2011　2012　2013　2014　2015

2015

2005 Map of the Decade

The future is a look around the corner, a different perspective on the place we live right now.

The perspective this year is sober. We humans are fundamentally changing the face of the earth. We are about to become a predominantly urban species, living in megacities of over 20 million inhabitants. We are altering the global climate, creating extreme variations in intensity of natural weather events. We are becoming more extreme in our political and religious views and more dependent on complex, and ultimately vulnerable, technological infrastructures.

At the same time, we're investing our time, money, and intelligence in a new degree of sociability—using new technologies to connect, cooperate, and experiment with new forms of economic organization that are much more social than transactional. These experiments are both disruptive and promising; in the end, they may be lifesavers for our species.

This *2005 Map of the Decade* is a matrix of the bright and the dark, a look at six big trends and how they play out for people, places, markets, human practices, and the human toolkit. As always, we're interested in the intersections—the focal points of change.

A map, of course, is not the place. It's an abstraction. And this year, we wanted to be a little less abstract, a little more concrete. So we've added some "artifacts from the future." Think of them as trading cards from the end of the decade, something you might find in someone's hand as we turn that corner to look ahead. Pass them on to your colleagues to start them thinking. Or use them to start a group conversation. And as always, feel free to contact us if we can contribute to these conversations.

PEOPLE

Human economic identity shifts
In the first half of the 20th century, people defined themselves as workers and banded together in labor unions. In the second half of the century, people sought power, not so much as workers, but as consumers, and consumer advocacy groups thrived. Now, people are shifting their identities again—focusing on their ability to create and co-create and adopting tools and organizational practices that foster both self-expression and collaboration.

Smart networkers define the leading edge
A cohort of people with traditional networking skills and new media practices is defining a new index of networking intelligence—a networking IQ—that sets them apart from others. These smart networkers tend to stand at the leading edge of market trends, making distinctive choices about everything from health to home products to entertainment.

Evangelism and fundamentalism grow
Worldwide, in every major religion, it appears that fundamentalist sects are increasing in popularity. Not only do these sects adhere more strictly and literally to their religious doctrines; they also reject the separation of sacred and secular life that has characterized much of Western culture over the last century. The result will be more conspicuous presence of religious practices and beliefs in everything from politics to the workplace.

People make their own worlds
Extending the trend toward choice and customization in everything from media and appliances to food and health care, people are becoming more active participants in creating their own worlds, whether it means do-it-yourself home projects, peer-to-peer media exchanges, or open-source collaboration. The result: a much more deeply personalized world.

Humans become an urban species
During the course of this decade, for the first time in history, more than half of the world's population will live in cities. The shift to cities will be greatest in developing countries, which will have 14 of the 20 of the largest cities. At the same time, small cities—with populations of less than 50,000—will be among the fastest growing in both the developed and developing world. All will strain existing institutions to provide both the infrastructure and social structures necessary for healthy human life.

It's harder to be healthy
Even as people have higher expectations for health and longevity, it will become increasingly difficult—and expensive—for people to achieve good health. For the first time in over a century, we may well see a decline in health indicators—as longevity and fertility drop in some regions and obesity and chronic disease grow.

The boundaries of the body are redrawn
As technology extends the ability of the body to adapt to more demanding physical and social environments, the sense of a more or less stable human self, defined by the so-called "natural" biological body, will be questioned. Differences in technological strategies and identities may drive a very real process of human speciation.

PLACES

Local value grows
Economies of connectivity—combined with a growing fear of global forces—will create a revival of localism in the coming decades, as communities experiment with new ways to build their local wealth. Interra's card-based grassroots philanthropy, local and regional sustainability efforts, and experiments in dialog and deliberation will begin to redefine civil society from the bottom up.

The environment wakes up
Pervasive computing will begin to turn physical places into *aware contexts*—that is, environments that recognize people, information, and activities and then respond appropriately. A triad of semantic processing, wireless connectivity, and material sensing will provide the technological infrastructure for these aware environments.

Public places become personal spaces
This decade will become the decade of information in-place—geocoded data will be linked through the Internet and accessible through a variety of mobile tools from cell phones to augmented-reality devices. The result will be an increasingly first-person view of places, where rich streams of personalized media "redraw" streets, storefronts, and even people to match personal interests and preferences.

Cities become the new wilderness
The emerging megacities of the world will constitute a new kind of wilderness, resembling the most extreme ecologies in nature and eliciting adaptive survival strategies. Meanwhile the old wilderness will become increasingly threatened, as people attempt to escape urban congestion by moving into fire-prone mountain regions and disrupting ecologies of wildlife—putting both themselves and other species at grave risk.

Climate variability hits home
The gradual increase in global atmospheric temperature over the last 30 years will have unavoidable—but unpredictable—impacts in the next 30 years. Natural weather events will be intensified randomly, producing some years that seem perfectly natural and then suddenly producing life-taking hurricanes, floods, droughts, and fires on a scale we're unprepared for. Many of these events will affect the most populated areas of the world.

Health geography reveals risky places
As place-based information becomes increasingly accessible, health information will be no exception. Increasingly, people will be able to map disease agents, vectors, hosts, and environmental factors to see health risks laid out in physical places, advancing the geography—and hopefully public policy—of health. Such maps could also inform better biodisaster planning.

The built environment gets instrumented
The build environment has become as complex as the natural environment. Increasingly, sensor-based technologies will be used not only to track goods and manage logistics, but also to monitor and manage the complex, interacting environments of daily life—from homes and automobiles to workplaces, restaurants, and concert halls.

MARKETS

Grassroots models create an economic revolution
The 1960s–70s were an era of extreme social innovation leading to the so-called counterculture. In the 1980s–90s, the locus of innovation shifted to technology, producing the Internet revolution. Now these two transformational movements will play out on the economic scene, as an intensely social, technologically supported grassroots economy comes into its own.

Connectivity drives economic value
As economies of connectivity become increasingly visible—through social accounting tools and various kinds of network indicators—innovative business models will build on that connectivity to create new wealth for businesses as well as communities. The result: GDP will shift by sector and region, disappearing from some industries and building others. These shifts will be the source of significant economic instability over the next few decades.

The Chinese Internet becomes a global phenomenon
Just as China will soon lead many of the global markets for manufacturing, from consumer electronics to automobiles, the Chinese-language Internet will also vie for global leadership. By the end of 2005, the total number of Chinese-language users of the Internet will equal two-thirds the worldwide English-language users. A domestic side effect: the growth of Chinese smart mobs targeting corruption in government and business.

China buys the marketplace
Among Chinese young people, business is the future. Personal success—even heroism—is defined in terms of business careers, while big business in China plays out the same story, taking symbolic victories such as the acquisition of global multinationals in markets as diverse as mining, pharmaceuticals, telecom, and personal computers. The mood is both optimistic and nationalistic.

Regional alliances shut out United States and its allies
After more than a decade of leading global free-trade alliances, the United States will find itself increasingly shut out of both trade and military alliances. ASEAN Plus Three, the European Union, and the South American Economic Community are all positioning themselves to resist U.S. dominance.

Market forces redefine the health economy
Major impediments continue to plague the traditional U.S. health care system, from uninsurance to a shortage of health workers to administrative waste. At the same time, a health-oriented, aging population continues to redefine many consumer markets in terms of their potential health benefits, including food, cosmetics, and cleaning products. The result will be a broader definition—and larger market value—of the health economy.

Products get social, services get smart
As objects get plugged into communication networks—whether through IPv6 addresses or self-configuring sensor networks—they will display some of the characteristic features of nodes in social networks. Meanwhile, connected devices such as cell phones and iPods will increasingly serve as intelligent servicing platforms, diagnosing, updating, reordering, and otherwise generally supporting the array of increasingly infomated products.

PRACTICES

Production, distribution, and property get revamped
The last few years have seen the invention of several new economic structures that have the potential to redesign our basic economic processes of production, distribution, and property rights. Open-source production models, peer-to-peer webs of exchange, and commons-based property rights systems are providing an alternate model for organizing economies on a local and global scale.

Pervasive computing drives new sociability
While computing over the last few decades has focused on increasing productivity from the factory floor to the executive suite, pervasive computing will be driven increasingly by social goals of connectivity, reputation, and identity.

Dark mobs get smart
Smart mobs have already demonstrated their ability to change the direction of entire nations. But as mobile technologies permeate the culture and the lessons of smart mobs are adopted more broadly, expect the darker side of mobs to benefit from some of these strategies—from organized crime and terrorists to those motivated by traditional lynch-mob emotions.

People get religion—anywhere, anyplace
Religion, like other practices, is becoming more mobile. People use their cell phones for everything from downloading daily prayers to joining global prayer circles at designated times. And even as massive evangelical churches are attracting new members, a counter-trend toward more personalized religions—including lay creation of religious content—is growing.

Management focuses on readiness and cooperation
As the military has discovered, the world is becoming more volatile, uncertain, complex and ambiguous—a VUCA world, as they put it. In this environment, more and more managers will shift from a problem-solving orientation to one that views the world as a series of dilemmas in which traditional concepts of "winning strategy" don't work as well as cooperative strategies and an ongoing state of readiness.

Infrastructures are neither ubiquitous nor lasting
In a world of rapid urban growth, scarcer resources, and increasing mobility and migration, building and maintaining basic infrastructure will be an ongoing challenge, and the concept of ubiquitous infrastructure will likely give way to more temporary, localized, and ad hoc solutions—in effect, creating temporary cities for bounded purposes or lightweight, portable, and personalized infrastructures. Technologies that were once intended to provide independence from the grid in rural areas could well become tomorrow's urban solutions.

Life becomes a pervasive game
As the barriers between physical and digital spaces come down, people will move seamlessly between digital game spaces and urban neighborhoods. The intermingling of alternate-reality games and real-life interactions in physical–digital space will create a culture of layered realities, where strategies from the world of gaming will increasingly be employed in non-game situations.

TOOLS

Technologies of cooperation define a new strategic toolkit
An emerging set of social technologies—from self-organizing mesh networks to social-accounting tools and collaborative filtering—is greatly expanding human capacity to cooperate. These technologies will drive experimentation with new forms of cooperation and ultimately define a new toolkit of cooperative strategies for resolving complex social dilemmas.

Media become personal, collaborative
In the identity shift from consumer to creative, digital technology will turn the world of media into a very personal world, as people take advantage of simple tools and a worldwide platform to express themselves in everything from Web logs and wikimedia to animated game sequences and films. At the same time, the social nature of these tools will encourage sharing, appropriating, and reinventing other's inventions in a rapid stream of collaborative innovation. The impacts of this innovation will run deep in our social and economic systems.

Security drives self-configuring sensor networks
Self-configuring sensor networks are arguably the future of computing, and while they may seem socially and economically distant today, they are already finding their first applications in security—monitoring valuable resources of all kinds, from oil pipelines to forest ecologies to urban infrastructures. With the ability to be dropped into harsh terrain and configure themselves into intelligent sensing systems within minutes, they will be a good fit for the ad hoc infrastructures that will increasingly define a cybernomadic society.

Location technologies drive urban computing culture
The next decade will see the advancement of several technologies that will form the basis for a global geoweb—an Internet of geocoded data linking information to specific places on the planet. The potential of this geoweb to drive an urban-computing culture is already evident in major cities, particularly in Europe where funding for culture and arts supports experimentation. The key features of this culture? A deep layering of place with social narratives of all kinds and a reclaiming of public spaces for social–artistic expression.

Personal chemistry management as personal hygiene
As scientists get smarter about controlling chemical interactions at the molecular level, people are becoming more aware of their own body chemistry—and intervening in it more often to achieve their own ends. They will be increasingly savvy about food chemistry; more likely to use drugs to control their moods, personalities, and cognitive abilities; and more engaged in monitoring their body chemistry with greater precision.

Consumers turn RFID to their own ends
While retailers drive a logistics revolution based upon RFID tags, the most transformative applications of RFID are likely to be those developed by consumers toward the end of the coming decade. Expect people to create and program their own tags for everything from photos and kid's art to antiques and family treasures. With equal efforts, they will invest in tag-based services and devise ways to subvert and block tags created by others. And as things get tagged, search engines will start to search for them the way Google scours the Internet for information and images.

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01 — ECONOMIC TRANSFORMATION | NEW VALUATION OF THE COMMONS | TEN IMPEDIMENTS TO BETTER HEALTH CARE
What? Want body-mind integration? You go to work for IBM, get performance points for walking, working out, meditating, counseling colleagues on fibromyalgia, and work on fantastic software products. No more Coke and candy bar nerds.

So What? Companies experiment with health commons—incentives and tools to build the overall health of the organization, reduce insurance costs, increase productivity, help people retire healthier. Part of the new multiple-bottom-line accounting.

02 — MOBILE RELIGION | PERSONAL RELIGIONS | FIRST-PERSON GEOGRAPHY | URBAN COMPUTING
What? You've just hit town and want to see all things holy. Turns out, town is a surprisingly spiritual place, which wasn't obvious outside of the geoweb. The Wiccan guided tour intrigues.

So What? Location-aware networks are the new frontier in digital homesteading. They provide fertile ground for geo-coded personal expression, including religious views of all stripes. Some will look while others filter.

03 — BIODISASTERS | LOCATION-BASED HEALTH TOOLS | PERSONAL MEDIA
What? Wishing away a pandemic didn't work. Avian flu hit hard, and an unprepared world watched as people died—fast. You're left to surf online memorials and double-check the strap on your breathing mask.

So What? A smaller world means bigger threats from previously regional diseases. Avian flu in the West could wipe out millions in less than a year. Survivors will turn to digital media—online and location-based—to mark unhealthy zones, identify essential resources, and memorialize the dead.

04 — CONSUMER RFID | PERSONAL MEDIA | LOCATION TECHNOLOGIES
What? Why should stores and warehouses have all the RFID fun? By now you're organizing everything in the house with tags, and your kids are coming up with uses you never dreamed of, including graffiti. Now if only you knew what they were saying.

So What? RFID tag prices drop, and people look past privacy concerns to create personal benefit. Billions of customizable tags in the hands of millions of consumers around the world? Bring on the innovation.

05 — CHINESE INTERNET | CHINA: NATIONAL OPTIMISM
What? You get your e-mail in a Beijing Internet café and check out with a $50 tab. D'oh! You forgot the CCP now adds a surcharge to all English content coming down the pipe. Good for the Chinese Web, bad for your wallet.

So What? By the end of the decade, Chinese-speaking Web surfers outnumber their English counterparts by 30%. As one popular cross-over rapper predicts, "Y'all gonna speak Chinese!"

06 — AWARE CONTEXTS | NETWORKING IQ | SOCIABLE COMPUTING | VALUING CONNECTIVITY
What? Think of it as your buddy list projected into space, everywhere you go. You can find your best friends in a heartbeat—and put some change in your pocket at the same time. Smart.

So What? Services, products, advertising are all redesigned for ad hoc groups in situ. Individuals become groups with instant market power, political power, criminal intent. Smart mobs on steroids. New kinds of mall gangs. New ways to tap personal resources for the community good.

07 — NEW LOCALISM | TECHNOLOGIES OF COOPERATION | NETWORKING IQ | DECLINE OF CONSUMER CULTURE?
What? Small contributions add up to real value. You get points for contributing to wikis, podcasting, sharing your photos. Your monthly statement is as good as your bank statement—maybe better.

So What? New mechanisms for tracking small cooperative behaviors create new incentives, new structures for building personal reputation and local communities. Reputation becomes an alternate currency with real exchange value.

08 — ECONOMIC TRANSFORMATION | NEW VALUATION OF THE COMMONS | DECLINE OF CONSUMER CULTURE?
What? Pay $17 for a CD that plays on one device? That was the last straw. You happily voted for a city tax on any media that still comes saddled with restrictive copyright. Now if only they could legislate away bad taste.

So What? New intellectual property agreements, like the Creative Commons license, answer the call of creatives who want to mash, mix, and modify media they buy. Consumers win, artists still profit, beautiful new hybdrid creations emerge. Local tax dollars too.

09 — EXTENDED SELF | PERSONAL-CHEMISTRY MANAGEMENT | MORE URBAN THAN RURAL
What? Pharma now makes any lifestyle possible. Want to be the social butterfly of an all-night party in Mumbai, and not feel like you're surrounded by millions of people? Just pop some pills and call it the morning.

So What? New drugs target lifestyle conditions, let anyone feel like a superhero. An overcrowded world uses advances in personal chemistry to make neighbors bearable.

10 — HOT CITIES | AD HOC INFRASTRUCTURES | NEW DISTRIBUTION NETWORKS
What? You recycle, get 80 mpg, buy organic. Now you can satisfy your techno lust while doing good ... maybe. This is your first computer made largely from recycled parts in Dharavi, that slum-scape outside Mumbai. Does pushing bits feed the poor?

So What? Massive urbanization creates extreme environments, drives extreme entrepreneurialism. A connected world creates markets for everything, even old junk. Recycling doesn't get rid of inequities, though.

06 — INSTANT PARTY, INSTANT VALUE
01 — COMMON HEALTH
07 — REPUTATION STATEMENT
02 — SACRED SIGHT
08 — RIP. MIX. BURN.
03 — VIRTUALLY DEAD
09 — NEW YOU
04 — TAG, YOU'RE IT.
10 — URBAN REDEVELOPMENT
05 — PATRIOT FEE
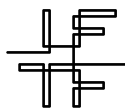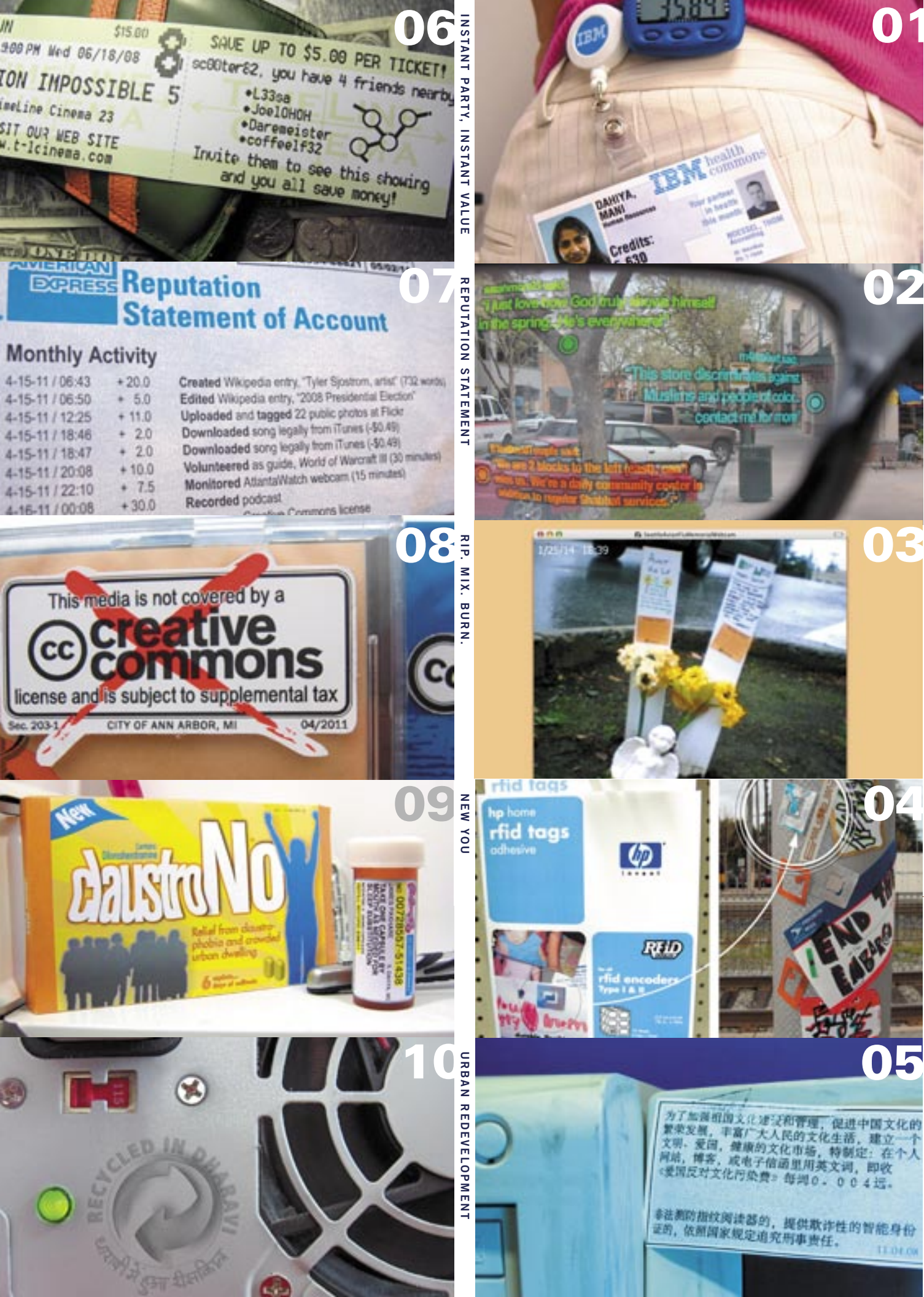
TRENDS 2005

PEOPLE

GRASSROOTS ECONOMICS
From economies of scale to economies of sociability

Grassroots economics is an emerging set of rules for creating value from interaction more than transaction, from the bottom up rather than the top down, and from shared resources rather than private property.

DECLINE OF CONSUMER CULTURE?
People shift their identities from work and home life to personal expression in public spaces

an economic identity shift
- CREATIVES
- social accounting systems
- CONSUMERS
- consumer advocacy groups
- WORKERS
- labor unions

Source: IFTF

growth in smart networkers
Thousands
2005
2015
18–24, 25–34, 35–44, 45–54, 55–64, 65–74
Age
Source: IFTF

SMART NETWORKING
From informed consumers to smart networkers

At the intersection of traditional social networking practices and new connective technologies is an emerging skillset of smart networking—and those with high networking IQs also have distinctive community and marketplace behaviors.

NETWORKING IQ
Six key factors:
- Group participation
- Referral behavior
- Online lifestyle
- Personal mobile computing
- Locative activity
- Computer connectivity

STRONG OPINIONS, STRONGLY HELD
From a global media culture to a splintered fundamentalism

As media channels fragment and subcultures form around strong common interests, strong opinions will be reinforced by strong social networks—with a tendency toward more fundamentalist views of complex issues.

MORE EVANGELISTS
Source: biblesociety.com.au

DEEP PERSONALIZATION
More people reject mass offerings for everything from religion to furnishings—engaging in customization and do-it-yourself projects

URBAN WILDERNESS
From predominantly rural to predominantly urban spaces

This decade, as the urban population surpasses the 50% threshold worldwide, megacities and rapidly growing smaller cities will face unprecedented challenges in managing wealth, health, infrastructure, and social discontent.

KEY THRESHOLD: MORE URBAN THAN RURAL
Megacities will grow both economic value and urban destitution in developing nations

urban & rural populations
Billions
- Rural population
- Urban population
Source: United Nations

Urban populations are growing fastest in:
- Bangladesh
- Congo
- Ethiopia
- India
- Indonesia
- Nigeria
- Pakistan
- Vietnam

SICK HERD
From steadily improving quality of life to increasing signs of distress

With population density increasing dramatically, environmental crises looming, and a more interconnected global society that buffers populations less, there are increasing signs that the human herd is far from healthy.

SIGNS OF BIO-DISTRESS
- Regional decline in longevity
- Increases in infertility
- Obesity
- Increases in chronic diseases

EXTENDED SELF
Technological adaptations to extreme environments drive new human "species:"
- Boundary crossers
- Identity switchers
- Medical modifiers
- Body builders
- Power adapters
- Death defiers

Source: Xybernaut

END OF CYBERSPACE
From physical versus digital to seamlessly physical and digital

Intelligence is becoming increasingly embedded in places and things at the same time as connective technologies link that intelligence in social networks. The result: the end of the distinction between cyberspace and real space.

VISIBLE MINDS
Knowledge work shifts from top–down and technocratic to bottom–up and ethnographic

Source: BLEEX

PLACES

NEW LOCALISM
Local communities become the focus of experiments in sharing economies, sustainable environments, and new civil processes

Interra

THE KEY TO SUSTAINABLE CITIES
Source: Gwendolyn Hallsmith

AWARE CONTEXTS
- semantic processing
- wireless connectivity
- material structure
- smart structure

Source: Pat Rawlins, Scientific American

FIRST-PERSON VIEWS OF GEOGRAPHY
Targeted information, embedded in place, turns each place into a 'personal space.'

Los Angeles, USA
Mexico City, Mexico
New York, USA
Islambul, Turkey
Cairo, Egypt
Karachi, Pakistan
Mumbai, India
Calcutta, India
Delhi, India
Dhaka, Bangladesh
Beijing, China
Shanghai, China
Tokyo, Japan
Osaka-Kobe, Japan
Manila, Philippines
Lagos, Nigeria
unintegrated region: less connected, more desperate
Jakarta, Indonesia
Sao Paulo, Brazil
Rio de Janeiro, Brazil
Buenos Aires, Argentina
11–15 million
> 15 million

HOT CITIES
Megacities will grow both economic value and urban destitution in developing nations

BIODISASTERS
- Re-emerging diseases
- Avian flu virus
- Bioweapons
- Massive pollution
- No quick recovery!

EXTREME CLIMATE VARIABILITY
Greenland as an indicator:
- Warming 10X faster than estimated
- Ice sheet dropping at 10 meters per year

biodisaster: no quick recovery
Victims or Cost
Chemical or Blast
Epidemic
Time
Source: IFTF

GIS HEALTH INFORMATION
More epidemiological information embedded in place—more complex view of health risks

COMPLEX BUILT ENVIRONMENTS
- Smart homes
- Smart automobiles
- Smart highways
- Smart warehouses
- Smart packing crates

MARKETS

AN ERA OF ECONOMIC TRANSFORMATION
a grassroots economy
Technological Transformation
1800s–70s, 1880s–1930s, 2000 and beyond
Source: IFTF

scarcity — abundance
value of transaction
connectivity costs
barrier costs
products reused
value of interaction
Source: IFTF

CHINESE INTERNET
growth in china internet users
Millions of Internet Users
- Chinese
- Chinese speaking users
2003, 2004, 2005
Source: June Wei, University of West Florida

VALUING CONNECTIVITY
Many new business models will define the value of social connectivity

DARK MOBS
- Organized crime
- Political thugs
- Terrorists
- Online pornography

REGIONAL TRADE ALLIANCES
- ASEAN Plus Three
- European Union
- North American Free Trade Association
- South American Economic Community

CHINA: NATIONAL OPTIMISM, PERSONAL HEROISM
But fragmenting visions of the future:
- Chinese Communist Party
- Big business
- Personal business careers
- Smart-mob dissidents

Financial Times, February 2005:
"The U.S. is a dispensable nation."

THE PENTAGON'S NEW MAP
WAR AND PEACE IN THE TWENTY-FIRST CENTURY
THOMAS P.M. BARNETT

Chinese Global Acquisitions:
- Automobiles
- Personal computers
- Pharmaceuticals
- Consumer electronics
- Telecom
- Mining

TEN IMPEDIMENTS TO BETTER HEALTH CARE
- Uninsurance
- Workforce shortages
- Administrative waste
- Limitations of IT
- Non-evidence based practices
- Medical error
- Stigma
- Perverse incentives
- Unhealthy behavior
- Ideology

HEALTHY SHOPPING
People expect more health benefits from more products

health benefits important to purchases of …
- Food
- Beverages
- Beauty aids
- Household cleaning products
- Personal hygiene products
Percent
Source: IFTF

SELF-REFERRING PRODUCTS
Imagine:
- del.icio.us for products
- Buddy lists for appliances

clothester
connecting people through RFID-enabled clothes

Source: IFTF, "Artifact from the Future"

PRACTICES

NEW PRODUCTION METHODS
P2P, open source, open media

NEW DISTRIBUTION NETWORKS
P2P exchange, eBay

NEW PROPERTY REGIMES
Cornucopia of the Commons

NEW VALUATION OF THE COMMONS
Complex ecologies such as coastal waters

	rivalrous	non-rivalrous
excludable	private good	toll good
non-excludable	common-pool resource	public good

Source: IFTF

creative commons

SOCIABLE COMPUTING
Pervasive computing is about sociability, not productivity

Buzznet
flickr

PERSONAL RELIGIONS
Even as megachurches grow, religious sects and beliefs proliferate; watch for more lay creation of religious content

MOBILE RELIGION
- Downloadable prayers
- Online confessions
- Online religious instruction

Pew: 64% of Americans have used Internet for faith-related activities

DISCIPLINES OF READINESS
From solving problems to managing dilemmas:
- Volatility
- Uncertainty
- Complexity
- Ambiguity

AD HOC INFRASTRUCTURES
- Security
- Communications
- Energy
- Waste management

TEMPORARY CITIES
- www.slabcity.org
- Black Rock City/Burning Man
- Refugee zones
- Mega-slums
- Airports

TOOLS

TECHNOLOGIES OF COOPERATION
- Self-organizing mesh networks
- Community computing grids
- Peer production networks
- Social mobile computing
- Group-forming networks
- Social software
- Social accounting
- Knowledge collectives

BioForge

machinima

PERSONAL MEDIA
Digital media are personal, collaborative, multimedia, and interactive:
- Web logs and photo blogs
- Machinima
- Podcasting
- Personal radio

SENSORS FOR SECURITY
- Resource management
- Infrastructure protection
- Ad hoc event security
- Environmental monitoring

LOCATION TECHNOLOGIES
- Location sensing
- Geocoded data
- Geo-info integration
- Location-aware applications
- Location-based services

URBAN COMPUTING
- Urban terrain as gameboard
- Location as a social filter
- Layered narratives of place
- Reclaiming the streets

LOCATION-BASED HEALTH TOOLS
Find out the locations of the latest infected buildings through our SARS Location Based Service via SMS and WAP!

PERSONAL-CHEMISTRY MANAGEMENT
- Food as drug
- Personality drugs
- No-sleep drugs & lifestyles
- Personal chemistry monitors

GOOGLE FOR THINGS
The killer app is for finding things in real space and real time

CONSUMER RFID
Users will:
- Create and program tags
- Tag everything—photos, kid's art, antiques
- Invent tag-based services
- Block tags

Source: IFTF, "Artifact from the Future"

INTELLIGENT SERVICING
Device as service person:
- Internet devices
- Cell phones
- iPods

can you see me now?

PERVASIVE GAMING
Merger of art, gaming, and social networking—across physical and digital spaces