparent, openly acknowledging how tracking works, and using it to engage with people. I like having people know what I want, as long as they aren’t snooping on me. When I enter a store, I expect the clerks to say hello and pay attention, or at least not to ignore me. What I don’t want is for them to hide behind a two-way mirror and spy on me.

S+B: What do you say to the media companies that are trying to compete for advertising dollars online?

DYSON: They will need to get over it. Google’s business is inherently more profitable than any other form of online advertising. It’s just-in-time marketing to people who are already looking. There is no way to build that kind of business from content-driven or behaviorally targeted marketing, at least not on a large scale.

There are other great business models besides Google, but they’re all relatively small. For example, I’m an investor in the Web site Dopplr, where people post travel plans. “I see you’re going to be in Moscow next week. So am I. Let’s have lunch.” And it quantifies everything: How many miles I have flown this year versus how many you’ve flown. Or “What are my friends’ most frequently visited cities?” I suggested to British Airways that they join as a vendor; I would gladly “friend” them. If they joined, they could see that their

“Using Facebook doesn’t cost anything. Yes, some resources are consumed, but it’s mostly outside the commercial sphere.”

Dopplr friends are going to Moscow in January, and could offer a special fare. Or if 12 people are going to the same conference, they can offer seating in the plane together.

S+B: Won’t this come across as an invasion of consumer privacy?

DYSON: No, because when I accept a person as a Dopplr friend, I have asked to have that person be aware of my plans. It’s no more invasive than letting your boyfriend hear you say, “I would like a sweater this Christmas.”

Another airline tried an offer to introduce their premium frequent flyers to each other on the airline’s Web site. I thought, “How dorky is that?” I’m not interested in connecting with other people who fly a particular airline. I am interested in making better connections with the people I already know, and perhaps getting them to share a flight with me. This airline had the right general notion — to engage with their customers directly — but they were tone-deaf about the relationship. They would do better going through Dopplr, because consumers don’t necessarily want a brand-specific site. They want sites where the brands join, just like the people.

The Nonmonetary Economy

S+B: What impact will this have on the economic future of, say, the media industries?

DYSON: As science fiction writer William Gibson put it, “The future is already here — it’s just not evenly distributed.” We’re starting to see the impact, first in professions like journalism, where the boundary between professional and amateur is unclear. But one underlying issue is a decline in the importance of monetary rewards for work, at least in the part of the world where people’s basic needs are already met.

Businesspeople still don’t get the strength and importance of nonmonetary markets. Marketers assume that people want to do things that cost money — and therefore generate revenues for someone. But using Facebook doesn’t cost anything. Yes, some resources are consumed, and the site needs to be paid for somehow, but from the users’ point of view, it’s mostly outside the commercial sphere. In general, more and more people will spend their time on free entertainment and activity, just as they did a century ago. Twenty or 30 years from now, you’ll see

some parts of the world much richer, the West *relatively* poorer than it is today, and much more of the economy returned to a non-monetary, non-transactional, relationship-driven base.

S+B: How would that be different from what we have today?

DYSON: A few years ago, I looked at Internet and communications spending in some former Soviet states, such as Estonia. Most people there are well educated, but they don’t have a lot of money. They spend a high proportion of their disposable income on Internet access and cell phones. After paying their monthly fees, they usually don’t spend much on anything else; they opt out of the commercial market, and use the media largely for communication rather than buying things.

I think consumption patterns will shift toward that model. Rather than buy a T-shirt with a logo, a teenager will just post a badge on a Facebook page. This shift will fit in well with a much more frugal world. A lot of people in the West are discovering that they have more things than they really need. Now they have a way to spend their time that costs almost no money. The eco-

conomic downturn will accentuate this trend, and many people won't ever really go back.

S+B: Do you really think that could happen on a mass scale?

DYSON: It's already happening. Many people work much harder on a World of Warcraft role-playing team than they ever work in a paid job. They are very skilled and they do painstaking work, usually for only brownie points and recognition, because that work gives them a feeling of control and camaraderie.

Inventory management requires many of the same skills as World of Warcraft. Could you actually get teams of 12-year-old boys to do inventory management? They would do very well at it if they saw it as a game. But how could you motivate them?

It's a mystery, and as an investor and as someone who'd like a better-run world, I'd like to solve it. Whatever makes work unpleasant, it's often not really the nature of the task itself; it's the involuntariness, and the fact that you can be punished by the person running the game.

But if World of Warcraft isn't work, it's also not traditional consumer entertainment. People pay to use the platform. The challenge for marketers is to fit into that model. And so far they've been clueless.

Marketers who want users to put the marketers' logos on their own profile pages will have to win the favor of those users. The profile owner probably won't ask for money, and the marketer shouldn't pay her, because it will devalue her endorsement. She might be a teenage girl with a popular site. She won't let some dorky brand sponsor her page. She wants her friends to

see the brands she likes. That Web site is like a T-shirt with a logo, which people pay to wear. People might even pay for a cool ad that they can put on their site. And if they're in an older generation, haven't you ever heard someone brag about being a premium frequent flyer on their favorite airline? It's the same underlying emotion.

It will take some luck and skill to get through the transition to the next economy and keep enough people employed. Personal services will continue to grow in importance, because they are the one thing that you can't export or shrink. Everything else will get more efficient. The economy *should* be spending more on health care and other personal services: not necessarily on manufacturing drugs, but on the people going around and giving little old ladies massages and laughing with children in nurseries.

"Address Questions to Yandex"

S+B: How do you square this concept with being a venture capitalist, where you have to provide returns?

DYSON: I'm not saying you can't make money; I'm just saying business models are changing. Basically, I invest in "new stuff" that I think should exist or that I don't think is supported well enough by other investors. I invest in things that I don't think are being done elsewhere, and that I want to make happen, and where I think I can be helpful. I try to avoid the "30th online video-sharing Web site" startups. I usually don't invest unless I like the people, and everything I've supported is a little off the beaten track.

I'm currently on the board of Yandex, which is sometimes de-

scribed as the Google of Russia, though Yandex was started first.

S+B: Yandex is a Russian-language search engine?

DYSON: Yes. It was started in the late 1980s, and has something like 50 to 60 percent of the market share in search in Russian. It's a great place to work, and the people have a good sense of humor. For example, at the bottom of every escalator in the Moscow metro is a glass booth for the escalator monitor — usually a grumpy-looking woman. There's a sign on the booth that says, "The monitor does not give consultations." Meaning, don't ask her for help. It's a Soviet-style formulation that evokes the opaque past. Yandex bought ads in about half the subway cars, saying, "The conductor does not give consultations...so please address your questions to Yandex."

Everyone got the point. As Yandex does things like that, people's expectations of what is possible start to change, even in Russia.

S+B: You mean beyond the subway ads themselves.

DYSON: In December I took the metro in Moscow with a friend and his son. Our subway train was surreal: One wall was like an art gallery, with large, painted reproductions that you could look at from the seats on the other side. I looked up "metro train art" on the Web when I got home, and it turned out to be a single subway train running as a promotion for "the year of the child" and art education. I clicked another link or two and found a schedule for when this train runs.

Ten years ago that would have been impossible. But now, the online world is making everyday life in Russia so much more efficient

and transparent. One popular site, www.apteka.ru, started as a list of which drugs were available in which drugstores — so you didn't have to waste time going from one store to another. Now, it's a regular e-commerce site. If you want to know the suburban train schedules, you can go to www.tutu.ru. (In Russian, trains go *tutu* instead of *choo-choo*.) In a country where many people still stand in line to pay their utility bills and where most people don't know how to read maps because they were discouraged in the Soviet Union, sites like this are something of a miracle.

I first went to Star City in 1989, but I never knew where it was, just that it was northeast of Moscow somewhere. This year, I have been using a BlackBerry with GPS, and to be able to see where I am on a map in Russia is amazing. Without a map, you can't see yourself in context, whether it's physically in space or in relation to all the other people you know. These little changes make a great difference, and then people start asking themselves, "How could things be done better?"

In the West, we are further along. The same changes are happening in the corporate world, and physical objects are becoming full of information about themselves. The opaque institutions around us are becoming semitransparent, in ways that people care about.

Twenty years ago, if you bought a tube of toothpaste, it might have had the address of the manufacturer so you could write to it if you had questions. Then they added a toll-free number. Now it includes a Web site, and you can find out more about the ingredients. And there are third-party Web sites, like a project called Barcode Wikipedia, where

information is posted that the manufacturer might not volunteer (until challenged): for example, where products are manufactured, and whether children are used in the factories. As an avid swimmer, my dream is that every pool in the world will have a sensor device linked up to a server that will report its temperature and post it online.

Promoting Open Governments

S+B: How do you see this type of transparency evolving?

DYSON: One early leader was Amazon. You could find out what books it had on a subject, when they would be delivered, what other people thought of them, and how the price compared to prices in other places. Next, third-party sites sprang up to help compare stores and dealers, and to rate the institutions of commerce. The same thing is starting to happen with insurance and financial services. And people are beginning to expect the same transparency from government.

I'm on the board of the Sunlight Foundation, which was founded in 2006 by Mike Klein and Ellen Miller, with the mission of making government more transparent. Our first challenge was simply to get the members of Congress to post their schedules. If they want to post that an hour is private, that's fine. But if that hour was actually a lunch with a lobbyist, then they (and their aides) would have to lie to conceal it. There's no way to enforce full disclosure, but by creating an explicit process and expectation, we reset the norms. If you met with a lobbyist and you're not ashamed of it, simply say so. We can make our own judgments. And if you meet with many lobbyists, at the expense

of other types of meetings, we can make judgments about that, too.

Sunlight is funding or starting a variety of open-government information projects: posting information about bills under consideration; lists of earmarks; tools for collecting, manipulating, and visualizing data from all kinds of public records. It's God's work.

S+B: Is it a global project?

DYSON: Right now it's focused on the United States. But we would love to see clones all over the world. The tools we fund are open source; you can use them on Russian data as easily as on U.S. data. But, as you can imagine, it's not that easy to get the data here in the U.S. — and it's even harder elsewhere.

S+B: Are people ready to manage this level of detail?

DYSON: It can be confusing. One of the best books on this subject is Barry Schwartz's *The Paradox of Choice: Why More Is Less* [Ecco, 2003]. He points out that it's onerous to have too many choices. As many marketers know, it's better to give people a simpler set of options — not just because it's confusing to have more, but because that creates

“We need to bring economics into Internet security. We need to deter spam at the source by charging individuals to send e-mail.”

a feeling of too much responsibility for the outcome. You don't want to make a mistake. There's a similar paradox of choice in philanthropy: If you're confronted with helping starving children in Romania versus raped women in Kenya versus earthquake sufferers in China, you feel overwhelmed and end up not helping anybody. Psychologically, we're not equipped to handle knowing too much — including all the good things we passed up and the bad things we didn't avert.

At the same time, we're learning. If you had told people 10 years ago, “You're going to be managing permissions and access controls to your online profiles for hundreds of people,” they would have said, “Oh, that's *way* too complicated.” And now, everybody does it. You do it without even noticing, on Facebook and Dopplr and MySpace and the like. Different people have different rules for who they'll interact with and different sets of friends and contacts. It turns out that people have an amazing ability to manage this stuff; teenagers, for instance, spend a lot of time doing it.

S+B: What's your view of software moving online and the greater

prevalence of cloud computing, wherein the computer becomes an inexpensive appliance and applications reside on the Web?

DYSON: It will absolutely happen. Two issues may slow it down. First, the rest of the world, outside the U.S. and western Europe and some parts of Asia, has computers, but connectivity is often terrible. You need to be persistently and reliably online for cloud computing to make sense. And many people are connected to the Internet through mobile phones rather than through PCs. They need more intelligence in the cloud because they have less locally. In the long run, yes, everything will be connected in real time.

Second, we need to get better at bringing economics into Internet security. It's like fighting drugs: Focus on economics rather than a fruitless “war.” For instance, we need to deter spam at the source by charging individuals to send e-mail. It should be priced low and creatively — like making the first 100 e-mails per day free — because we don't want to penalize villagers in India or kids with no budget.

As for people whose computer has been taken over by zombies or hackers, the best way to make the

Net secure is to get the Internet service providers (ISPs) involved. They have a direct relationship with the users that no one else has, including the computer manufacturers. The ISPs should somehow be liable for abuse and be able to pass on the costs of protection to their customers. Someone who doesn't want the ISP's security or restrictions could opt out, but then they would have to post a bond with the ISP — kind of like drivers' liability insurance. ISPs could compete on the basis of their security services. Until the costs of abuse are assigned to entities capable of stopping the abuse, it's not going to get much better. [See “Watching over the Web,” by Thomas Künstner, Manuel Kohnstamm, and Stephan Luiten, *s+b*, Spring 2009.]

S+B: Is there a role for ISPs in subsidizing content creation, such as having two cents of individuals' monthly payments go to a fund that supports content creators?

DYSON: Not unless the proceeds are parceled out according to usage. Otherwise, who decides who gets the two cents? +

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