

Futurist Gerd Leonhard's speaking topics: the future of humanity, business, media and technology

Welcome to my new topics page! Please note that all of these topics can also be delivered in [German language](#). I am currently offering 3 variations: a) a customized presentation with a multimedia slideshow b) a talk-only version, i.e. without slides or images c) a conversation or interview-style session with a good moderator, host or fellow futurist. I usually speak between 18 minutes and 90 minutes (ideal length is 45 minutes), depending on the context, and 90% of my engagements are opening keynote slots. I customize every presentation for each client and engagement. Beyond my [speaking activities](#), I also offer other services via my company, The Futures Agency, such as [seminars](#), [workshops](#) and [CEO trainings](#).

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Human Futures

1) Human-machine relationships: what the future may bring

Humans and ultra-smart technology i.e. 'intelligent machines' are increasingly interconnecting and overlapping. The [Internet of Things](#) aka the internet of everything is here, and artificial intelligence and the singularity are becoming global buzzwords. [AI](#) is certain to play a role everywhere, and robots are dropping in price dramatically while gaining quickly in functionality and skills. Exponential technological progress is evident everywhere – but how will we – as *linear* beings – cope with this increasing empowerment of software and machines, the tremendous gain in the flow of real-time information, and the far-reaching implications that these developments will have? What will happen to [our ethics](#) in a world of ultra-smart intelligent agents, artificial intelligence and the coming 'trans-humanism'?

2) Man & machine: HellVen challenges

Exponentiell technologies are impacting our lives at an increasingly faster pace. Intelligent digital agents, smart software, big data and artificial intelligence (AI), cognitive computing, robotics and neuromorphic chips are likely to become as normal as smartphones. Where is this going? What will mean to be human in the near future? What will happen to [work and jobs](#), to mysteries and serendipity, to our social contracts and to how we do business? The immediate future is certain to bring a rapid convergence of man and machine, in every aspect of our society. We can expect a lot more [HellVen](#) (Hell+Heaven) challenges and opportunities since this could be a kind of nirvana for us, or it could just as easily spell disaster – depending on how we prepare and act, today. Technology does not have ethics and machines are immoral by design – yet humanity without ethics is an oxymoron. On the one hand, we are looking at the distinct possibility of solving global problems such as such as climate change, energy, water and food shortages, or poverty, based on vastly exponential scientific progress; and at the same time we

are looking at the potential threat of **humans becoming machines** as one of many unintended consequences. Who will be in charge of whether this becomes heaven or hell, and what do we need to do today to address this challenge, today?

Business

1) The digital transformation of business and society

Everything that can be digitised and automated, will be. Software is eating the world (Andreessen). In God we trust; everyone else bring data (Bezos) – memes like these are seemingly everywhere.

Digitization, automation, optimization, disintermediation and robotization is now happening in all industries, not just in media (where it all got started). **Digital transformation** – going from an analog or semi-digital world to a digitally-native world – is certain to be an essential challenge-opportunity in the next 5 years. How can people and companies become better at understanding, and faster at implementing, the transformations that are required? How will a company or an organization be safe and prosper in a world that is quickly becoming inter-connected and interdependent? What skills, traits and trainings will we need?

2) The next 5 years in technology and innovation

We are heading into an era of dramatic disruption and opportunity: exponential technological progress is fuelling a multitude of key trends such as The Internet of Things (IoT), artificial intelligence, the total mobilization of society and commerce, **big data-driven business intelligence and prediction**, the reimagination of privacy and security, bionics, robotics and new human-machine interfaces, the complete reinvention of advertising, a global convergence of telecom and media, and the rise of cloud-everything (i.e. content, money, education, health, transportation etc). At the same, we are just about to redefine the meaning of 'capitalism' which will, in the near future, need to be based on interdependence and **ecosystem-thinking** rather than on control, independence and nicely walled gardens. In this talk, I show the key trends, the likely minefields and the key opportunities, dishing up a mixture of shock and awesomeness to stimulate some serious thinking.

3) Disruptive technological change and the future of the professions

Technological change is already **brutally exponential**, but now we are at '4' and the next step is '8', not 5. Traditional innovation tactics will clearly not be sufficient in this new environment – and neither will most traditional metrics of growth and success. Within the next few years, the Internet will go dramatically mobile, social and video, encompassing everyone and *everything*, becoming like water, air or electricity. In this context, it will be crucial to embrace yet to humanise and transcend technology and to hone in on what makes us truly human rather than a 'better machine' such as pattern recognition, creativity, problem-solving, complex understanding, improvisation, emotions and plasticity. We must therefore let go of the 'machine-work' – and most its traditional metrics, KPIs and success measurements – to truly reinvent what our jobs, work and 'professional services' can mean in the future.

4) Understanding, embracing and thriving with exponential change

Riffing off my friend's Yuri van Geest's and Salim Ismail's 2015 book '**Exponential Organisations**', this session outlines the challenges and opportunities behind the '*gradually then suddenly*' uptake and pace of technological change in science, society and business, and shows ways and examples of dealing with exponential disruptions. Humans will remain linear, for the foreseeable future, but technology has now reached the pivot point – what will this mean for us, in the next 10-20 years?

5) Flipping the VUCA

Volatility, uncertainty, complexity and ambiguity seem to have become the 'new normal' in our world, in

society, business and in politics, putting relentless pressure on many organisations, leaders and professionals. What if we flipped the VUCA, and applied these 4 different principles in response: velocity, unorthodoxy, collaboration and awesomeness (yes...sorry for the unabashed americanism). How would we do this, and what would we need to do to actually implement this approach? I have some ideas to share...

6) Crossing the valley of death: responding to digital disruption

Technology has initially impacted primarily the music, media, publishing and entertainment industries, in many cases dramatically shrinking the margins and reducing the costs to the consumer. This is certain to happen to most other industries, as well, presenting the challenge of steep initial declines in traditional revenue streams followed by an often painful rebuilding and transformation process that must look towards a new, post-disruption world of over 5 Billion connected 'consumers'. How can we build bridges over the [valleys of death](#), and how can we know for sure what lies at the other end?

7) Marketing and branding futures: scenarios & wild-cards

Everything is gravitating towards mobile interfaces and devices: advertising, publishing, television, commerce, banking, health and of course communications and marketing. Almost all major innovations now have strong mobile components, witness self-driving cars, face-recognition applications, NFC/RFID retail services etc. The exponential growth of mobile technologies has already surpassed what we thought of as science-fiction just a few years ago – and that goes for the positive as well as for the negative aspects such as the loss of anonymity and privacy. Clearly, though, mobile technology will not just be a panacea for commerce and marketing; rather, some careful balancing is crucial, as well, and new social contracts will need to emerge. What does [a marketer need to know](#) about the next 5 years, today?

8) Digital transformation in telecommunications, mobile and ICT: opportunities in a new ecosystem.

The telecommunications, content, entertainment, publishing, e-commerce and social media sectors are [finally converging](#) ('TeleMedia') as mobile devices are becoming the preferred tools of connectivity and interaction for GenY and Z. All digital content – music, books, movies, banking/money, education, health / medical etc – is rapidly moving into the cloud, making very reliable, high-speed yet low cost connectivity a must-have at all times, anywhere. Yet, the business of merely connecting to the cloud is not likely to remain a stand-alone industry in the very near future because converged, digitally-native business models are proving to be increasingly disruptive. What is the future of a mobile operator, and what will this mean for the adjacent businesses in the ICT sectors, globally?

9) Disruption, innovation, transformation and growth: the next 7 years in technology, marketing, business.

The 'digital default' is near: everything and everyone is getting connected, everywhere, anytime, at increasingly lower cost. The mobile phone has become our external brain already, and devices are now truly 'the extension of man'. The coming 'networked society' will change the very definition of ownership and property (look at the media business), control and innovation – very soon, ['business as usual' will be a thing of the past](#), and many business opportunities will become transient rather than permanent or even sustainable. How can you get ready for this kind of future, personally and professionally? Which unintended consequences do we need to consider?

Media

1) Future Media Scenarios: the next 5 years.

Which trends are influencing media companies around the globe, encompassing technological, social,

demographic, political and economic issues? 'Coming backwards from the future' Gerd will present both the opportunities and the challenges that lie ahead for [media companies and professionals](#), with the goal of helping the participants discover, invent and design their unique, preferred futures. Topics include:

- The digital default: 5 Billion mobile content users (fka consumers) by 2018.
- Internet, SoLoMo style: from paying with attention – aka getting content for free – to paying cash for added values and relevance (and how the much lower digital 'unit price' can still add up)
- The future definition of 'distribution': ownership vs access
- The total convergence of broadcasting and 'broad-banding': TV & Radio
- The future of advertising – the end of disruption: a \$1 Trillion shift.
- Exponential technological innovation: augmented reality, gesture and voice control, artificial intelligence (AI), automated language translation, screenification
- Why 'Big Data' is the new currency of the digital age, and what it means for media companies
- Newly emerging digital business models for publishing and print media (innovation), and how to adapt them (transient advantages)
- Examples of dramatic digital media innovation that is likely to be successful in the future: disruption is at the centre of innovation
- How convergence is finally a real and present opportunity: telecom and media, devices and services, products and experiences
- Demographics and global trends that will impact media (older consumers, shift of growth to the South and the East, risk-averse cultures)
- Consumer habit and expectation changes (trust expectations, real-time anywhere anything, radical transparency, sustainability, customer delight etc)

2) The future of 'free' and the end of Faustian bargains

In the past, many of us have enjoyed the seemingly unrestrained and global flow of information and content on the Internet. Feels-like-free news, music, videos, books, magazines and TV shows have become a global standard, various most unfruitful attempts at [paywalls](#) notwithstanding. By 2020, almost 5 Billion connected consumers will be feasting on content via mobile devices, tablets and internet-connected TVs, and everything will be available in any language (with automated real-time translation) and on any platform, and sooner rather than later even to very-low-income demographics. Is there a good balance between [abundance and scarcity](#), and how will we define value in the future when even physical goods can be easily replicated anywhere with 3D printers? If we don't pay, will *we* become the content, the package, the product that is being sold?

Society

1) The future of privacy

Most of us are habitually sharing personal data on the Internet, and exponentially so now that the 'Social-Local-Mobile-Video-Cloud' is available almost everywhere. Our data is inevitably shared while we search the web or use mobile apps, share updates, rate a vendor or restaurant, use our mobile devices to navigate, buy something with a credit card, use a customer incentive card or just post a short comment on social media platforms. Will total surveillance – and related concepts such as the 'quantified employee' that is constantly monitored with intelligent software tools and via wearable computers and cameras – become our new reality, or will we need some sort of 'digital non-proliferation agreement' i.e. some global digital rights bill to stem this tide of happy/creepiness? Is [privacy](#) really dead, and should it be? Would a

world without anonymity and personal secrets really be desirable?

2) Rebooting capitalism and the future of consumption: will 'sustainable' really become the 'new profitable'?

Over the past 2 centuries, the industrial and even the early information-age paradigm of 'profit and growth at pretty much any cost' has remained at the very core of our leading capitalist economies – and seemingly no viable alternative to capitalism, itself, has emerged. Growth is what everyone desires and what every nation seems to strive for; and GDP / GNP curves is how we traditionally measure growth – anything but an upward trend is immediately punished on stock-markets and in country-credit-worthiness ratings. What will happen if we just continue with 'business as usual'? Will technologists, by themselves, really find a way to undo all the damages we have already done?

3) Digital obesity, digital detox, and the coming 'joy of missing out': will 'offline' become the new luxury?

Increasingly, people are complaining about 'the tyranny of connectivity, about getting bloated with information and being overloaded with data, media, updates and notifications. There now is so much of everything, and it all 'tastes' so good, and the price is right (well, mostly...zero), so we just keep eating more of it. Are we risking to become 'digitally fat', data-bloated and over-saturated with too many good digital snacks that are being pushed at us – and where will this take us when the flow of 'big data' actually accelerates 100x in speed, variety and volume? So does technology still mean pure empowerment for consumers, mostly, or is it really becoming a tool for a new kind of enslavement – or both? And if we had to consider this question, could we actually live 'off the grid' and still function in a networked society? How do we strike the balance?

4) The future of the internet: big data, big brother, big tech, big telco and big gov...?

Technology is progressing exponentially, and what sounded like science-fiction only 3 years ago is now becoming a reality: Google Glass, self-driving cars, predictive search and anticipatory services, ultra-smart electronic agents and voice / gesture controlled devices, digital classrooms and affordable telepresence. Connectivity is becoming like water and ultra-smart mobile devices are the new cigarettes: low-cost, omni-present, hyper-social and ultra-addictive. We are looking at the most amazing commercial opportunities as well as some quite vexing ethical challenges in the next 7 years and beyond. Gerd will share his insights and key foresights on the [future of the Internet](#), telecommunications and telemedia, data, privacy and technology, depicting the most crucial scenarios that are likely to await us in the immediate future, globally.

The future of work

1) Key trends impacting the future of work and jobs

Machines and smart software will likely automate-away between 40-60% of all work that is mostly repetitive or algorithm-based, in the next 20 years. Abundance will result from machines doing most of the work for us, (hopefully) freeing us up to no longer define ourselves by what we do for a living. We will eventually work much less, or redefine work as what we would ideally do even if we weren't getting paid. Basic income guarantees (BIG) may be one of the inevitable results. What will this mean for the future of the economic system, for education, [training and learning](#)? How can governments and businesses understand and get ready for this?

2) The automation of everything, the rise of smart machines, the IoT and AI: impact on jobs and employment.

Automation is everywhere, already: from electronic bridge-tolls to connected cars with dash-cams and self-parking capabilities, to digital wallets and mobile payment platforms, to networked medical devices

and quantified-self applications, to sensor networks for traffic control and robotic nurses for the elderly – and this is only the beginning. The next 5 years will bring rapid advancements in all areas of AI, robotics and the Internet of Things, and almost all of them will bring more automation to every sector of our society (and I am sure this will not always be a good thing, either). In the near future we may need to focus on pursuing human-only jobs, i.e. jobs that only humans can undertake – jobs focusing on creativity, design, pattern recognition, negotiation and other ‘soft skills’, on right-brain capabilities or on emotional context. However, unemployment is very likely to soar, regardless, as ever smarter and cheaper machines increasingly automate simple work processes. So will we see the rise of a minimum guaranteed income (i.e. get paid without working) in some developed countries such as Switzerland? The very [concept of work and ‘earning a living’](#) will need to be re-imagined, and soon.

Education, learning, training and skills

1) Technology and the Future of Education, Learning and Knowledge.

Education is next on the list of to-be-disrupted sectors of our society, following music, media, film, TV, print and journalism. Incumbent educational institutions are witnessing a tidal wave of disruptive innovations driven by technology as well as by globalisation. Will true knowledge – and beyond that, ‘wisdom’ – still require us to look beyond the mere flow of information, and if so what will the future of Universities and other educational institutions be, within 5-7 years? When digital education is ‘free’ and simple to find and access, will universities have to adapt and become part of a larger digital education ecosystem rather than actually owning or running it? What can we learn from the BRIC countries, and will they lead the way into the [future of education](#)?

2) Re-defining the meaning of knowledge and learning in a networked society.

Digital technologies and the so-called social-local-mobile (SoLoMo) society are quickly and radically changing the definition of learning, training and education. Disruption is certain but new opportunities abound for those that can develop prescient foresights and act on them. Things are changing faster than ever before. The next three to five years are certain to bring rapid and global change to pretty much all segments of society, business and culture. Yet, it is not really about technology, in the end – it is how people’s habits and social behaviours are changing because of it, and what [challenges and opportunities lie ahead](#) as a result.

3) Redefining leadership for a digital world.

In the near future, more and more products will become services, and many services will then become experiences, across most sectors of our society, as we are currently already seeing in television, books and transportation. As Mark Andreessen likes to put it: *‘software is eating the world’*. Add the rise of ‘digital darwinism’ i.e. a much increased efficiency that almost always results from this [total digitisation of society](#), and you will truly have a VUCA (volatility, uncertainty, complexity, ambiguity) world. It will be all about radical openness and liquid, irreverent creativity, awakening imagination and a kind of human-only ingenuity in your team members, about generating actionable foresights and quickly recognising patterns among an ever increasing noise, and about focusing on what humans do best – because all the real economic and cultural value will be created here.

4) Future skills

In the future, most repetitive or machine-like tasks and jobs will be largely offloaded to ultra-smart software and intelligent machines. We will need to steer away from the jobs-that-robots-can-and-will-do and re-focus on those tasks that [only us humans can do](#). Skills or character traits such as creativity, pattern recognition, imagination and storytelling will once again become increasingly important as

machines are not yet suited to tackle them (at least in the foreseeable future). How will you get ready for this?

Philosophy

1) Offline is the new luxury.

Today, there is almost no distinction between being 'online' and 'offline' anymore; at least not in a technical sense. Access to the Internet is becoming like water or electricity; always-on and always-there and – at least in most developed countries – no longer requiring any special mention. As mobile broadband proliferates around the globe and the BRICs leap into connectivity, we will be looking at over 5 Billion highly-connected users in 2020. What used to be a luxury may in fact become both simply 'normal' as well as a new kind of burden or even a liability. Being offline, disconnecting and being in the moment is certain to [become a new kind of luxury](#).

2) Every algorithm will need a humarithm

Powerful algorithms, big data and intelligent machines are quickly becoming prevalent in almost all sectors of society and business. Hyper-efficiency is imminent in many industries, ushering in a new kind of global abundance of products and services. At the same time, we are discovering that human happiness cannot be explained (or generated) with algorithms. My neologism 'humarithm' seeks to explain the increasing need for rules, values and ethics that will remain solidly 'human-only' in a world where smart (and soon, 'thinking') machines are become the new normal. How can you discover and formulate your own humarithms, embed them in your life and your business, and ensure their survival in society?

3) The Digital Ethics Challenge (from 'if' to 'why')

Technology does not have ethics, and robots don't have morals. Yet, our societies are build on mutually agreed upon values, social contracts and principles. The more technology we deploy around us, the more this dichotomy will move center stage. Technology has already transcended the question of 'if' something can be done (or even how and when) – very soon, the primary question will be 'why' it should be done, and by whom, where and when, under what circumstances. Should we really allow humans to become technology (to whatever extend), and should we allow machines to make 'moral' decisions? Should we ingrain ethical principles in machines, and if so, what should they be? What will be the basic cornerstones of [digital ethics](#) ?

4) The new interdependence default (from ego to eco)

In a global digital world, very few countries, companies, people or things will remain completely independent – we are on the road from independent to interdependent, and from [ego-systems](#) to [ecosystems](#). This will have far-reaching implications: ecosystems of technology, business, countries or politics are being forced to become networked and hyper-collaborate rather than hyper-compete. It is now abundantly clear that global issues such as energy, food or terrorism will not be solved by the actions of independent players. How can you remain in charge of your destiny when much of your success seems to depend on what others do, or their willing collaboration? How can you become (or remain) indispensable in this new ecosystem? What does this trend mean for regulations, laws and social contracts? How will this play out with 5 Billion connected Internet users in 2020?

Futurism

1) Discovering the Future

Clearly, in a world that becomes faster and more intertwined every day, we will need to become much better at [developing foresights](#), and more adept at thinking beyond the obvious. If indeed logic proves but intuition discovers – as Henri Poincare once said – how will we implement this concept in our work and in our lives? How can we re-discover our imagination, and make more room for playful discovery?

2) How to be(come) a futurist

In the past 15 years, and with over 1500 speaking engagements under my belt, I have found a few unique ways of observing the future and generating the key foresights. This session shows how I try to do this, what tools I use, how I look to maintain a good present/future balance, and how to deal with information overload.

Gerd's [Endorsements](#) (download all LinkedIn Endorsements: [Endorsements March 2015 LinkedIn](#))

Download Gerd's entire LinkedIn profile: [LinkedIn GerdLeonhard March 2015 all](#)

Gerd's [Keynotes on video](#)

Headline-only topics and other ideas for talks

1. The coming data-wars: if data is indeed the new oil, should we license the mining and refining of data as well as regulate the digital gas stations
2. Why big data will need big people, big ethics – and a new social contract
3. The future of cloud computing between convenience, control, trust – and the government
4. Artificial intelligence – the good, the bad and the ugly
5. How computing moves inside of us: the coming interface revolutions, and how they will challenge the definition of 'human'
6. The future of the creative class, and the middle class, in a digital world: avoiding a digital winner-take-all economy
7. The rise of digital totalitarianism and why we need to construct digitally-native ethics, standards and regulations
8. Digital freedom and human rights in an always-on and globally networked society
9. Mass surveillance scenarios: why it matters, and what to do about it
10. Why trans-humanism may be like nuclear power, and why I am concerned about the concept of [singularity](#)
11. The joys and perils of [paying with personal data instead of money](#): is this deal becoming a truly Faustian bargain?
12. The rise of new digital business models that will not just rely on data-capturing, sentiment-spying and user-tracking
13. The redefinition of privacy in a digital world: is this a 'red pill or blue pill' issue? Privacy in the age of the publicity default.
14. Digital obesity and data / connectivity / media over-consumption: a clear and present danger, but how to deal with it?
15. The rise of LESS and SLOW (asset lightness)
16. Nature's crucial role in a totally digital world (biosphere thinking, [ecosystems](#) etc)
17. The rise of what I call *fake-worlding* and the danger of identity-loss in a hyper-connected world
18. The quantified self – or the qualified slave?
19. The coming automation of 2 Billion jobs, and the [coming shift towards human-only jobs](#)
20. New business models for humanity: beyond mere GDP: re-defining capitalism; leaving a burning platform

21. The future of personal branding in the age of hyper-transparency and total exposure: how to remain...human
22. The advent of digital darwinism: eventual destruction or invisible-hand-like market evolution?
23. A survival guide to transition trauma while we go from the information society to the experience society
24. From egosystem to ecosystem: the global shift from independence to interdependence
25. Climate change, global warming and the need for dramatic new growth metrics
26. Sustainability: unmasking the the eternal promises of technology, and finding a new path
27. Green futures: how to tackle the truly wicked problems by going beyond the obvious
28. How to truly understand 'the people formally known as consumers' (generation RE::::)
29. How to stop focusing on hyper-competition and start hyper-collaborating (in person, and in business)
30. The power of leap-thinking and going beyond the obvious (how to infuse futurism into your company)
31. How to discover one's 'old logics' and flawed assumptions, and then discard them
32. Social media futures: beyond hedonism and the noise of self-marketing
33. Advertising's evolution from mousetraps to magnets: is this the end of lying?
34. Digital marketing beyond abuse, noise and interruption: dead on arrival?
35. The future of reading and languages in a machine-reading and translating world
36. The future of education and learning when almost all all knowledge and information becomes on-demand
37. The coming global brain, and how it may solve our biggest problems – or become our biggest problem



I have been influenced by many great people; including all the great minds whose books are in my Kindle queue (you can review [my public Kindle highlights](#) if you wish) such as Jeremy Rifkin, Jaron Lanier, Yoshai Benkler, Larry Lessig, Cory Doctorow, Paulo Coelho, John Elkington, David Korten, Seth Godin, Stewart Brand, Richard Branson, Alvin Toffler, Ray Kurzweil and Don Tapscott. Thanks to all of you!



Page 1

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Technological change is already brutally exponential, but now we are at '4' and the next step is '8', not 5. Traditional innovation tactics will clearly not be sufficient in this new environment – and neither will most traditional metrics of growth and success. Within the next few years, the Internet will go dramatically mobile, social and video, encompassing everyone and everything, becoming like water, air or electricity. In this context, it will be crucial to embrace yet to humanise and transcend technology and to hone in on what makes us truly human rather than a 'better machine' such as pattern recognition, creativity, problem-solving, complex understanding, improvisation, emotions and plasticity. We must therefore let go of the 'machine-work' – and most its traditional metrics, KPIs and success measurements – to truly reinvent what our jobs, work and 'professional services' can mean in the future.

4) Understanding, embracing and thriving with exponential change

Riffing off my friend's Yuri van Geest's and Salim Ismail's 2015 book 'Exponential Organisations', this session outlines the challenges and opportunities behind the 'gradually then suddenly' uptake and pace of technological change in science, society and business, and shows ways and examples of dealing with exponential disruptions. Humans will remain linear, for the foreseeable future, but technology has now reached the pivot point – what will this mean for us, in the next 10-20 years?

5) Flipping the VUCA

Volatility, uncertainty, complexity and ambiguity seem to have become the 'new normal' in our world, in society, business and in politics, putting relentless pressure on many organisations, leaders and professionals. What if we flipped the VUCA, and applied these 4 different principles in response: velocity, unorthodoxy, collaboration and awesomeness (yes...sorry for the unabashed americanism). How would we do this, and what would we need to do to actually implement this approach? I have some ideas to share...

6) Crossing the valley of death: responding to digital disruption

Technology has initially impacted primarily the music, media, publishing and entertainment industries, in many cases dramatically shrinking the margins and reducing the costs to the consumer. This is certain to happen to most other industries, as well, presenting the challenge of steep initial declines in traditional revenue streams followed by an often painful rebuilding and transformation process that must look towards a new, post-disruption world of over 5 Billion connected 'consumers'. How can we build bridges over the [valleys of death](#), and how can we know for sure what lies at the other end?

7) Marketing and branding futures: scenarios & wild-cards

Everything is gravitating towards mobile interfaces and devices: advertising, publishing, television, commerce, banking, health and of course communications and marketing. Almost all major innovations now have strong mobile components, witness self-driving cars, face-recognition applications, NFC/RFID retail services etc. The exponential growth of mobile technologies has already surpassed what we thought of as science-fiction just a few years ago – and that goes for the positive as well as for the negative aspects such as the loss of anonymity and privacy. Clearly, though, mobile technology will not just be a panacea for commerce and marketing; rather, some careful balancing is crucial, as well, and new social contracts will need to emerge. What does [a marketer need to know](#) about the next 5 years, today?

8) Digital transformation in telecommunications, mobile and ICT: opportunities in a new ecosystem.

The telecommunications, content, entertainment, publishing, e-commerce and social media sectors are [finally converging](#) ('TeleMedia') as mobile devices are becoming the preferred tools of connectivity and interaction for GenY and Z. All digital content – music, books, movies, banking/money, education, health / medical etc – is rapidly moving into the cloud, making very reliable, high-speed yet low cost connectivity a must-have at all times, anywhere. Yet, the business of merely connecting to the cloud is not likely to remain a stand-alone industry in the very near future because converged, digitally-native business models are proving to be increasingly disruptive. What is the future of a mobile operator, and what will this mean for the adjacent businesses in the ICT sectors, globally?

9) Disruption, innovation, transformation and growth: the next 7 years in technology, marketing, business.

The 'digital default' is near: everything and everyone is getting connected, everywhere, anytime, at increasingly lower cost. The mobile phone has become our external brain already, and devices are now truly 'the extension of man'. The coming 'networked society' will change the very definition of ownership and property (look at the media business), control and innovation – very soon, ['business as usual' will be a thing of the past](#), and many business opportunities will become transient rather than permanent or even sustainable. How can you get ready for this kind of future, personally and professionally? Which unintended consequences do we need to consider?

Media

1) Future Media Scenarios: the next 5 years.

Which trends are influencing media companies around the globe, encompassing technological, social, demographic, political and economic issues? 'Coming backwards from the future' Gerd will present both the opportunities and the challenges that lie ahead for [media companies and professionals](#), with the goal of helping the participants discover, invent and design their unique, preferred futures. Topics include:

- The digital default: 5 Billion mobile content users (fka consumers) by 2018.
- Internet, SoLoMo style: from paying with attention – aka getting content for free – to paying cash for added values and relevance (and how the much lower digital 'unit price' can

still add up)

- The future definition of 'distribution': ownership vs access
- The total convergence of broadcasting and 'broad-banding': TV & Radio
- The future of advertising – the end of disruption: a \$1 Trillion shift.
- Exponential technological innovation: augmented reality, gesture and voice control, artificial intelligence (AI), automated language translation, screenification
- Why 'Big Data' is the new currency of the digital age, and what it means for media companies
- Newly emerging digital business models for publishing and print media (innovation), and how to adapt them (transient advantages)
- Examples of dramatic digital media innovation that is likely to be successful in the future: disruption is at the centre of innovation
- How convergence is finally a real and present opportunity: telecom and media, devices and services, products and experiences
- Demographics and global trends that will impact media (older consumers, shift of growth to the South and the East, risk-averse cultures)
- Consumer habit and expectation changes (trust expectations, real-time anywhere anything, radical transparency, sustainability, customer delight etc)

2) The future of 'free' and the end of Faustian bargains

In the past, many of us have enjoyed the seemingly unrestrained and global flow of information and content on the Internet. Feels-like-free news, music, videos, books, magazines and TV shows have become a global standard, various most unfruitful attempts at [paywalls](#) notwithstanding. By 2020, almost 5 Billion connected consumers will be feasting on content via mobile devices, tablets and internet-connected TVs, and everything will be available in any language (with automated real-time translation) and on any platform, and sooner rather than later even to very-low-income demographics. Is there a good balance between [abundance and scarcity](#), and how will we define value in the future when even physical goods can be easily replicated anywhere with 3D printers? If we don't pay, will *we* become the content, the package, the product that is being sold?

Society

1) The future of privacy

Most of us are habitually sharing personal data on the Internet, and exponentially so now that the 'Social-Local-Mobile-Video-Cloud' is available almost everywhere. Our data is inevitably shared while we search the web or use mobile apps, share updates, rate a vendor or restaurant, use our mobile devices to navigate, buy something with a credit card, use a customer incentive card or just post a short comment on social media platforms. Will total surveillance – and related concepts such as the 'quantified employee' that is constantly monitored with intelligent software tools and via wearable computers and cameras – become our new reality, or will we need some sort of 'digital non-proliferation agreement' i.e. some global digital rights bill to stem this tide of happy/creepiness? Is [privacy](#) really dead, and should it be? Would a world without anonymity and personal secrets really be desirable?

2) Rebooting capitalism and the future of consumption: will 'sustainable' really become the 'new profitable'?

Over the past 2 centuries, the industrial and even the early information-age paradigm of 'profit and growth at pretty much any cost' has remained at the very core of our leading capitalist economies – and seemingly no viable alternative to capitalism, itself, has emerged. Growth is what everyone desires and

what every nation seems to strive for; and GDP / GNP curves is how we traditionally measure growth – anything but an upward trend is immediately punished on stock-markets and in country-credit-worthiness ratings. What will happen if we just continue with 'business as usual'? Will technologists, by themselves, really find a way to undo all the damages we have already done?

3) Digital obesity, digital detox, and the coming 'joy of missing out': will 'offline' become the new luxury? Increasingly, people are complaining about 'the tyranny of connectivity, about getting bloated with information and being overloaded with data, media, updates and notifications. There now is so much of everything, and it all 'tastes' so good, and the price is right (well, mostly...zero), so we just keep eating more of it. Are we risking to become 'digitally fat', data-bloated and over-saturated with too many good digital snacks that are being pushed at us – and where will this take us when the flow of 'big data' actually accelerates 100x in speed, variety and volume? So does technology still mean pure empowerment for consumers, mostly, or is it really becoming a tool for a new kind of enslavement – or both? And if we had to consider this question, could we actually live 'off the grid' and still function in a networked society? How do we strike the balance?

4) The future of the internet: big data, big brother, big tech, big telco and big gov...? Technology is progressing exponentially, and what sounded like science-fiction only 3 years ago is now becoming a reality: Google Glass, self-driving cars, predictive search and anticipatory services, ultra-smart electronic agents and voice / gesture controlled devices, digital classrooms and affordable telepresence. Connectivity is becoming like water and ultra-smart mobile devices are the new cigarettes: low-cost, omni-present, hyper-social and ultra-addictive. We are looking at the most amazing commercial opportunities as well as some quite vexing ethical challenges in the next 7 years and beyond. Gerd will share his insights and key foresights on the [future of the Internet](#), telecommunications and telemedia, data, privacy and technology, depicting the most crucial scenarios that are likely to await us in the immediate future, globally.

The future of work

1) Key trends impacting the future of work and jobs

Machines and smart software will likely automate-away between 40-60% of all work that is mostly repetitive or algorithm-based, in the next 20 years. Abundance will result from machines doing most of the work for us, (hopefully) freeing us up to no longer define ourselves by what we do for a living. We will eventually work much less, or redefine work as what we would ideally do even if we weren't getting paid. Basic income guarantees (BIG) may be one of the inevitable results. What will this mean for the future of the economic system, for education, [training and learning](#)? How can governments and businesses understand and get ready for this?

2) The automation of everything, the rise of smart machines, the IoT and AI: impact on jobs and employment.

Automation is everywhere, already: from electronic bridge-tolls to connected cars with dash-cams and self-parking capabilities, to digital wallets and mobile payment platforms, to networked medical devices and quantified-self applications, to sensor networks for traffic control and robotic nurses for the elderly – and this is only the beginning. The next 5 years will bring rapid advancements in all areas of AI, robotics and the Internet of Things, and almost all of them will bring more automation to every sector of our society (and I am sure this will not always be a good thing, either). In the near future we may need to focus on pursuing human-only jobs, i.e. jobs that only humans can undertake – jobs focusing on creativity, design, pattern recognition, negotiation and other 'soft skills', on right-brain capabilities or on

emotional context. However, unemployment is very likely to soar, regardless, as ever smarter and cheaper machines increasingly automate simple work processes. So will we see the rise of a minimum guaranteed income (i.e. get paid without working) in some developed countries such as Switzerland? The very [concept of work and 'earning a living'](#) will need to be re-imagined, and soon.

Education, learning, training and skills

1) Technology and the Future of Education, Learning and Knowledge.

Education is next on the list of to-be-disrupted sectors of our society, following music, media, film, TV, print and journalism. Incumbent educational institutions are witnessing a tidal wave of disruptive innovations driven by technology as well as by globalisation. Will true knowledge – and beyond that, 'wisdom' – still require us to look beyond the mere flow of information, and if so what will the future of Universities and other educational institutions be, within 5-7 years? When digital education is 'free' and simple to find and access, will universities have to adapt and become part of a larger digital education ecosystem rather than actually owning or running it? What can we learn from the BRIC countries, and will they lead the way into the [future of education](#)?

2) Re-defining the meaning of knowledge and learning in a networked society.

Digital technologies and the so-called social-local-mobile (SoLoMo) society are quickly and radically changing the definition of learning, training and education. Disruption is certain but new opportunities abound for those that can develop prescient foresights and act on them. Things are changing faster than ever before. The next three to five years are certain to bring rapid and global change to pretty much all segments of society, business and culture. Yet, it is not really about technology, in the end – it is how people's habits and social behaviours are changing because of it, and what [challenges and opportunities lie ahead](#) as a result.

3) Redefining leadership for a digital world.

In the near future, more and more products will become services, and many services will then become experiences, across most sectors of our society, as we are currently already seeing in television, books and transportation. As Mark Andreessen likes to put it: *'software is eating the world'*. Add the rise of 'digital darwinism' i.e. a much increased efficiency that almost always results from this [total digitisation of society](#), and you will truly have a VUCA (volatility, uncertainty, complexity, ambiguity) world. It will be all about radical openness and liquid, irreverent creativity, awakening imagination and a kind of human-only ingenuity in your team members, about generating actionable foresights and quickly recognising patterns among an ever increasing noise, and about focusing on what humans do best – because all the real economic and cultural value will be created here.

4) Future skills

In the future, most repetitive or machine-like tasks and jobs will be largely offloaded to ultra-smart software and intelligent machines. We will need to steer away from the jobs-that-robots-can-and-will-do and re-focus on those tasks that [only us humans can do](#). Skills or character traits such as creativity, pattern recognition, imagination and storytelling will once again become increasingly important as machines are not yet suited to tackle them (at least in the foreseeable future). How will you get ready for this?

Philosophy

1) Offline is the new luxury.

Today, there is almost no distinction between being 'online' and 'offline' anymore; at least not in a technical sense. Access to the Internet is becoming like water or electricity; always-on and always-there and – at least in most developed countries – no longer requiring any special mention. As mobile broadband proliferates around the globe and the BRICs leap into connectivity, we will be looking at over 5 Billion highly-connected users in 2020. What used to be a luxury may in fact become both simply 'normal' as well as a new kind of burden or even a liability. Being offline, disconnecting and being in the moment is certain to [become a new kind of luxury](#).

2) Every algorithm will need a humarithm

Powerful algorithms, big data and intelligent machines are quickly becoming prevalent in almost all sectors of society and business. Hyper-efficiency is imminent in many industries, ushering in a new kind of global abundance of products and services. At the same time, we are discovering that human happiness cannot be explained (or generated) with algorithms. My neologism 'humarithm' seeks to explain the increasing need for rules, values and ethics that will remain solidly 'human-only' in a world where smart (and soon, 'thinking') machines are become the new normal. How can you discover and formulate your own humarithms, embed them in your life and your business, and ensure their survival in society?

3) The Digital Ethics Challenge (from 'if' to 'why')

Technology does not have ethics, and robots don't have morals. Yet, our societies are built on mutually agreed upon values, social contracts and principles. The more technology we deploy around us, the more this dichotomy will move center stage. Technology has already transcended the question of 'if' something can be done (or even how and when) – very soon, the primary question will be 'why' it should be done, and by whom, where and when, under what circumstances. Should we really allow humans to become technology (to whatever extent), and should we allow machines to make 'moral' decisions? Should we ingrain ethical principles in machines, and if so, what should they be? What will be the basic cornerstones of [digital ethics](#) ?

4) The new interdependence default (from ego to eco)

In a global digital world, very few countries, companies, people or things will remain completely independent – we are on the road from independent to interdependent, and from [ego-systems](#) to [ecosystems](#). This will have far-reaching implications: ecosystems of technology, business, countries or politics are being forced to become networked and hyper-collaborate rather than hyper-compete. It is now abundantly clear that global issues such as energy, food or terrorism will not be solved by the actions of independent players. How can you remain in charge of your destiny when much of your success seems to depend on what others do, or their willing collaboration? How can you become (or remain) indispensable in this new ecosystem? What does this trend mean for regulations, laws and social contracts? How will this play out with 5 Billion connected Internet users in 2020?

Futurism

1) Discovering the Future

Clearly, in a world that becomes faster and more intertwined every day, we will need to become much better at [developing foresights](#), and more adept at thinking beyond the obvious. If indeed logic proves but intuition discovers – as Henri Poincare once said – how will we implement this concept in our work and in our lives? How can we re-discover our imagination, and make more room for playful discovery?

2) How to be(come) a futurist

In the past 15 years, and with over 1500 speaking engagements under my belt, I have found a few unique

ways of observing the future and generating the key foresights. This session shows how I try to do this, what tools I use, how I look to maintain a good present/future balance, and how to deal with information overload.

Gerd's [Endorsements](#) (download all LinkedIn Endorsements: [Endorsements March 2015 LinkedIn](#))

Download Gerd's entire LinkedIn profile: [LinkedIn GerdLeonhard March 2015 all](#)

Gerd's [Keynotes on video](#)

Headline-only topics and other ideas for talks

1. The coming data-wars: if data is indeed the new oil, should we license the mining and refining of data as well as regulate the digital gas stations
2. Why big data will need big people, big ethics – and a new social contract
3. The future of cloud computing between convenience, control, trust – and the government
4. Artificial intelligence – the good, the bad and the ugly
5. How computing moves inside of us: the coming interface revolutions, and how they will challenge the definition of 'human'
6. The future of the creative class, and the middle class, in a digital world: avoiding a digital winner-take-all economy
7. The rise of digital totalitarianism and why we need to construct digitally-native ethics, standards and regulations
8. Digital freedom and human rights in an always-on and globally networked society
9. Mass surveillance scenarios: why it matters, and what to do about it
10. Why trans-humanism may be like nuclear power, and why I am concerned about the concept of [singularity](#)
11. The joys and perils of [paying with personal data instead of money](#): is this deal becoming a truly Faustian bargain?
12. The rise of new digital business models that will not just rely on data-capturing, sentiment-spying and user-tracking
13. The redefinition of privacy in a digital world: is this a 'red pill or blue pill' issue? Privacy in the age of the publicity default.
14. Digital obesity and data / connectivity / media over-consumption: a clear and present danger, but how to deal with it?
15. The rise of LESS and SLOW (asset lightness)
16. Nature's crucial role in a totally digital world (biosphere thinking, [ecosystems](#) etc)
17. The rise of what I call *fake-worlding* and the danger of identity-loss in a hyper-connected world
18. The quantified self – or the qualified slave?
19. The coming automation of 2 Billion jobs, and the [coming shift towards human-only jobs](#)
20. New business models for humanity: beyond mere GDP: re-defining capitalism; leaving a burning platform
21. The future of personal branding in the age of hyper-transparency and total exposure: how to remain...human
22. The advent of digital darwinism: eventual destruction or invisible-hand-like market evolution?
23. A survival guide to transition trauma while we go from the information society to the experience society
24. From egosystem to ecosystem: the global shift from independence to interdependence

25. Climate change, global warming and the need for dramatic new growth metrics
26. Sustainability: unmasking the the eternal promises of technology, and finding a new path
27. Green futures: how to tackle the truly wicked problems by going beyond the obvious
28. How to truly understand 'the people formally known as consumers' (generation RE::::)
29. How to stop focusing on hyper-competition and start hyper-collaborating (in person, and in business)
30. The power of leap-thinking and going beyond the obvious (how to infuse futurism into your company)
31. How to discover one's 'old logics' and flawed assumptions, and then discard them
32. Social media futures: beyond hedonism and the noise of self-marketing
33. Advertising's evolution from mousetraps to magnets: is this the end of lying?
34. Digital marketing beyond abuse, noise and interruption: dead on arrival?
35. The future of reading and languages in a machine-reading and translating world
36. The future of education and learning when almost all all knowledge and information becomes on-demand
37. The coming global brain, and how it may solve our biggest problems – or become our biggest problem



I have been influenced by many great people; including all the great minds whose books are in my Kindle queue (you can review my public Kindle highlights if you wish) such as Jeremy Rifkin, Jaron Lanier, Yoshai Benkler, Larry Lessig, Cory Doctorow, Paulo Coelho, John Elkington, David Korten, Seth Godin, Stewart Brand, Richard Branson, Alvin Toffler, Ray Kurzweil and Don Tapscott. Thanks to all of you!

