

GFF 2011

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THE GLOBAL FUTURES FORECAST:

THE TOP TECHNOLOGY AND INNOVATION TRENDS FOR 2011

Web 3.0., personalized medicine, robotics, hacking the planet. Each year the Institute for Global Futures maps the coming year's top global trends to have a look at what's ahead. The focus of this year's Global Futures Forecast is technology and innovation—the key strategic driver of change that will impact global business, consumers, markets and society.

Velocity, accelerated change and radical transformations, even revolutions are upon us. A better future is what this year could deliver if we apply our resources, intellect and courage to lead and invest smartly. Innovation led by thought leaders in business and society and especially entrepreneurs will make a positive impact on the future in 2011.

Tech and innovation play a dominant role in the Global Futures Forecast as consistent with past years. Most of the Game Changers and disruptions will be driven by tech and innovation. Many of the solutions to our challenges as well can be addressed by tech and innovation.

There are positive signs emerging in the global economy. Innovation and invention, technology and tools may point to a New Future. New innovations especially in business and the private sector are turning positive and hold the promise for a better tomorrow. A new era is emerging, a New Future based on fresh opportunities this year driven by innovation, collaboration and a positive vision of tomorrow may well make a difference. Let's invest this year in the innovations that will transform the future.



1. Innovation as Competitive Advantage

Innovation is the only authentic competitive advantage. Innovation is responsible for over one third of GDP in the US. Innovation is the key driving force of new jobs, new markets, competition, new wealth and value creation. Yet too few organizations are investing in innovation. We cannot have growth, stability or jobs without innovation. The innovation explosion is waiting to happen. This will require courage and long-range investments into where the future consumer, markets and societies will emerge. Invest in innovation and thrive in 2011.

2. Top 5 Game Changing Technologies

The Top Game Changing Technologies that will drive opportunity, commerce and innovation this year are: IT & Web (information design), Nanoengineering (design of matter), Biotechnology (design of life), Neuroscience (design of cognition) and Quantum Mechanics (design of space/time). Millions of new jobs, companies and products will emerge from investments in these five technologies. If you want to create the future invest in the Game Changers that will shape tomorrows markets.



3. The Sustainable Planet

A new global vision that we are one sustainable connected planet is needed to avert crisis and better manage global risk. This global vision will be shaped by globalization, climate change, trade and the financial crisis. We need a new cooperative global sustainability system to manage these global issues such as: security, food, climate, communications, health, economics and energy.

4. WebAware 3.0

The future of the web is coming; a smarter more intuitive web that can interact, adapt, anticipate and empower you more. Web 3.0 is about Web Personalization, the web's-aware-of-you. Key trends that will drive Web 3.0 are: Semantic processing, context awareness, location awareness, sentiment analysis, predictive analysis, mobility, cloud networks and social networking.

5. The Digital Tsunami

The Digital Tsunami is the overwhelming onslaught of digital information: video, voice and text that's emerging we are not ready for. The over one million exobytes of information that humanity is generating from creativity, health care, logistics, media, entertainment, security, industry, the web itself and countless other data creation efforts that we are not prepared to deal with. Think a million server farms in space. Enterprise must prepare now for this trend.

6. Video Web Convergence

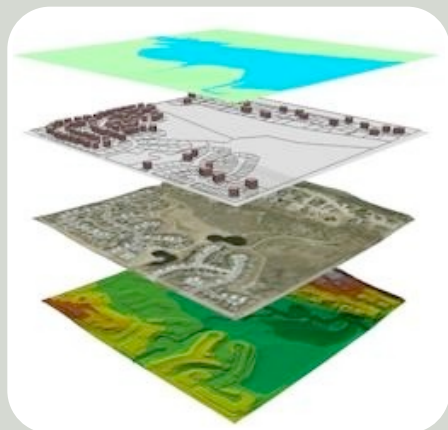
Rich media will be pervasive this year as every part of the web becomes video enabled. And as the web, mobile and TV platforms converge, new and exciting markets will emerge for media producers and directors to make a living finding audiences that can support their creativity. Video web shows, delivered to your mobile device, iPad, phone or TV will create new markets for innovators.

7. ClickStreamers

Are you ready for the next generation of digital consumers? Consumers who live on the mobile web: they game, buy, talk, work and create online. ClickStreamers will be devouring iPads, mobile phones, computers, videogames they Tweet, check Facebook, Search Google, Bing and Blog on their mobile devices. Think about five billion plus in 2011. It is an avalanche of digital consumerism and a new metric for understanding consumers--measure the Clickstream analytics and user trends. The ClickStreamers will be essential to the success of your organization.

8. EcoEverything

Customers have spoken: Be green, don't pollute, help the environment, heal the planet, protect the climate and clean the air and water. Do more is the mantra this year. Business needs to see this as a Mega Opportunity and recognize this is a Mega-Values Shift in the consumer. This will be the trend that touches every product, company, government and service, from clothes to tech, consumers will be demanding EcoEverything and brands better deliver or else. Bake eco into every strategy, product and service and win this year.



9. Always-On Mobile Web

Context awareness, ubiquity, always on awareness of the mobile web will bring five billion folks closer to each other and your message, product or service. The emergence of geodata, the location awareness of things, people, experiences that can be searched and tagged by the web and then communicated will change every part of business and society. What is your strategy in this new always on game? Learn, adapt, go mobile and thrive this year. Can you say Mobile Clouds? No room for legacy holdouts.

10. The Facebook Playbook

Ready for the End of Marketing? What are brands to do? Don't beat them--join them. The Facebook Effect is hacking the marketplace and revolutionizing business by validating social media as a vital business strategy--no longer just for consumers. Customers are the chief influencers of customers. Not companies. The social network IS the marketplace. This is the new playbook. Facebook will have over 800 to one billion members in 2011. How will you and your business leverage this? Facebook is ripping a Black Hole the size of the universe in the traditional marketing universe and redefining who and where customers are. What is the next Groupon? What can your business learn from the new playbook?



11. My Identity My Life

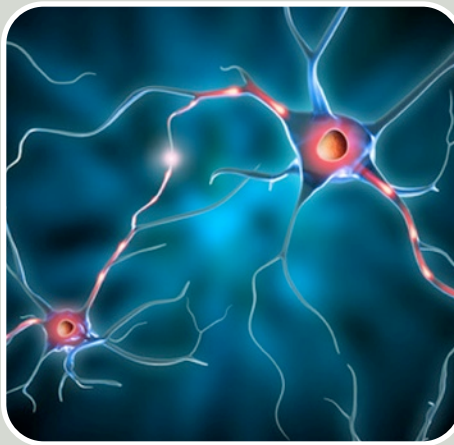
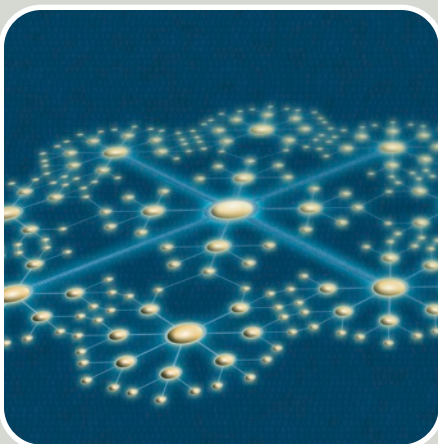
Privacy is under attack. Who you are, what you like, where you live and shop are all up for grabs. Identify crime will be up again in 2011 and little is being done to stop it. Your identity is a commodity that can be sold and stolen. This is a global Mega Trend of huge proportions. If you are not protecting your privacy others can use it or abuse it. The irony is that business can be the white knight here and protect consumer's identities. Protect your customers or lose them.

12. Cities That Think

The complexity of managing cities as living systems may well define the future. Millions are moving to cities. Cities are evolving into systems of living and connected networks that need advanced IT to survive. Cities that think, adapt and evolve are coming. Cities like organisms will learn to optimize their resources, food, energy, health, communications and climate. Cities will interact and transact with cities —autonomous transaction platforms for profit and survival.

13. Connected Products

Over 300 billion embedded computer chips sharing video, transactions, GPS locations, audio, data in clothes, habitats, autos, electronics, food packages and humans will redefine the future this year. What happens when these products are all connected start to think and communicate with each other and yes, us? How can your business leverage this trend to build value for your customers? Think health, security, media, entertainment and trade.



14. Climate Geo-Hacking

OK next chapter in Big Science is we try to use science to fix the environment. We will clean, protect, engineer and hack the climate to better protect our future environment. Can we restore oceans, engineer climate and fix the ozone layer? Some say it is possible. This year we will start the experiment.

15. Cloud Networks

This is the most practical revolution in 100 years. Cloud based information broadcast platforms are coming FAST. The Cloud strategy is cost-effective, business agile, customer friendly and smart. Google, Microsoft, Apple, Amazon are Cloud companies--are you? Clouds are complete services and products that can be delivered from the Internet —get ready for a more secure, more stable and more cost-effective new business model. Think whatever you are buying or selling can it be distributed from a network cloud? What innovation could you deliver? Voting, medicine, media or entertainment, you name it. Clouds are the future.

16. Personalized Medicine

The future of health and medicine is emerging. The top innovation trends that will shape personalized medicine are health IT 2.0, consumer genomics, regenerative medicine, synthetic biology and health enhancement. This year's Outstanding Innovative Science Award goes to Craig Venter for creating the first artificial cell. This is from the scientist who mapped the Human Genome. This massive breakthrough in the new field of synthetic biology could lead to new organs, new cells and new lives for those sick or even dying.

17. Social Shopping

My friends on Facebook and Twitter are more important than anyone in influencing my purchasing, consumers are telling us. Are you listening? What is your social shopping strategy? We are entering an era where “who” recommends a brand or product is more impactful than the actual brand advertising campaign. Social shopping, where the customer recommends to another customer your brand or product will completely revolutionize business this year. Customers influencing, talking, and selling to customers will disrupt the business that is not prepared for this revolution. Perception is reality in the social network marketplace.

18. New Brain Science

Innovations in brain science may influence every aspect of life from work to love to creativity to learning. How can we leverage brain science for better learning, health and education? With millions at risk and suffering from brain diseases such as Alzheimers we need new brain sciences to move quickly to end suffering. This is the greatest health challenge we face today and will face in the future. Brain science may well transform our lives if we invest fast to create the breakthroughs we need. Advancements this year could further this global goal.



19. Robots R Us

In the movie Surrogates humans replace themselves with robots that work for their human hosts. This is a scenario predictive of our future. Over 70% of all stock transactions worldwide are conducted not by humans but Black Boxes, robotic AI artificial intelligence. There will be more robot aircraft flying into the skies, robotic satellites watching the weather, robots operating on patients, trading stocks and robots entering the battlefield. This year will see more autonomous robotics emerge. Robots who are smarter than humans are coming soon.

20. Everyone's a Producer

Media creation has been an expensive business in the past. No longer. This year will see an explosion of innovations, from cheap digital video camcorders to Internet TV to 3D movies to virtual worlds. Also, the Web can broadcast and deliver to the computer, phone or TV your movie or web show. Apple will pay out over \$1 billion this year to iPad and iPhone media producers. Look for videogaming to take off thanks to Apple's iPad. Now everyone can be a producer.



ABOUT THE GLOBAL FUTURES FORECAST

Since 1990 The Global Futures Forecast has mapped the horizon of what's next, what's coming for our clients worldwide. From multinationals to governments to consumers and leaders to entrepreneurs and innovators, the Global Futures Forecast has looked into the key trends that will shape the coming year. The Global Futures Forecast is an end product of qualitative and quantitative research that leverages the global intelligence network managed by the Institute for Global Futures.



ABOUT THE INSTITUTE FOR GLOBAL FUTURES

The Institute for Global Futures is a leading Think Tank that advises organizations and governments on strategy, trends and forecasts that are shaping our world. We assess global risk, disruption and opportunity. The renown global futurist and author of the Extreme Future, Dr. James Canton is the founder and CEO. IGF tracks trends impacting consumers, technology, climate, energy, security, medicine, science, education, food, population and media communications. A central focus is innovation and leading edge technologies affecting the planet.

See www.GlobalFuturist.com for more info.

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