

Democratizing the future

Towards a new era of creativity and growth by Josephine Green

PHILIPS

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Abstract

Major corporations are often restricted by a too-limited view of the future. This view is based on the western belief that time is linear and that the future is merely an empty space that can be 'colonized' to the present and filled with ever more technology and consumer goods. However, this technology and consumer determinism now threatens to compromise our wellbeing and prosperity.

This paper argues that we need different ways of thinking, being and doing if we are to live well, prosper and safeguard the future. Primarily we need to go beyond the straightjacket of consumer needs and a consumer approach, and also encompass social needs and a social approach. By doing so, we can drive a new era of creativity and growth.

Working with this emerging social space therefore becomes both an opportunity and a necessity. However, we must not only re-invent our social industries, but also our lifestyles and even the very growth models upon which they are based. To achieve this, the new technologies enable more radical innovation through the delivery of more context-based customized services and systems. Such place embedded systems have the potential to deliver sustainable solutions for the 21st century.

Shifting our emphasis from consumption to services and systems, and combining a consumer-led and socially-led approach, means that how we think about and interact with the future will change. This paper explores these changes and examines how we might open up and engage with the future differently, in terms of going beyond:

- a market-led approach, based on consumer research and innovation, to a socially-led approach based on social research and social innovation.
- the act of researching the future to directly engaging with the future through people who are already creating it today.
- closed research and innovation to open co-creation with stakeholders, especially users.
- a linear interpretation of time and the future towards new conceptual models that allow a more imaginative and creative interaction with the future.

In short, we need to shift the emphasis away from technology and the market and more towards people and responsibility through ownership. It is time to democratize the future.

We live in an age
in which we have to
re-invent many of our
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transport

1 A change of age

In many companies there has been a shift in the last decades from a focus on technology research and innovation to a focus on consumer research and innovation. **This shift mirrors the realization that technology can drive growth but often fails to be sufficiently in tune with consumers' needs and aspirations.** In other words, there have been too many mistakes and too many misses. The shift from technology to consumer also reflects the increasing influence and (purchasing) power of consumers, captured in the oft-repeated mantra; 'the customer is king'. Such a consumer emphasis, however, is now beginning to show signs of weakness. The continuing rise of stress-related mental illnesses, at a time when the average disposable income in the western world has never been higher, undermines the belief that more means better. **There is too much 'stuff'** and a growing realization that filling the future with more and more consumer-driven technology and marketable goods does not necessarily guarantee higher growth, a better quality of life or even life itself, given the state of the planet. Beneath the surface things are moving.

Converging socio-demographic, technological, economic and environmental forces are transforming and transfiguring our world so that in the space of approximately fifty years, from the 1970s to the 2020s, the world will look and feel a very different place. According to Peter Drucker (1), "Every few hundred years in Western history there occurs a sharp transformation. Within a few short decades, society rearranges itself; its worldview (paradigm), its basic values, its social and political structures, its arts, its key institutions. **Fifty years later there is a new world.**"

Such a dynamic change of age is not served by incremental innovation but by deeper structural change and radical innovation. An example is how we have to re-think and re-invent some of our basic social industries such as health, care, education, transport, and – beyond the social industries – our lifestyles. These are all things that grew out of and were styled around the industrial era but need to be re-invented for the 21st century. As this paper suggests, the more progressive and ultimately more successful companies will progress from a consumer/market-led approach to a people/social-led approach.

To make sense of this we need to identify and understand some of the factors influencing the metamorphosis from a market-led to a socially-led company.

“We are living
in a change of age
rather than
an age of change”

Powerfull Times – Rising to the challenge of our uncertain world (2)

2 Beyond consumption

Diversity

Post-industrial society finds itself more and more at a meeting point of cultures, beliefs and behaviors. Individual and more insular views are now confronted by many different opinions, and **the world has never been so diverse or seen to be so diverse**. A single undeniable truth, from a higher authority, gives way to multiple truths in which people, both as individuals and as groups, walk the path to their own truth. This has increased the number of clashes and conflicts, but at a deeper level, the top-down pyramidal 'command and control' structure of the past is making way for greater personalization of the future and a rich and varied kaleidoscope of personal and collective lives. Our 'way' becomes relative and new 'ways' become feasible and – through exposure and contact – even inspirational. We are left knowing that there are all sorts of people leading all sorts of lives in all sorts of ways.

Creativity

This greater freedom to pick and choose, when matched with new technologies, signals the final demise of the 20th century and of mass consumption, and marks a shift towards mass creativity. **Through web 2.0 social networking and community enhancing websites, the consumer is becoming the supplier of content, taste, emotions and goods**. "Users move from the back end to the front end of innovation and, through enabling platforms and tools, singularly or together (peer2peer) create their own values and solutions"(3). The notion that this is here to stay is supported by the statistics: 5 million blogs in less than 2 years, with 175,000 added daily; 100 million clips viewed daily on YouTube; 116 million users of MySpace in 3 years; Wikipedia in 112 languages; 150 million users of eBay worldwide. In essence web 2.0 is more "an attitude than a technology". One in which the power of we replaces the power of you. As Charles Leadbeater explores in his forthcoming book to be published in 2007 (4) "They (consumers) do not want to be just passive recipients but players and participants... They do not just want more choice but more say. These are activities of mass participation rather than mass consumption."

However there is also the other side of this increased freedom to choose. Greater self-determination and greater awareness is mirrored by greater complexity and greater responsibility. Life may be freer but it's not easier. So we start to ask: How do we live? How could we live? How do we want to live?

Wellbeing

We are increasingly aware that ever more technology, productivity and efficiency has helped drive the industrial-consumer economy, but to the detriment of the environment, the poor and personal happiness. The costs begin to outweigh the benefits. So what exactly is quality of life? Is it more money, more goods, or something less tangible? As the numerous happiness studies testify, it seems that what makes people happy, over and above a certain basic standard of living, **is more intangible than tangible, and that the belief that more makes you happier is a myth rather than a reality.** People, therefore, are re-defining their wellbeing, not so much in material ways but more in terms of **health and wellness, connectedness, personal growth and personal control.** Coupled with this is a search for a more sustainable development model based on balancing wealth and wellbeing (5). Contrary to popular perception, this is not just a rich person's issue. Given the search for a more holistic wellbeing and the damage to the biosphere and to health, more sustainable livelihoods and lifestyles make sense in advanced industrialized nations as well as developing ones.

Greater diversity and creativity and the re-evaluation of wellbeing testify to the fact that we are entering a new era. Consumers who defined their identity and worth through consumption and their lifestyles become producers, who define their identity and worth by creating, individually or collectively, their own content and lives. Consumption is reduced to an aspect but no longer the aspect.



3 Beyond technology

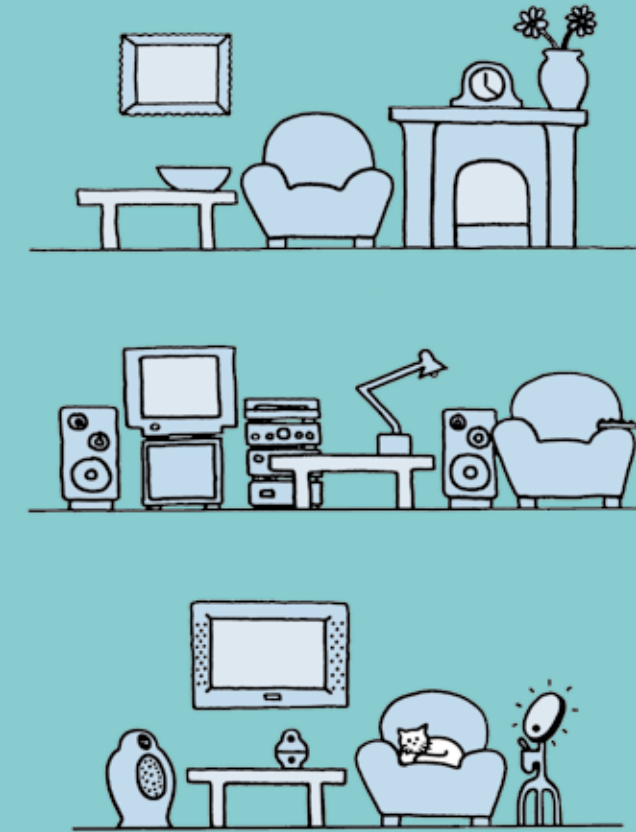
The dematerialization of happiness is matched by the ability of the new ambient technologies to dematerialize benefits. As a new age seeks greater expression and more sustainable wellbeing, new digital technologies offer greater possibilities. More personalized futures are matched by the ability of these technologies to facilitate customization and empowerment. Consider the following scenario.

Imagine you are somewhere in the future. Unlike before, you are now much more concerned with a balanced lifestyle that enriches the mind, the body and the soul. Too much stress, acceleration, performance and Prozac in the past has altered your perspective. You are now more interested in community and friendship, in personal growth and creativity, in wellbeing and in controlling your own path and directions in life. In terms of your everyday you are able to achieve these easily through the interaction of the digital and physical world. Whether at home or in a public space you intuitively and easily interface and interact with information, with friends and with yourself in ways that were unimaginable in the recent past. You now live in an economy based on information, services, experiences and solutions, in and through specific contexts (e.g. the home, the car, the hospital, the hotel). You value being able to customize this in a way that is personal and fitting to you, as an individual or as a group. Living as you do in a context economy, value is based on customization, adaptability and transformation.

4 The context economy

An ecology of people and technology

Through integrated sensors and software our products and environments become smart and it is this assimilation of technology, into our everyday environment, that underlies the context economy. As technology merges into our walls, floors and clothes, then we no longer 'consume' technology, but live with it side-by-side as it supports and facilitates our daily living, an invisible helper at the ready. Through this more intimate co-existence our identity becomes less about needs ('what do I want?') and more about activity and experience ('how can I best take advantage of what I want to do in the way I want to do it?'). These take place in the specific context of a home, car, public space, hospital, school or geographical area. Philips' vision of ambient intelligence is about this relational co-existence (6), and by changing the paradigm between people and technology it has the potential to take us beyond consumption as classically understood. In the context economy, value is generated less through the selling and buying of goods and more through an ecosystem of information, services, experiences and solutions. What we value, rather than what we consume, becomes the issue.



The house of the future will look more like the house of the past than the house of today.
Stefano Marzano

In the context economy, furthermore, passive consumers become active producers of their own lives, as they search for and appreciate ways of interacting with, controlling and creating their environments. **People co-create their own content and experience and value anything that enables personalization and creativity.** How we light up an environment, monitor a health condition or access some information will be up to us. Through speech, gesture or touch we can interface with a display, a hand-held device, or an intelligent wearable garment. What becomes increasingly important is the quality and choice of the interaction. It is about a deep customization, based on a live-in relationship with technology, in which interaction and access are important.

An ecosystem of information, services, experiences and solutions

Our research around value in terms of deep customization has led us to a design strategy of 'open tools' (7). This strategy shifts design away from delivering a finished product or experience towards designing an 'unfinished' or 'open' solution that can be completed and evolved by the user or users. As part of our Design Research program we have created a number of 'probes' or experience demonstrators to explore this territory together with stakeholders. One example is Nebula, in which we moved from designing a new alarm clock to asking the question 'how do people like to experience waking up in the morning?' This led us to develop a simple LCD projector into which the user(s) can download images from the web. Two dots traveling across the ceiling at night meet at the set wake up time, and trigger the projection of images onto the ceiling. Such an 'open' tool allows the users to decide what images they want and in essence to create their own experience. Another such experience demonstrator was developed on the European sixth framework research program, Living Memory (LIME). An interactive 'coffee table' allows users to intuitively access information about their physical community and to simply take out and put in information according to their interests etc. In these and other cases, probes allow us to explore new territory in terms of interfaces, interaction paradigms, materials and systems interactions.



Above: Living Memory (LIME)

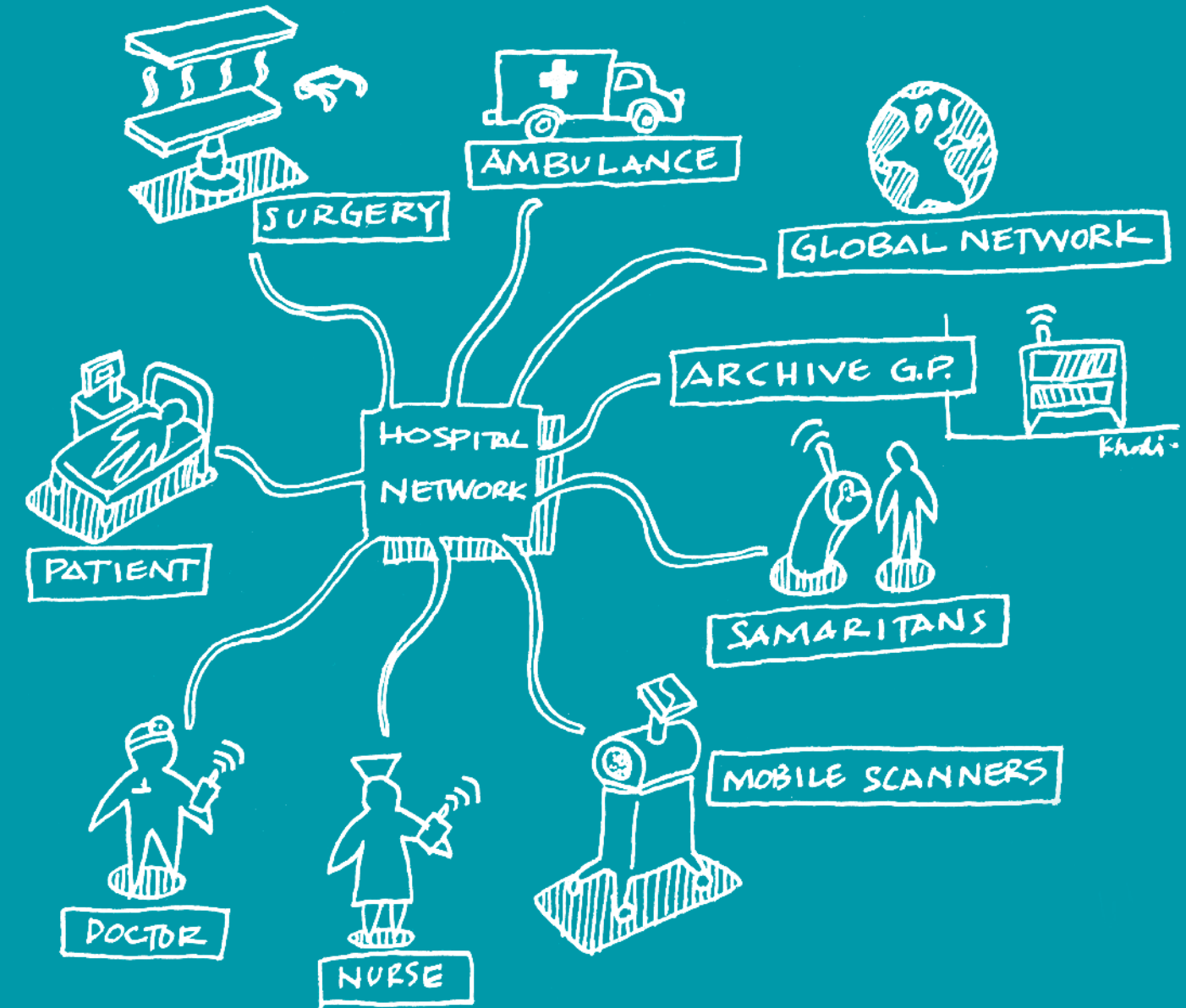
Left: Nebula



Connected ecologies

Co-existing with technology in a more intimate way also opens up a more holistic approach to living. Stand-alone products give way to connected and networked environments that enable a more systems-based delivery of value, for example in the area of health. Ambient technologies can enable a home-centered health system in which users are connected to different circles of care, from family/friends to support professionals, expert patients, doctors and the hospital. This more decentralized and user-centered system enables people to intuitively monitor and be aware of their health and wellbeing, whether this is in terms of prevention or disease management. In our research we are looking at how, following a heart attack, patients can gain peace of mind and quality of life through the unobtrusive and constant monitoring of their condition. This could take place for example by means of an intelligent vest that relays any discrepancies to the appropriate medical professionals. Such systems reframe the question from how can we bring people to healthcare to how can we bring healthcare to people? The same question could be asked of education.

Such user-centered systems, based on an intuitive relationship between people and their technology, encourages the full engagement of people as active participants in their health or education, to name two important areas. As Hilary Cottam and Charles Leadbeater point out; "Professionals and users could achieve a huge amount, working together, if they operate within a new framework" (8). Such systems solutions are relevant to both advanced and developing regions, given that the former need to re-invent new ways of delivering benefits and the latter need to leapfrog old solutions. Whether over-stressed or underdeveloped, social services such as education, health or care for the sick or elderly are ripe for new approaches and solutions.



An ecology of growth

An approach based on context and systems also allows us to consider a more sustainable model of development and growth. To quote Prof. Ezio Manzini of the Polytechnic of Milan; "The dream of wellbeing dreamt until now by the few is not sustainable for all. We have to change. We have to learn how to live better while consuming less environmental resources and regenerating the contexts of life" (9). It has been suggested that if everyone were to consume as we do in the west, then we should need 11 planets!" With a population of 6 billion and growing we have to consume differently. Given this, ambient technologies and a context economy help us to consume better or differently through new mixes of products, services and solutions. In these mixes, value is less in the stand alone material object and more in the system's intelligence and information. Take for example the television. Will we want a stand alone television in the future or will we want a seamless flow of content through our homes based on new display technologies? Another example is the car. Will we want to own a car or will we want to have access to transport where and when we need it? In these examples, rather than a revenue model based on making and selling a material thing, new business models emerge, based on updating and customizing the systems capabilities. A service and solutions model replaces a manufacturing one and, in so doing, avoids a process of continuous material obsolescence and waste. Such systems evolve over time, growing up rather than growing old, meaning they can be up-dated, not dumped.



However, there is more to the future than better ways of consuming. There is poverty. As Dr. Mohammed Yunus, the founder of the Grameen Bank and the pioneer of microfinance explains; “Business and the market economy have been instrumental in creating wealth and growth globally. But they have also played its part in creating a world where 40% of the world’s population controls 94% of wealth, with the other 60% sharing the remaining 6%” (10).

At a deeper level, new growth models can evolve in a context economy. Thinking contextually, in terms of place and activity, encourages more local industries in which local communities, using local knowledge and local resources, create and sustain their own livelihoods. Examples in the West can be found in the Slow Food movement in Italy. What initially started as a protest against imported fast food and the protection of local culture and prose is developing into a bigger European movement based on the generation or re-generation of local economies (11). This decentralized approach to value, rather than global production and consumption, promises to be more sustainable for the future as it offers transparency, a lower ecological footprint, increased diversity and the enhancement of local contexts, communities and livelihoods (12). It also has the power to help us re-think our relationship to time and to experience. Rather than focusing on speed and a superficial experience, it allows us to tap into and experience greater depth based on local environmental and social qualities. Understanding where things come from and how they are produced gives them greater meaning.

Examples of local sustainable livelihoods include the surge in organic produce in the West and traditional medicine in India. Such models and initiatives are important in this change of age, as they signal a different way of being and doing. Another model, complimentary to this decentralized and distributed model is the sufficiency model, based on the interesting work of Wolfgang Sachs at the Wuppertal Institute (13). This model is about enough rather than more. It is about a state of mind, one based not on learning how to give and get more but how to take less. It implies re-thinking lifestyles and learning how to live elegantly within limits and in harmony with nature. This, in turn, brings us back to GDP. European growth is around 2.5%, while China is around 10%. The only way we can sustain our lifestyle, so the argument goes, is for us to accelerate our innovation. So, now it is no longer about more and more and faster goods but about more and more and faster innovation. But is it actually about this or is it about re-thinking our lifestyles and our priorities? Is it more about performance or about values?

In the final analysis, a context economy and ambient technologies, whether in terms of personal and collective customization, use-centered social systems or local livelihoods, opens up the possibility of a more sustainable path to prosperity, balance and wellbeing.

5 New economic value

If, therefore, the industrial era was characterized by consumption, the next era will be characterized by context. The context economy is already transforming, or has the potential to transform, economic value at a personal, social or global level.

Personal value

At a personal level, given the drive towards personal growth and transformation, economic value will increasingly be defined not in terms of consumption, but in terms of the delivery of transformation itself. Personal economic value will be less about the act of consuming and more about the act of transformation, as people search individually and collectively for things that help them to grow, experience and transform. As Stephen Dinan expressed it in the Journal of World Futures, Jan. 2002; “An increasing amount of economic value exchange will shift to concerns of growth, human potential, spiritual practice and life-enriching experiences. A major area of wealth generation in the transformation age will derive from the systemized delivery of transformation itself”.

Social value

At a social level, the ability of ambient technologies to deliver more contextualized and distributed systems, based on and around users and dealing with issues like health, illness and care, will generate economic value. Given the challenges we face, these social ‘industries’ are set to overtake the industrial industries of the 20th century. In fact, Geoff Mulgan of the Young Foundation claims that the biggest industries of the 21st century will be health, education and wellbeing, dwarfing others like automotive, telecoms, IT and steel. It is estimated that social activities will contribute to 30% of the economy, while the old industries will account for less than 5%.



Global value

At a global level, the need to alleviate poverty and lower our ecological footprint and regenerate the contexts of life implies that we have to generate prosperity through alternative growth models. We need to go beyond a purely growth metric, such as GDP, that measures and pushes towards higher and higher productivity, at the cost of the environment, health and wellbeing. When depression and crime are good for GDP because they sell more anti-depressants and anti-theft devices, then we have a problem. In the future a more varied economy is likely to emerge, encompassing local for local, local for global and global for local. Such models will support the idea of bringing production and consumption closer together, of enhancing and enriching more local/regional contexts and of promoting more sustaining and sustainable livelihoods and lifestyles. It is possible that on this journey developing nations such as China, the first country to talk about a Green GDP in its 11th five year plan, and India may lead the way.

Whatever the model, and whether at a personal, social or global level, we need to free ourselves from the tyranny of ever-higher productivity and the making and consuming of yet more and more 'stuff'. As we re-define quality of life and invent new lifestyles, value needs to be re-defined through a more humanizing economic system of wellbeing and prosperity.



“India’s concern was always with eternity, not with time. We will have to weave the web of a new order guided by the principles of creative freedom for all in order to provide an ethical and modern direction to the wayward movement of science, technology, wealth and power”

J.C. Kapur

Our Future: Consumerism or Humanism

6 A socially-led approach

Perhaps the best way to understand a socially-led approach is by looking at what it is not, i.e. by examining a flawed market-led approach. One such example is the present issue around high rail fares in the UK as outlined in the newspaper, The Independent (14). A rail ticket, for example one from Manchester to London, if not booked well in advance, now costs 214 pounds. The low cost airlines, however, on the same route, cost less, encouraging people to choose planes over trains. Presumably the rail company increased prices because there was a growing demand. While this may make good business sense, the bigger problem is that rail travel uses up only a tenth of carbon emissions compared to flights. Given the fact that the rail companies already receive public subsidies, who exactly is benefiting from these higher rail prices? It's not the passengers, it's not the tax payers and it's not the planet. It is hard not to come to the conclusion that the sacred cows of the market: supply and demand, choice, higher growth and maximizing profits do not in fact ultimately benefit the public and the planet. Far too often they benefit the investors. Socially-led companies need to do it differently, moving beyond neo-liberal economics and a market ideology and away from the deeply ingrained view that there need to be winners and losers. There need to be winners.

technology led

50-70's

consumption

manufacturing
driven

products
hardware
passive-receptive

market led

80-000's

experience

marketing /
brand driven

emotions
aesthetics
receptive-active

socially led

2005+

transformation

people /
network driven

life
tools/sw/content
co-creative

the context economy

Social innovation

Given the need to invent new ways of being and doing, together with the pressing need to re-invent many of our social industries, it makes sense to take the next step along the continuum from a technology- or consumer- to a socially-led company. Such a step, however, requires a very different mindset. A technology-led company is based on technology research and innovation, carried out primarily by experts in labs. A consumer/market-led company is based on market/consumer research and market innovation, also primarily carried out by experts. So how does a socially-led company operate?



The difference lies in the notion of social innovation as opposed to technology or market innovation. Social innovation is based on researching social needs and developing social solutions. Such innovation implies new ways of living and new ways of doing. In the industrial era it was in fact social innovation that created the right conditions for further technology development and economic growth. Throughout the Victorian period in the UK it was the creation of social innovations like schools, libraries, building societies and housing that supported and drove the growth of the industrial era. A more recent example of social innovation is the Open University. A need for a broader access to higher education was identified and then enabled by the emerging technology of television. The relationship between social innovation, technology and economic growth is tightly bound together.

In fact, solutions based more on systems and context, imply less technological innovation and more social innovation. A new health delivery system, for example, will be successful not primarily because of its technology but because it redefines the access and delivery of health and wellbeing in a way that makes sense socially and culturally to the various users. Social innovation and social solutions will be successful if they ultimately enrich and enhance the experience of wellbeing of the users while also serving a social need. A socially-led company of the future, therefore, is not only about social science research to identify social needs but about researching social, cultural and people needs. This is the key to success for the future and for companies who are well positioned to take advantage of this opportunity. In this respect, Philips' history and competencies makes it well placed to combine the know-how of both a technology-led and a consumer-led approach to create a socially-led approach.

Finally, social innovation is not just about researching and creating new solutions for the times, but it is also about how we create them. It is about doing things differently. To be meaningful, social innovation has to engage with the different stakeholders from the beginning through a collaborative and co-creative process, given that the ultimate relevancy and success is dependent on their experience and their participation, especially of the users, themselves (15). In ensuring more relevant solutions, this socially-led 'democratic' process will 'free up' the enabling technologies to truly drive wellbeing and prosperity.

Interestingly, the first International Conference on Social Innovation took place in Beijing, China in 2006 and reflects the growing importance of social innovation as a means towards alleviating major social issues such as health, education and poverty (16).

8 The future

So how do we approach the future, given the growing importance of social innovation, and given the fact that we live in a time when the old system and its worldview is breaking down and a new one is in the making? In other words, if technology and the market no longer determine the future, then what does? Where is the future? Do we need to interact and engage with it differently?

These are some of the thoughts and questions that have fueled our thinking in Philips Design within the area of Foresight and Design Research. We are conscious of the fact that the present space between two worldviews and two consciousnesses offers a golden opportunity to re-imagine and re-humanize the future. The outcome to date is the development of a multi-faceted Foresight in Design approach. This is based on researching, engaging with, co-creating, envisaging and re-conceptualizing the future. This approach opens up the area both conceptually and pragmatically and contributes to finding a way of 'futuring by doing'.

“Means are ends
in the making”

Gandhi

Foresight in design

Researching the future

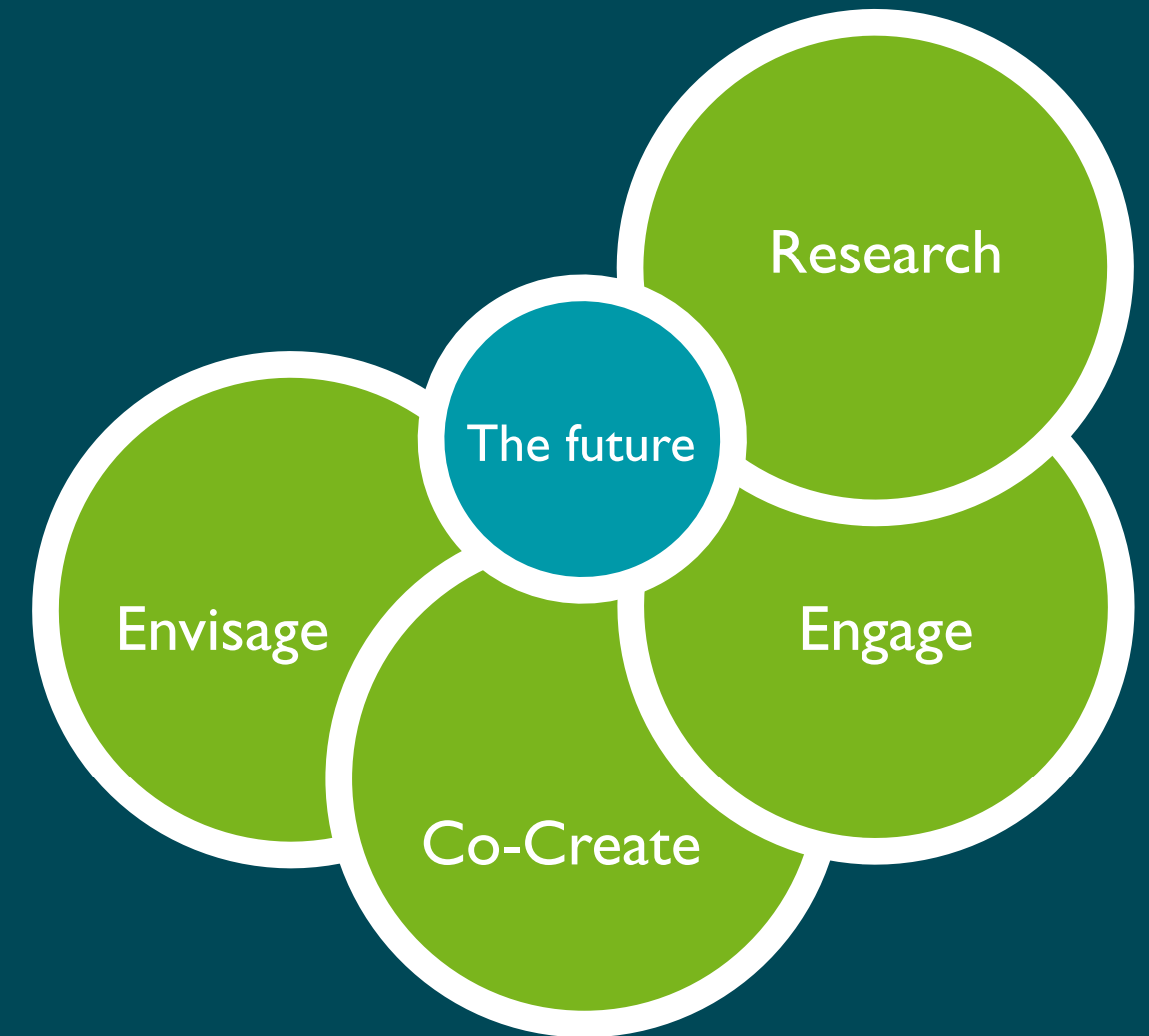
If social innovation is increasingly important, and if we are to go beyond a technology and/or market view of the future, then, as stated above, we need first and foremost to think about the future through a social and cultural lens, researching and understanding socio-cultural contexts and values. This is true whether we are thinking about consumers (as people first and consumers second), about social needs and social solutions, or about both, i.e. users in social solutions.

Philips Design has always taken a more socio-cultural approach to research, exploring beliefs, values, aspirations etc. For more than ten years a diverse team of futurists, psychologists, historians, anthropologists and designers in Design Research and in the Foresight and Trends group have been researching society, cultures and people in terms of:

- the deeper currents in social values and the main drivers shaping tomorrow's world, drawing on futures and social studies.
- the cultural expressions of how these values are manifested, drawing on cultural and design studies.
- the needs and behaviors of people in their everyday lives and activities, drawing on ethnography and the human sciences.

The primary aim of our socio-cultural research and the creative tools that translate this research and make it accessible to others has always been to anchor the future and innovation in terms of people, and to trigger out-of-the-box thinking.

How do we label this research? Is it futuring, foresighting or market research? Actually it is at the interface of these different disciplines and is trying to forge a new qualitative 'human' storytelling into the futures process. Ultimately this more human focus allows us to put people at the center of the future, to explore more meaningful and wellbeing solutions and experiences and to re-introduce a normative approach to the future, meaning to think about preferable futures that make sense both to society and people.



In essence, a socially-led company has to go beyond only market research and consumer research and insights towards more social network research. Building on our experience to date there is a need to:

- refine our social science approach to better identify areas in which social needs require social innovation and social solutions. For example in the areas of the elderly, food and nutrition, chronic illness, mobility, inadequate water and illiteracy.
- combine this research with our socio-cultural research in order to ensure that the social solutions are experiential and enriching.
- research not the single individual but the social network and the interactions in the social system, building on the 'multiple encounter' and 'personas' research carried out by Lucile Rameckers and Stefanie Un (17).
- research less and involve users more.

Essentially we need to ensure that we are able to identify opportunities, trigger creative insights and ground these in values research, using a network of collaborators, on- and off-line, who are strong in one or more of these different areas.

Engaging with the future

Researching the future gives us deeper understanding of change and of the realities of people in their everyday lives. However it is no longer enough. The distance between researcher and researched, even using the most inclusive ethnographic approaches, still fails to capture so much of the future in the making. So how can we actually touch this future more directly? One way is to engage with those groups of people who are actually making the future today. Such groups emerge more strongly when the world undergoes profound change. When old world meets new world, those who have already crossed over inform us about how the future will be, both through their values and their actions. Whether they are the carriers of new values or of new needs, driven by conviction or frustration, they proactively take the initiative in creating the new world. They are the change agents to the future, giving it its character, its leadership and its social profile.

To engage with the future directly we have identified three different groups. Each of these groups in their different ways and expressions are an interface to the coming future.

Cultural Innovators are the carriers of new values and the emerging mindset. They believe in sustainability, authenticity, personal growth, collective & self determination, and social and community activism. These cultural innovators, and the transformation they represent, are a powerful means with which to engage with the future and offer an effective foresight and insight tool. However the very nature of who they are and what they represent means any engagement has to go beyond more traditional qualitative and quantitative research methods. Our challenge is to engage physically and virtually, with cultural innovators to generate insights both in intellectual and experiential ways. Given this, we are creating a collaborative and ongoing two-way relationship in which, together, we explore and experience emerging values and behaviors, and a more holistic worldview. This connection not only builds more future-relevant solutions but also helps a more sensible future to emerge, based on sustainable and collaborative values and beliefs. The pioneering work of Paul Ray on cultural creatives in the USA serves as an inspiration in this work (18).

Creative Communities are complimentary to – though not necessarily synonymous with – cultural innovators. They are locally-based communities who through grassroots, bottom-up initiatives create new solutions to new problems or needs. In other words an alternative solution to living, but which has at its core an environmental and/or social benefit. Also here, researching and engaging with such communities enables us to identify new future directions and possibilities. Through a European research project EMUDE (19), examples of creative bottom-up solutions were identified, including the production and consumption of locally grown produce, the use of local materials for construction, the recycling and redesigning of old furniture, the promotion of alternative transport, the creation of local green spaces and local provision for the elderly and children. Of course, such self-help community initiatives have always existed, but – as with the cultural innovators – their significance today lies in the timing, given that in this change of age they become meaningful antennae towards an emerging future.

Social Entrepreneurs, examples of which are given above, are another group with which to engage with the future. Social entrepreneurs run businesses based upon a double (financial and social or environmental) or triple (financial, social and environmental) bottom line. In other words, rather than relying on philanthropy or charity or public hand outs, social entrepreneurs embed their social mission in business and reach self sufficiency through earned income. To paraphrase Jerr Boschee, a social entrepreneur is any person, in any sector, who runs a social enterprise. A social enterprise is any organization, in any sector, that uses earned income strategies to pursue a double or triple bottom line, either alone (as a social sector business) or as part of a mixed revenue stream that includes charitable contributions and public sector subsidies (20). As such, social enterprises promote a more varied and mixed system of different partnerships, including public private ones.

Another outstanding example, already mentioned, is Dr Muhammad Yunus of the Grameen Bank, who was awarded the Nobel Prize in 2006. In a speech hosted by the Tallberg Foundation in December 2006 he makes a crucial distinction between profit-maximizing business and social business (10). He explained how business is very good at maximizing profits for those providing investment and how social enterprise leaves profits in the hands of those who need them and has thus proven to be a far superior tool when it comes to bringing people out of poverty. It is in essence the well-known example of the fish and the fishing rod; 'give a man a fish and he will eat for a day. Give a man a fishing rod and he will eat for a lifetime'. The one major flaw in this argument is that the man is increasingly likely to be a woman. Dr Yunus explained how impoverished women possess the innate capacity for innovative business ideas so they can take care of themselves and their families, but that this will only emerge if they are provided with the first financial seed and gentle encouragement. All of which is counter-intuitive to the big banking system that is based on lending money guaranteed by collateral. Such social enterprises often represent an alternative to the centralized socio-economic development model driven by multinationals.

“Like other idealists, social entrepreneurs look at the world through rose-colored glasses, but they never forget the green eyeshades of the accountant-measuring results and finding new ways to scale up their sustainable social impact”

Jeff Skoll, The Skoll Centre for Social Entrepreneurship (21)

To sum up, a vital force for interfacing and interacting with the future is through the very people who are creating it. With a new age come new actors and new leaders and so, as old worldview leaders turn in to followers, it becomes both productive and necessary to engage with the new leaders, be they the cultural innovators, creative community activists or social entrepreneurs. Such engagement offers rich insights and validation into emerging trends, new sustainable lifestyles and new expressions of social innovation and incubation. It also stimulates internal transformation and cultural change. Our challenge is to help enable and scale up social innovation and change.

Given that the future is unfamiliar territory, as is the engagement with these people, there is a need to;

- cultivate opportunities and projects where we can work together as equals.
- help facilitate, enable and incubate some 'experiments'.
- scale up those that are successful in fostering more sustainable lifestyles.
- create a more open and experimental mindset and portfolio so that 'a thousand flowers bloom'.
- explore more partnerships including public private opportunities.

This is a particularly challenging area for large companies who are used to being in the driving seat and behaving in a manner in keeping with their size. It is a challenge, however, that must be met. According to the MP Alan Simpson; "The big idea for the 21st century is that all of the answers are to be found in the absence of bigness. It's a bit of a bummer for today's corporate giants, but tomorrow's solutions will be found in networks and systemic interdependencies, not in global behemoths" (22).

With a new age come new actors and new leaders

Co-creating the future

As we have seen, one way of co-creating the future is to actively engage with those who are making the future. Another way is to drive open and co-creative practices through the company's innovation and development processes. Whether we are thinking about a new health system, a water solution, an interactive home environment, ambient intelligence, enabling systems or open tools, the customization of future technologies is reshaping how we innovate and with whom we innovate.

By working with stakeholders and especially users to create bits of the future, there is a higher probability that the resulting solutions and systems will be relevant, appropriate and therefore more successful. As Van Hippel shows in his book, *Democratizing Innovation* (23), users are one of the most under-used resources. In fact the majority of application innovations are by users themselves who take an original application and change it to their own needs or to something different. One example is the mountain bike which was developed by users who had a specific need.

A paradigm shift is taking place in innovation, which is being democratized with active user roles and open innovation processes, and where the scope is widening from product and services innovation to business model and societal innovation. Different stakeholders are involved from the public sector, the business world (local and international companies), academia and NGOs, in addition to citizens and users. Information and communication technology is a key enabler for mobilizing and aggregating the 'collective intelligence and creativity'. An example and expression of this shift in innovation can be seen in the launch, under the Finnish presidency, of the European Network of Living Labs. The labs bring together users and experts to foster collaborative innovation and are a step towards a European Innovation System based on open co-creative labs for jobs, growth and global competitiveness (24).

The future will
be less about
predicting it
and more about
collaborative
designing it

This again is a challenge to large companies who are hardwired to come up with the perfect finished 'product'. Having users in the innovation and development cycle, especially with ambient and context technologies, means that we may have to think about putting unfinished or even half-realized ideas out there and letting users and experts 'play' with the stuff. Increasingly in the future, through such a process, we shall see a reconfiguration of what exists, putting things together in a different way, rather than waiting for the next big future or for the next big technology invention or the perfect solution. Quite possibly, future innovation will be driven by human-focused insights and inputs, half-realized prototypes and designer/user participation, manifested through an iterative process of creativity and refinement.

This innovation paradigm shift implies a changing role both for research and researchers and for design and designers. One in which they are no longer the researcher or the creative but rather part of one or more networks, to which they bring their 'tool kit' and establish a creative dialogue with the participants. What is required is therefore:

- facilitation of discussion
- extrapolation of ideas to replicate or multiply
- faster prototyping
- supporting, enabling and facilitating users, and working side-by-side with them.

In terms of how we interface and interact with the future, the implication is that it will be less about predicting it and more about collaboratively designing it. The future will emerge through interaction and co-creation. With the democratization of innovation comes the democratization of the future. Furthermore, the need to re-design systems rather than products is in turn profoundly affecting the role of design and designers, who are increasingly engaged in the design of services and systems and who, through the democratization of innovation, are taking on a more facilitating and enabling role.

Future innovation driven by human-focused insights and inputs, half-realized prototypes and designer/user participation, will be manifested through an iterative process of creativity and refinement

Envisaging the future

One way of co-creating the future is to envisage it, in other words to make it tangible. This is quintessentially a design task. Design, which has always been a link between people, technology and the future, is able to give intangible ideas and creativity a form. In so doing it increases the level of debate and interaction and facilitates dialogue, contribution and involvement from stakeholders and, more specifically, users. Under the leadership of Stefano Marzano, Philips Design has for some years now been creating 'memories of the future'. These 'memories' embed possible futures in the present through tangible prototypes. From Vision of the Future in 1995 through to Next Simplicity in 2005/6, these vision projects have built knowledge and know-how, facilitated a discussion with different stakeholders, encouraged a more creative engagement with the future and directed research and innovation. At a time when there was much talk of a very technology-oriented vision, we wanted, through our tangible prototypes, to project and promote discussion about a more intimate, human and humane view of the future. This is one way of re-introducing a more normative approach to the future and to research and innovation. Making preferable futures 'real' will hopefully in turn create more positive 'memories of the future' (x).



Philips Design visioning projects

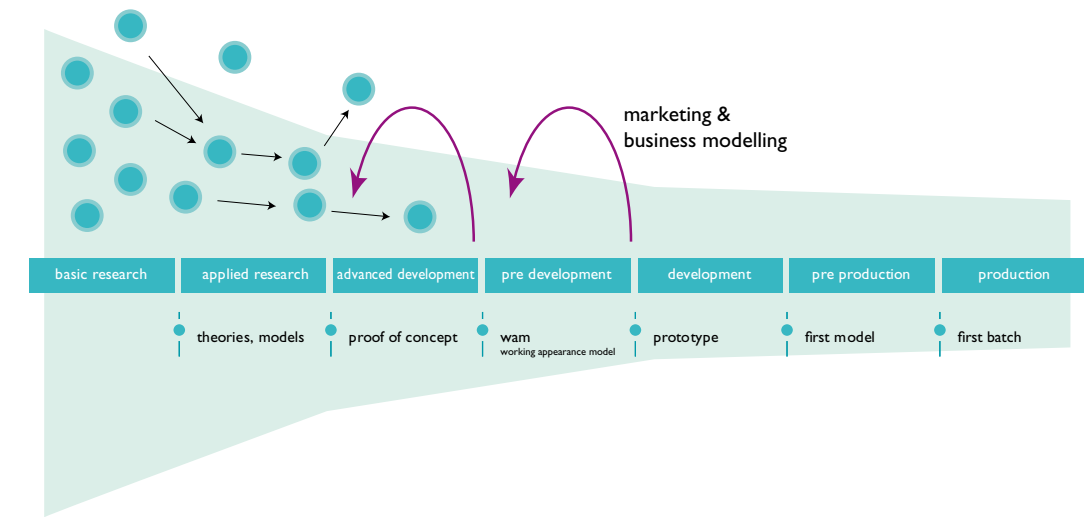


Future Horizons

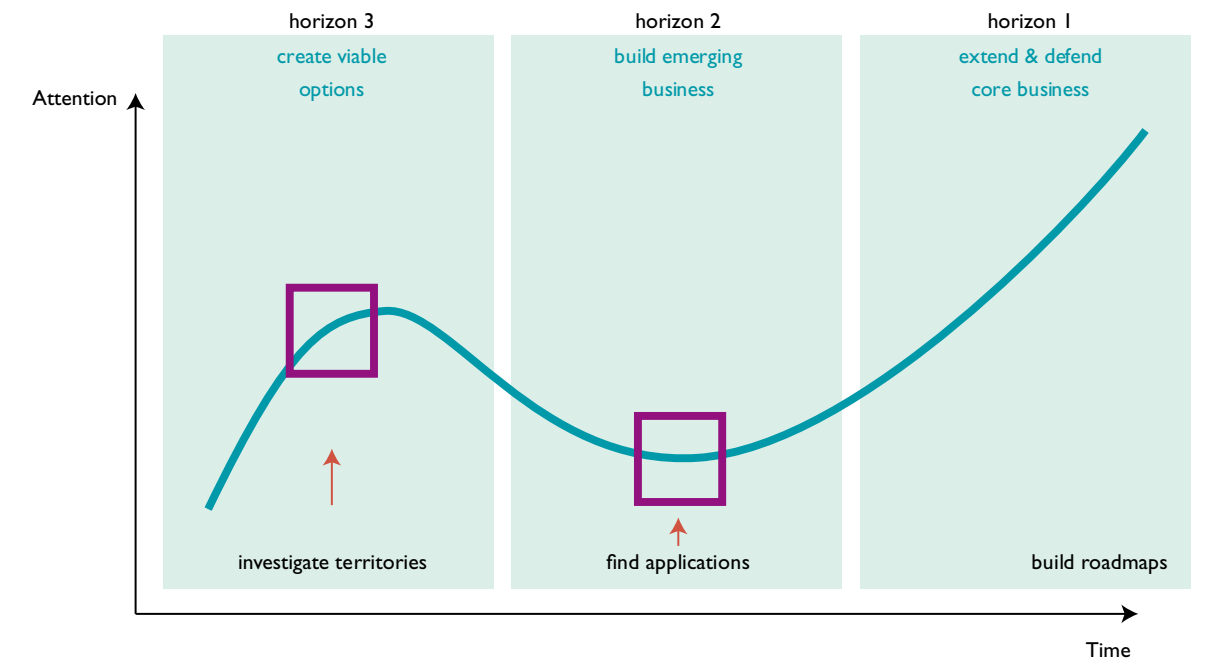
An important issue, however, when engaging with and envisaging the future, is defining exactly which future we are engaging with; near future or far future? To effectively think about and visualize the future we need a pragmatic, holistic and comprehensive framework for building, leading and sustaining innovation in the short-, medium- and long term.

The standard funnel model (fig. 1) of innovation works on the basis that all creative ideas go in at the front end. These are then progressively developed and filtered until a number of feasible propositions come out at the other end. However, this one-size-fits-all model of innovation does not take time into consideration, and also usually means that business takes control of innovation too easily and too early. The consequence is generally that short-term innovation replaces longer-term exploration. The future always seems to be tomorrow, if not today!

Building on a McKinsey model (25), Paul Gardien's design-led horizon innovation model (fig. 2) proposes an elegant framework that enables us to think short-, medium- and long term, and fits with Foresight in Design's more exploratory and flexible approach to the future and innovation (26). By transforming the funnel model into a framework of three different horizons, a more customized and exploratory approach to thinking about the future is enabled, given that horizon 1, horizon 2 and horizon 3, reflect short-, medium- and long-term futures. Horizon 3 is about more radical innovation and transformation, horizon 2 is about the next new business and horizon 1 is closer to business as usual and therefore involves more incremental innovation. Each horizon explores a different time space and therefore needs a different foresight in design approach and input.



Visual of funnel model



Visual of 3 Horizon

In horizon 3, for example, which is longer-term and has a higher degree of uncertainty, we are able to explore and experiment more sustainable futures and socially-innovative solutions. This inherent uncertainty calls for the application of Foresight in Design's more qualitative approaches and methods such as future scenarios, socio-cultural narratives and engagement with cultural innovators, creative communities and social entrepreneurs. Horizon 2, which is more about new business, builds on the input, knowledge and competence developed in horizon 3 but concentrates on users as co-creators of next applications. Horizon 1, which is more about incremental innovation, taps into market research and consumer insights, data mining, segmentations etc. Envisaging the outcomes of the different horizons also differs, from the open experiential visualizations of horizon 3 to the tangible application prototypes of horizon 2 and 1.

The importance of this open and flexible approach to the future is that it allows a richer exploration of different futures, including a more 'blue-sky' longer-term future. In doing this it both adds and re-invents value through generating sufficient creative ideas that support strategic innovation in terms of current and future opportunities. It means that the company can envisage and communicate the different expressions of horizons 1, 2, and 3 to the different stakeholders, including the public. This in turn gives the company license to explore and communicate the not-yet-perfect or the not-yet-finished. As stakeholders become more involved in research and innovation, the degree of presenting the unfinished will increase out of necessity.

Envisaging the future will prove to be truly successful if we supplement our creative juices with stimulating research and inputs. As stated already in this paper, stakeholders and especially end-users also have to actively participate and ultimately co-create the required innovation and, by consequence, the next futures. To achieve this we need to:

- collaborate more with creative mindsets, artists, musicians, poets, and others 'on the fringe'
- engage with cultural innovators and creative communities
- collaborate with social entrepreneurs
- involve users earlier in the process and throughout the process
- identify the right level of envisaging and prototyping based on the purpose.

But is this enough? Does it answer the question we asked in the first paragraph: how do we, could we, and perhaps more importantly, should we interface and interact with the future? Does it solve our problem of creating a new, sustainable engagement with the future? We believe our approach of Foresight in Design together with the horizons framework helps towards an answer. It proposes not one but a number of interfaces, through research, engagement, co-creation and envisioning, tailored to the time factor of horizon 1, 2 or 3. As such it offers a more flexible approach and the possibility of a more responsible approach to the future.

Such an approach, however, is still 'trapped' by the idea of time as past, present and future. Perhaps, at the more esoteric and experimental level, in our quest to find the future we have to challenge the very concept of time itself and try to imagine beyond our present straightjacket of linear time.

Re-conceptualizing the future

Each culture, according to its own worldview, makes time and the future its own, and our culture is no exception. Western culture interprets time as past, present and future, and sees the future as an empty space into which we can ‘trespass’, filling it with more of today and with more technology and marketable goods (27). This automatic ‘colonialization’ of the future, however, now risks creating more problems than benefits (28). Global warming and the depletion of natural resources, the growing gap between the rich and the poor and the higher personal levels of stress and burn-out all call to us, as a civilization, to re-think our relationship to time and the future. We need to evolve new conceptual models and new metaphors.

New time/future metaphors and images could have the potential to free us from deterministic and mechanistic thinking and allow us to re-integrate a sense of wonder and stewardship towards the future. How we think about the future determines the way we act in the present and new metaphors and a new narrative could allow us to engage more creatively and perhaps more responsibly with our futures.

“What are the alternative imaginations of the future? ... What are the images of the future of those we consider outside history? What are other ways to ‘time’ the world instead of the dominant scientific model, such as women’s, spiritual, or cyclical time...”

Sohail Inayatullah (29)

What if time is more like a spiral, encompassing the old but always adding complexity and evolving the new, or a swirl, simultaneously containing past, present and future? Perhaps the most important thing in this change of age and consciousness is to suspend disbelief, to regain a childlike wonder of the universe and to keep exploring and imagining beyond our fixed notions of time and space. To do this, there is a need to:

- engage with artists, scientists, academics to explore the space between the creative and scientific disciplines
- trust in your own subjectivity and that of others as much as you do in objectivity.

What is certain is that we can no longer continue to 'consume' the future and therefore, freeing up time and the future becomes both a necessity and an opportunity.

“Future historians may note that at the same period that technology acceleration was driving the world to operate on fleeting ‘Internet time’, environmentalists were teaching the world the long-term foresight and responsibility of biosphere time. Just when technology was busy making us smarter, environmentalists began to make us wiser”

Stewart Brand (30)

10 Sense making and making sense

To conclude, we are experiencing a change of age, one in which deeply-held beliefs and behaviors are transforming. People are moving from being passive consumers to active producers of their own lives and lifestyles, and the new ambient technologies are re-enforcing and enabling this as well as offering more context-driven solutions on product, service and system level. Such changes facilitate the re-design of our social industries and even of our future development paradigms.

This paper began by stating the need to open up the future, to engage and interact differently with it in order to drive greater prosperity and wellbeing in a period of such transformation. Linked to this, it suggests that the more forward-looking companies initiate a move towards a socially-led approach. It outlines some of the research and thinking going on in Philips Design to support the above, particularly the approach of Foresight In Design. It asks us to open up our hearts and our minds towards new ways of being and new ways of doing, given that the future of our people and our planet are at risk.

“If we are privileged with power or money or knowledge we have to put it to work, otherwise it atrophies and ultimately corrupts us”

Geoff Mulgan (31)

It suggests implicitly that business can no longer concern itself only with making money and maximizing profits and that, given its talent, resources and knowledge, it needs to take a more pro-active role towards a better future. This in turn means thinking about a different purpose and a different role. And nothing stands still. Business knows this. The orthodoxy of today is the heresy of tomorrow. Sometimes it seems that to challenge market capitalism is to utter heresy. Yet market capitalism was not a gift from above and is no eleventh commandment. It is neither inevitable nor necessarily modern, as some would have us believe. Nor does capitalism stand still, and already we can see through the sustainability movement a process of creative destruction. Sustainability is not tame; it is a radical philosophy that, as with the great religions, asks people to change their lives. Like those religions it is about radical change and transformation. A transformation of the way we think and the way we are, a personal transformation, which is often the hardest transformation of all but one that supports all the others. If we don't change ourselves we can't change the world.

“For the first time ever, our enemies are no longer outside us. We're quite well suited to battles with foreign powers, evil corporations or heartless states. But now we face many challenges where the enemy is us — our desires and our myopias may be what stand in the way of survival”

Geoff Mulgan (31)

This transformation of a worldview, of social models and of more human ways of creating value, is also about a transformation of approaches and practices including new tools, new research and innovation, new leaders, new networks and new partnerships: cross-disciplinary, cross-industry, cross-border and public/private collaborations that will create the industries and markets of the future.

In essence, at the beginning of the 21st century, we have the possibility to enter a new social era, in which an emerging new capitalism transcends market capitalism, the maximization of profits and the cult of the individual. One in which the underlying ethos of sustainability and sustainable development helps to humanize and simplify our lives. It puts people, not technology and not the market, at the center of our future, our thinking and our practice. It means that sense making and making sense of the future lies in understanding how people are evolving, engaging with them on a journey of discovery and exploration, and co-creating and envisaging the future together.

It seems, however, that humankind is capable of anticipating the future but not so good at doing anything about it. Unlike the poor frog, who, when put in cold water boils to death, oblivious of the rising temperature, we are not oblivious but to often continue along the same path anyway! An inclusive approach and a collective engagement in the future and in innovation may help to marry anticipation and action. This is our challenge. The frog is also a symbol of renewal and transformation in mythology and fairy tales. Are we to be the boiled frog or the prince?

If the future is not predictable then it is also about choice and certain choices are just waiting to be made. It's up to us.



“Whatever you can do or dream you can, begin it. Boldness has genius power and magic in it...”

Goethe

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In the twentieth century the future was more elitist. It was primarily a top down concern and, from a company perspective, driven through technology, economics and expertise. However, the emerging meta-themes of mass creativity, social innovation and sustainability are transforming how we think about and how we engage with the future. This book explores this transformation, proposes a more multi-faceted approach to the future and innovation and offers some thoughts around the resulting democratization of the future.



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