

# THE FUTURE OF FITNESS

A White Paper

Suzie Dale, Sue Godinet, Natalie Kearse and Dr Adrian Field



Foreword Acknowledgements Summary and highlights		ij
		iii
		iv
1	Current state of the fitness industry	1
2	Future influences on the fitness industry	4
	Permanent connection	6
•••••	Personalization	6
•••••	Convergence, blurring and blending	7
3	Five fitness niches	1(
	Niche 1: Activity is Not for Me	1(
	Niche 2: Activity for Fitness's Sake	11
	Niche 3: Play Drives Activity	12
	Niche 4: Activity Offers Something More	13
	Niche 5: Beyond Human Activity (post-2030)	14
4	The fitness industry tomorrow	15
	The future of health clubs	15
	The future of careers in the fitness industry	17
5	Conclusion	18
	Continuing the discussion	18
Appendices		19
	The Authors	19
	Methodology	19
	Experts interviewed	20
	Bibliography	20

## THE FUTURE OF FITNESS

A White Paper

#### © 2009 Les Mills International Ltd

This document is subject to a Creative Commons License (Attribution-Noncommercial-No-Derivatives: <a href="http://creativecommons.org/licenses/by-nc-nd/3.0/">http://creativecommons.org/licenses/by-nc-nd/3.0/</a>). Attribution should cite the Future of Fitness White Paper published by Les Mills International Ltd in 2009, with a link to the website <a href="https://www.futureoffitnesswhitepaper.com">www.futureoffitnesswhitepaper.com</a>. Bibliographical references should credit Suzie Dale, Sue Godinet, Natalie Kearse and Dr Adrian Field as authors, and Les Mills International Ltd, Auckland, New Zealand, as the publisher.



By helping people to be fit and active, the fitness industry makes a major contribution to human beings living long, healthy and happy lives.

Despite this, the fitness industry and the talented people who work in it cannot afford to be complacent about their place in the future.

This White Paper explores the trends that may shape human fitness and activity, and their effect on the fitness industry. After hundreds of hours of research and dozens of interviews with experts and 'ordinary folk', the White Paper reveals a range of challenges and opportunities for us to either confront or cultivate.

The intention is to provide new insights to help the fitness industry:

- understand what may happen, so as to guide future decisions
- address risks, rise to challenges and discover opportunities beyond today's known channels and paradigms.

States of uncertainty, some would say, provide the most potent conditions for innovation and creativity. Change, even chaos, is a life-creating force; constancy and sameness lead to atrophy.

The current model asks consumers to fit themselves around a focused, efficient service model — a gym-centric machine. Tomorrow's consumers are likely to be much less compliant! They are less likely to embrace 'fitness through hard work'. They will want fitness to be shaped around them. They will ask our industry to become more peoplecentric.

This White Paper sees trends that are making it more difficult for people to connect. More and more, we are tempted into virtual - that is, false - "realities".

In response to all of these changes, today's mainstream health-club model may soon explode into multiple variations based on new concepts.

I embrace the challenges. Smart businesses will capitalize on the changing demands of articulate consumers.

I am attracted to the idea that health clubs can become more entertaining, social places. Done well, the health club might become something like the corner pub of the 21st century.

Let's provide a strong, grounded connection among people and to the real world. Our industry can help build communities literally from the inside out. We can also lead change by helping consumers adopt tastes that are informed by knowledge and that are linked to good health and wellness outcomes.

The authors of this White Paper offer no definitive recommendations. Rather, the challenge is for all of us who care about the fitness industry to answer for ourselves, and for our organizations, questions like:

- How must our industry **commercial businesses and non-profits** adapt to the changes the fitness industry faces?
- What new products and services can we develop to take advantage of advancing technology? What research and development should we be implementing now to help consumers enhance their wellness — and so that we remain relevant and competitive — in the future?
- What alliances do we need to build to achieve these goals?
- How will we as **fitness industry leaders** prepare for and promote change to help our sector remain relevant and competitive as the landscape shifts?
- How will we as individuals push our boundaries of learning and specialization to meet the ever-increasing needs and demands of our future clientele?
- As people who care about human health and well-being, how can we use our imaginations and influence to help the fitness industry achieve its highest potential?

Tomorrow is full of challenges and opportunities. Today is when our industry must choose its future.

Phillip Mills

Founder, Les Mills International Ltd

#### **ACKNOWLEDGEMENTS**

This White Paper is part of a Nielsen/Synergia project for:

- Les Mills International, the world's largest provider of group-exercise programming and business solutions for the world's gyms and health clubs
- Better By Design, a specialist group within New Zealand Trade and Enterprise, New Zealand's national economic development agency.

Les Mills International's group-exercise programs and supporting management, marketing and instructor training systems are an integrated solution offered in 13,000 health and fitness clubs and enjoyed by more than six million individuals every week. More on Les Mills International can be obtained from <a href="https://www.lesmills.com">www.lesmills.com</a>, or contact Vaughan Schwass, Marketing Manager (<a href="https://www.lesmills.com">www.lesmills.com</a>, or contact Vaughan Schwass, Marketing Manager (<a href="https://www.lesmills.com">www.lesmills.com</a>).

Better by Design's programs are built on the principle that design strategies and processes can be applied to businesses to improve the bottom line. Better by Design is a catalyst that connects ambitious companies with leading business experts and design practitioners. More on Better by Design can be obtained from <a href="https://www.betterbydesign.org.nz">www.betterbydesign.org.nz</a>.

We received information and inspiration from a large number of expert interviews and focus groups. It is not possible to fully acknowledge every person or idea that influenced our research and writing; suffice to say that we are grateful to our many sources for the rich and intriguing picture they painted.

We would like to thank both of our clients, and especially the Les Mills representatives on the project — Phillip Mills, Vaughan Schwass, Guy Needham and Bridget Armstrong — for their encouragement and direction during the project.

Recruitment and fieldwork in San Francisco was facilitated by Jill Olin, Fieldwork San Francisco (<a href="www.fieldwork.com">www.fieldwork.com</a>) and Matty Perkins of Les Mills International. Recruitment and fieldwork in London was facilitated by Nicola Montlake of Fieldforce (<a href="mailto:nicola@fieldforce.co.uk">nicola@fieldforce.co.uk</a>). A huge amount of practical support was provided by Michelle McLemore of Les Mills International.

The published version of the White Paper was conceived and organized by Les Mills International, and was edited by Nikitin Sallee of True Colors Communications in Los Angeles (nikitin@trucol.com).

#### **SUMMARY AND HIGHLIGHTS**

This White Paper – commissioned from The Nielsen Company by Les Mills International and Better by Design – brings together data, expert opinion and informed speculation to form a view of the future of the global fitness industry.

More than a year in the making, this White Paper is the result of a comprehensive literature review, interviews with several dozen thought leaders in the fitness industry and other fields, focus-group sessions and field observation.

A number of **challenging key messages** arise from this White Paper:

- It is not safe to take for granted that solving the growing health problems of ageing, obesity, heart disease and diabetes will provide a robust future for the fitness industry.
- The current ways of offering 'fitness' to consumers face escalating challenges from innovations spanning science, medicine, communications and information technology.
- Within the foreseeable future, the most popular modes of achieving fitness may be almost unrecognizable by today's standards. This White Paper speculates that tomorrow's teenagers may laugh when we recall how we used to 'go to the gym'.
- Even the key contributions of today's fitness industry weight control, physical strength, wellness promotion and beauty enhancement – may be whittled away by technologies that provide easier, quicker and cheaper fixes.

Such outcomes may result not only from the social, health, environmental, business, regulatory and technological trends we can see now, but also from **three future influences** that are converging to shape the fitness industry:

- Permanent connection via the internet is transforming how people do business, socialize and, potentially, manage their health and fitness.
- Personalization is increasingly required by discerning and demanding consumers, and is being made ever more available by advancing technology.
- Convergence, blurring and blending are permanently breaking down and reshaping existing categories of products and services.

This White Paper identifies **five fitness niches** around which tomorrow's health clubs and fitness professionals must adapt their education, skills and services. These niches run the gamut from the dark-side scenario of those who say 'fitness is not for me' (with the poor health and social outcomes that result) to the 'superhumans' that may exist in the post-2030 world.

This White Paper offers no prescriptive solutions. Instead it is put forward as a starting point to explore how the fitness industry can thrive as the very definitions of 'fitness', 'health', 'fitness industry' and 'health clubs' change. The definitive map is yet to be written — by all of us.

# 1 CURRENT STATE OF THE FITNESS INDUSTRY

The fitness industry exists to serve humanity. Fitness, we assert, is an essential component of health, well-being and longevity<sup>1</sup> and the industry's overall mission has been described as 'making the world healthier through regular exercise and fitness promotion'.<sup>2</sup>

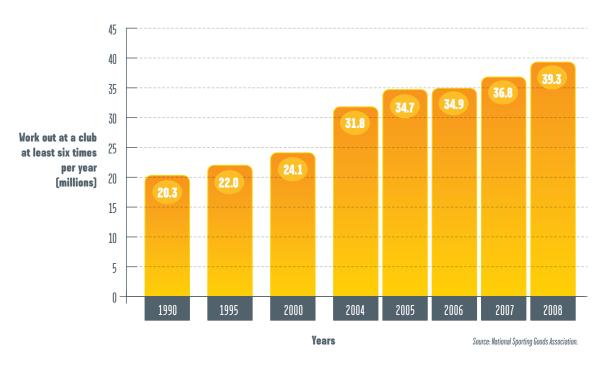
This compelling message has led to impressive growth for the global fitness industry. In the United States, club attendance has grown by more than half in the last 20 years (see Figure 1);<sup>3</sup> clubs' membership revenues in the United Kingdom grew by 3% in the year to March 2009, with growth also measured in both the public and private sectors in overall demand and new facilities.<sup>4</sup>

Yet there are signs that, on its current model, the industry's popularity and contributions to human wellness are not reaching their potential:

- In the developed world, no more than 17% of adults belong to health clubs in any single country, and market penetration of 10.5% is enough to be among the top ten of all countries.<sup>5</sup>
- In the US, a rising proportion of health-club visits are from 'casual' patrons who attend their club less than once every two weeks.<sup>6</sup>
- The health-club industry has significant difficulty keeping the members it has. In the US, about 15 million new memberships are sold each year, but 'for every 15 million members that walk in the industry's front doors, 12 million exit its back doors.' Nearly one in four leave their club within the first year of joining.

Despite the preventive and healing power of fitness, the rates of obesity and obesity-related diseases such as diabetes are climbing.

Figure 1.
U.S. CLUB ATTENDANCE 1990 – 2008



<sup>&</sup>lt;sup>1</sup> See, for example, the benefits noted at IHRSA, The Benefits of Exercise

<sup>&</sup>lt;sup>2</sup> IHRSA website, About Us

<sup>&</sup>lt;sup>3</sup> National Sporting Goods Association, Mt Prospect, IL 60056, USA

<sup>&</sup>lt;sup>4</sup>The Leisure Database Company 2009

<sup>&</sup>lt;sup>5</sup> IHRSA 2009, p 29

<sup>&</sup>lt;sup>6</sup> IHRSA 2008, p 7

<sup>7</sup> IHRSA 2007, p viii

Three key challenges that this White Paper identifies, emerging from research among consumers and global experts, are:

- How do we remain relevant among the 'converted' consumers those who already believe in fitness and are willing to commit time and effort?
- Can we improve our offer to those who enjoy fitness, but who don't like 'going to the gym'?
- How do we keep the industry fresh, relevant and competitive in the decades ahead as populations change, technology and

### 'If you don't like change, you are going to like irrelevance even less.'

- Gen Eric Shinseki
Quoted in Tom Peters 2003

medicine redefine what is possible, and competition increases?

## In many ways, the fitness industry's mission has never been more important:

- The population of the world is ageing, and people tend to be fatter, less active and more subject to chronic illnesses when older. By 2020 in the US alone there will be an extra 14 million people over the age of 65.8
- Childhood obesity in the US has tripled over the last three decades, and similar trends are visible throughout the developed world. This rampant obesity

is directly linked to inactivity.

- The increasing middle classes in fast-growing underdeveloped countries (especially Brazil, Russia, India and China) are shifting to more Western consumption habits and increasingly sedentary lifestyles.
- Governments and insurance companies everywhere are pondering strategies for improving health status and cutting costs, as well as delivering measurable outcomes. Fitness is an obvious solution, especially if fitness providers can better

- demonstrate accountability by measuring the health outcomes that better fitness delivers.
- Consumer demands for natural, holistic health and prevention are utterly compatible with higher levels of physical activity.
- Similarly, those consumers who demand products and services that are ethical
  and environmentally sustainable have values that are closely aligned with those of
  the fitness industry.
- Younger consumers are faced with tempting but sedentary entertainments in the evolving 'always online' world.

#### The fitness industry is responding to such influences. For example:

- The industry is reaching out to the (ageing) 'baby-boomer' population with, for instance, a range of 'senior workout programs' offered by the large 24 Hour Fitness chain;<sup>9</sup> new programming choices such as Silver Sneakers®;<sup>10</sup> and the low-impact BODYVIVE<sup>TM</sup> group-exercise program from Les Mills.<sup>11</sup>
- Formal linkages between health services and the fitness industry are emerging
  in the UK. Local programs include advice and management of overweight
  and obesity; regular sessions providing physical activity, dietary advice and
  psychological support; and tailored programs for morbidly obese people.
  Evaluations have found sustained physical activity and weight loss, as well as
  increases in self-esteem and confidence.<sup>12</sup>
- In the UK, more fitness and health services are being co-located, bringing together diverse services like health centres, family planning and midwifery clinics, gyms, swimming pools and sports studios.
- Medical fitness centres are growing in the US, bringing together health and
  fitness professionals and targeting services to ageing populations and people
  with chronic diseases. In 2007, a certification program was launched for
  benchmarking these centres' services and programs.<sup>13</sup>

<sup>8</sup> IHRSA 2008, p.8

<sup>9 24</sup> Hour Fitness website

<sup>10</sup> Silver Sneakers website

<sup>&</sup>lt;sup>11</sup> Les Mills International website

<sup>12</sup> Wanless 2004

<sup>13</sup> Medical Fitness Association 2008

- A 'green health-club' movement is gaining momentum globally including commercially viable technologies and practices. (Equally, some 'green' alternatives, such as parents' fitness groups in the park, are low-tech options that challenge the current health-club model.)
- Innovative technologies are incorporating simulated realities into traditional exercise (interactive treadmills and bikes, for instance) and new ways of exercising (such as the Wii fitness games).
- 'Green prescription' programs are emerging, in which doctors refer patients
  to fitness providers for a fixed period of fitness training. In New Zealand, this
  approach has been found to be as cost-effective as many prescription drugs.<sup>14</sup>

Yet it remains an open question whether the fitness industry is responding quickly and broadly enough to the change that is under way.

Dr Tim Anstiss, a UK-based medical doctor who integrates fitness strategies into his practice, believes a step change is needed:

The current fitness industry is about high-energy, beautiful people having fun. Yet the number of members who actually turn up are low, service standards are low, and there is still a product mentality. The industry needs to find new ways to keep people active and deliver health improvements in more affordable and accessible ways. There needs to be a mindset change.<sup>15</sup>

As management expert Tom Peters has said:

Put simply, it's a time to re-imagine positively everything... I call such re-imaginings the 'foremost task and responsibility' of this generation.<sup>16</sup>

#### THE FUTURE IS NOW

In its January 11, 2009 edition, *Time* magazine discussed 'designer babies' and the current ability to select the baby's sex. The article noted that in a decade or two we may be able to select 'an enormous range of attributes such as... the hair and eye type'. A few weeks later the Fertility Institutes in Los Angeles announced that it would soon let parents select baby's eye color — not in a decade, but almost immediately.

While this has caused an ethical storm,<sup>17</sup> the point is that the acceleration in the ability to design and re-create the body is happening now. How soon before we have designer muscles or drugs to eliminate obesity? Where does the fitness industry's 'hard work' solution fit in that new world?

It is not just that the world is changing: it is that the acceleration is exponential. Arguably, we are experiencing hyper-change.

It may be fatal to assume that minor adjustments to current business models will keep the fitness industry abreast of changing times. Other industries (health insurance and health delivery, for example) are already moving. So are government regulators.

The future will, of course, be decided by human choices and action, by unforeseeable events, and by trends and technologies that are unimaginable today.

What is clear is that many opposing outlooks and lifestyles will co-exist and overlap, requiring the fitness industry to offer a range of solutions to meet a plethora of new and ever-evolving consumer demands.

Almost every assumption we make today may turn out differently than we expect. Yet assuming no change, or even minimal change, is also a false premise.

<sup>&</sup>lt;sup>14</sup> Ministry of Health 2004

<sup>&</sup>lt;sup>15</sup> Dr Tim Anstiss - interview with The Nielsen Company, 2008

<sup>16</sup> Peters 2003

<sup>&</sup>lt;sup>17</sup> Sherwell 2009

# 2 FUTURE INFLUENCES ON THE FITNESS INDUSTRY

Even most of the fitness industry's current consumers do not treat fitness as an end unto itself.

A core theme from the research for this White Paper is that, for most people, exercise is a means to other goals – health, longevity, beauty, spirituality and sociability chief among them.

#### Crucially:

- Physical activity is only one of many ways to achieve those ends.
- The current 'fitness-as-hard-work solution' is popular among only a minority of adults. Already there is competition from, for example, recreational sport outside of gyms. Our research shows that there is also hidden demand from people who are interested in fitness (or at least the sort of wellness that comes from being fit), but who are not interested in gyms.
- Consumers increasingly have many other ways of achieving the benefits of
  what we now call 'fitness'. Science, technology, medicine, surgery, clothing and
  entertainment already provide cost-effective, low-effort, immediate gratification of
  those ends, and the pace of new offerings is accelerating.

The research for this White Paper has identified five 'macro trends' that are likely to shape the fitness industry (and the careers within it) over the next few decades (as depicted in Figure 1). In summary, these are:

- Society: Demographic changes are increasing the proportion of older (and, over time, very old) people; technology is blurring distinctions between the real and the virtual, the isolated and the social, and what is a product and what is a service; middle classes with Western-style tastes and aspirations are arising quickly in developing nations; immediate gratification is increasingly sought and delivered.
- The environment: Consumers and governments are putting higher value on more sustainable, energy-efficient practices at all levels; these are likely to be enforced both through regulation and consumer demand.

- Health: Younger people in many countries are becoming increasingly inactive and
  obese (the so-called 'Gen XL'); older populations and cures for acute illnesses may
  lead to an 'age of chronic diseases'; wellness and illness prevention will become a
  greater focus; over time, a radical extension of life expectancy is possible.
- Regulation and business: Consumers, governments and insurers will demand
  greater accountability for results; governments and insurers may subsidize or
  mandate more attention to preventing illness and disease; the proportion of locally
  focused and delivered services is likely to increase, both through regulation (for
  example, urban planning) and as businesses respond to customers' values.
- Technology: Better communication will enable an 'always connected' society for most people; medicine and science will enable new ways to achieve wellness and fitness; nanotechnology and computing power are likely to mimic and then transform human brainpower.

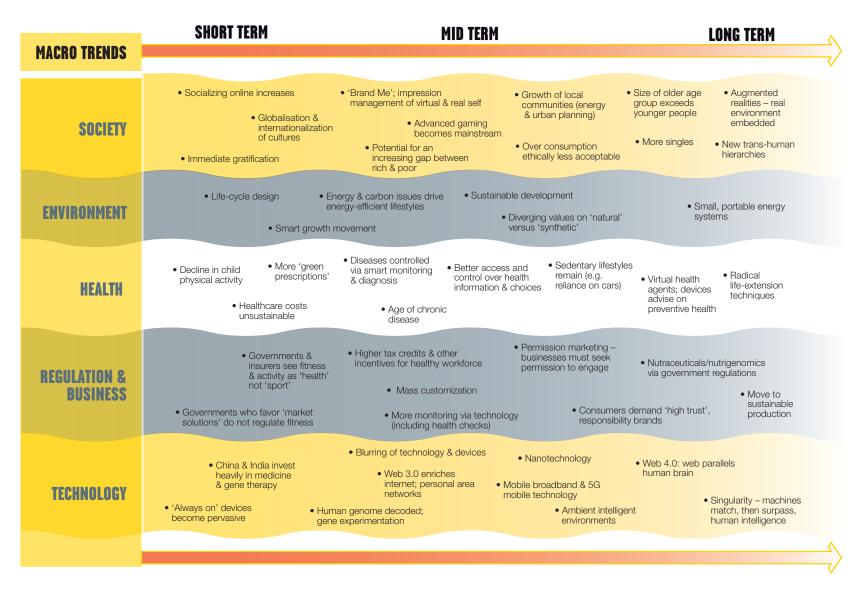
Some of the influences are known with relative certainty: the ever-ageing population between now and 2050 is a demographic fact. Others are more speculative — whether, for example, today's generation of young people will have a shorter life-span or lower quality of life than their parents.

The research for this White Paper has also identified three broad drivers of change that intersect the five 'macro trends' and are likely to shape the fitness industry in the decades to come:

- 'Permanent connection'
- 'Personalization'
- 'Convergence, blurring and blending'.

These drivers support the broad themes of this research, suggesting that burgeoning numbers of people either don't subscribe to the health-club ethos, don't have the habit of fitness or cannot afford the investment; and that, meanwhile, it is likely that technology and science will provide many of the health, beauty and emotional benefits currently obtained through physical activity.

Figure 2.
INFLUENCES ON FITNESS AND ACTIVITY



This 'map' outlines potential influences on the fitness industry within the five 'macro trends' identified in research for this White Paper. The events and innovations on the left-hand side of each stream are either current or very likely; they become more speculative towards the right (long-term side) of the diagram.

#### PERMANENT CONNECTION

As broadband connections spread worldwide – together with ever-cheaper, more powerful and more mobile personal computers and software – the internet is likely to be pervasive in our everyday lives.

Two developments are likely to coincide:

- a future where people are permanently networked and connected, with devices 'always on'
- a future where online and offline realities are likely to mesh, blur and integrate.

As one forward-looking multimedia expert foresees it:

What at the moment seems a series of semi-connected online interactions will become continuous and omnipresent, following you as you go about your daily life. Instead of linking through a local area network or a wide area network, your body communicates through a 'personal area network': all of the devices and sensors in your pockets and about your person continually chat to each other.

You won't have to think about having a device as the central repository of all your information. When every device can talk to the internet, then all of your personal information lives on the internet, and you're connected all the time rather than when you get to a phone or PC and choose to hook up. Ultimately it might be possible through nanotechnology to wire communication devices directly into the brain. 18

This 'always on' world likely foreshadows a revolution in the nature of community engagement. The emerging social networks are not simply about people using chat rooms to talk about themselves and their interests, but to actively participate, transfer knowledge and share information to advance common agendas.

As time passes, an increasing proportion of the world's population will be 'digital natives' who never knew life without the internet, who will be always connected and 'location enabled'.

Increasingly, consumers are likely to look for businesses and professionals who can make their 'active' experiences fit seamlessly into their connected lives:

- 'Digital natives' will be multi-taskers who immerse themselves in a virtual world, but who do not necessarily disappear into it.
- As they dip into, out of and between their physical and virtual realities, they will
  integrate fitness into their other activities, not see exercise as a 'time out'. They will
  want the whole range of interactive, digital tools whatever these become in the
  future available while working out.
- The digital universe will be their natural home. Interactivity on the internet will yield feelings of safety and security — almost as 'if it's not online, then it must not be real'. All their devices will talk to each other, and to all the devices of their friends and colleagues. Information will be less credible — just spam — if they can't shape or respond to it.
- Already, entertainment is the key driver behind 'exergaming', even when the
  object is to 'amuse and entertain me' with exercise as a (sometimes unintended)
  by-product. Technology is making such games more interactive, enabling online
  social physical activity that will challenge current fitness models.
- Some may choose to make exercise the one time of the day they go off-line but they will want this to be a choice, not a sacrifice they must make for the sake of fitness.

#### PERSONALIZATION

New technologies hold huge implications for the fitness industry in terms of the consumer's experience and, more importantly, who is in charge of the experience. It is no exaggeration to say that many consumers will expect all their experiences, including fitness, to deliver 'what I want, when I want it, and where I want it — oh, and I may want it differently tomorrow.'

These consumers may, for example, expect fitness experiences that are customized for each person's age, gender, location, spending power and personal preferences.

Technology is likely to empower consumers to choose from a range of fitness options to supplement (or perhaps replace) social and club-based options. For example, a 'virtual personal trainer' might lead your workout while you're at home alone; you might

'Customization is the key word for the new world... Once the technology is there, we will have products customized to the individual... individual health diagnosis, immediate feedback, exercise programs, medical prescriptions all linked together.'

- Keith Hanna Interview with The Nielsen Company be able to link from home to your gym's group-fitness experience; you might get your exercise while appearing in a virtual 'game show' with your friends; or maybe you'll go walking in the park and experience it as a virtual science-fiction battle.

Such options are foreshadowed in product customization and personalized services, including in the fitness industry:

- 'Mass customization' is being adopted by leading fitness companies. Brands such as Nike and adidas enable customers to be co-designers by, for example, matching their feet to an existing library of insoles and soles, and choosing colours and other personalizations.<sup>19</sup>
- Customized sports products are likely to become increasingly available via rapid
  manufacture of personalized sports apparel and sports equipment, such as helmets,
  racquets, gloves and bicycles.<sup>20</sup> Variations on this theme include online database
  engines that customize fitness training programs based on an individual's profile;<sup>21</sup>
  and a system that displays live heart-rate data so the leader of a group-exercise
  session can offer one-on-one guidance in real time.<sup>22</sup>

- Niche markets for customized products and services enable small to mediumsized companies to compete in sub-sectors that are 'too small' for the dominant multi-nationals.<sup>23</sup> Such organizations already exist across a range of areas, including cardio equipment, functional fitness equipment, and corporate health and wellness assessment tools.<sup>24</sup>
- Already there is virtual-fitness software that predicts how an individual will respond
  to a specific training and dietary regime. Other future fitness products that have
  been forecast include an LCD 'mirror' that inputs drinking, eating and exercise
  habits into the computer to make an image of how you will look in five, ten and
  15 years on current lifestyles; and a garment that delivers vitamins to all parts of
  the body.<sup>25</sup>

Tomorrow's consumers are likely to demand the ability to make 'value'-conscious decisions in both senses of the word:

- Tighter incomes and more choice will put continuing pressure on value-for-money propositions.
- Socially conscious consumers will expect the products they buy and the services
  they receive to conform with their personal values especially their ethical
  sensibilities, such as their desire for environmental sustainability.

#### CONVERGENCE, BLURRING AND BLENDING

In gyms around the world, the boundaries between 'fitness' and other services are already becoming indistinct.

What, for example, are a gym's juice bar, spa, clothing boutique and beauty salon if not adjuncts to the club's fitness offerings? Each appeals to the needs and values of fitness consumers and, to some extent, are alternatives to the fitness-as-hard-work model.

<sup>&</sup>lt;sup>19</sup> Berger & Piller 2003; Piller 2008

<sup>&</sup>lt;sup>20</sup> Hanna & Subic 2008

<sup>&</sup>lt;sup>21</sup> See, for example, Hyperstrike website

<sup>&</sup>lt;sup>22</sup> See, for example, Polar USA website

<sup>&</sup>lt;sup>23</sup> Hanna & Subic 2008

<sup>&</sup>lt;sup>24</sup> See, for example, Fitness Management 2006

<sup>&</sup>lt;sup>25</sup> Kiaer 2008

In the immediate future, science, technology and new business models present new challenges — and new opportunities — for the current fitness model and the individuals who work in the fitness industry. In the extreme, 'entertainment' or 'spirituality' may lie at the

'In five years' time I might be annoyed if my shoes don't contact my chiropractor to say I need to be adjusted because my gait is clearly off.'

- Che Tamahori Interview with The Nielsen Company heart of new offerings; 'fitness programs' *per se* may become niche products, or be offered with wider packages such as a doctor's wellness plan.

#### Medicine

It is not safe to take for granted that solving the growing health problems of ageing, obesity, heart disease and diabetes will provide a robust future for the fitness industry.

First, an existing source of these problems is that current fitness options are unappealing to many of those who, arguably, need it most. How many will suddenly wake up and say 'Oh, yeah, I now

subscribe to the fitness-as-hard-work ethic' when they haven't done so before?

Second, and just as significantly, within ten years fitness and exercise (and even nutrition and lifestyle) are unlikely to be the only or best solutions to obesity, high cholesterol, diabetes and so on. For many of these, a pill or simple and safe surgery may 'cure' the problem more quickly and with less effort from the consumer. Research is currently under way to develop medications to increase muscle mass<sup>26</sup> and reduce fat, <sup>27</sup> for example.

Where will the fitness-as-hard-work ethic be if a pill is invented that creates muscle mass and definition with little or no exercise?

#### Gaming

Recent industry-led research<sup>28</sup> shows that gaming is already mainstream entertainment and is no longer the preserve of introverts:

- 68% of American households play computer or video games.
- The average game player is 35 years old and has been playing for 12 years.
- A quarter of Americans over the age of 50 play video games up from 9% in 1999.
- Women aged 18 or older are a much higher proportion of the game-playing population (34%) than boys aged 17 or younger (18%).
- In the US, game software sales grew 22.9% in 2008 to \$11.7 billion more than four times higher than in 1996.

The next developments in 'gaming' may directly challenge the current definitions and boundaries of fitness. Two innovations appear important for the fitness industry:

- 'Body mapping' and 'body feedback' technologies are enabling advanced interactions with others. Devices such as the Wii platform, for example, may in the future be based on the individual's whole body, not the electronic stick the person is holding; Microsoft has recently unveiled a prototype of controller-free gaming.<sup>29</sup> Such innovations may enable the game to respond to you uniquely as it learns your moves, instead of acting according to its pre-programming. New software might also provide feedback that teaches players how to correct their techniques.
- Virtual reality' technology is in its infancy. In the foreseeable future the immersive digital experience will be delivered in simpler, more interactive and more realistic forms than today's helmets and bodysuits.

It is easy to see that, in this world, gaming is not mainly for the introverted or the antisocial. Instead, it becomes an active and socially engaged activity and shifts fitness closer to entertainment.

#### Nanotechnology

The growth of nanotechnology — innovation at the molecular level — will accelerate these changes.

<sup>&</sup>lt;sup>26</sup> Acceleron Pharma, Inc. 2007

<sup>&</sup>lt;sup>27</sup> Bio-Medicine website 2007

<sup>&</sup>lt;sup>28</sup> Entertainment Software Association 2009

<sup>&</sup>lt;sup>29</sup> Beaumont 2009

In sooner than 30 years we will have computers with the power of the human brain, but as small as a rice particle. Potentially we will be embedding them in walls, in ourselves. This level of computer intelligence will create disruptive change.

Nanotechnology will have a huge range of micro applications — very small computers and sensors that can constantly regulate and monitor the body from diabetes to heart rates and so forth. These may resemble the monitor Bones had in Star Trek, which could immediately diagnose blood sugars, heart rates — all types of diagnostic capabilities.<sup>30</sup>

#### Beauty and fashion

Signs are also emerging of increasing competition from - or potential synergies with - sectors that have previously been considered largely separate from the fitness industry.

For example, the beauty industry is in many respects at the forefront of consumer and societal changes. Ultimately, the beauty and fashion industries may advance to the point that no-effort techniques provide physical improvement through instant gratification, rather than hard work.

BOTOX®, liposuction and plastic surgery are just the beginning. Innovations that are brand new, or anticipated for the near future, include:

- skincare products that match the effects of BOTOX® but make invasive procedures redundant
- cosmetic surgery by 'fat grafting' (injections of the patient's own body fat) and even stem cells made from the patient's own fat<sup>31</sup>
- creams that protect cells from damage and deterioration, and so maintain healthy, youthful skin
- products with human growth factors to aid wound-healing and repair UV damage
- exploiting chemical pathways to arrest long-term movement in facial bones, thus slowing down the appearance of ageing.<sup>32</sup>

#### New foods

Food production is joining the high-tech movement in ways that are likely to challenge and overlap with the fitness industry. Divergent approaches are emerging:

- 'Functional foods' include nutritional additives to achieve claimed health benefits.
   For example, some white bread is now marketed as having a high-fiber content despite being highly processed; manufacturers are claiming new performance benefits from the latest sports and energy drinks (enhanced with vitamins, for example).
- 'Nutraceuticals' are food extracts that are believed to have a medicinal effect on human health. Examples include the red grape extract resveratrol<sup>33</sup> (antioxidant) and isoflavanoids (used to preserve heart health).<sup>34</sup>
- The 'slow food' movement shifts away from convenience foods and towards more 'natural', seasonally based consumption.

By emphasizing simple, natural solutions, the slow-food movement sits in stark contrast to the research- and science-based approach of functional foods and nutraceuticals.

For the fitness industry, these perspectives on food give insight into conflicting consumer preferences: 'smart food' people seek the means to personal ends using the best technology available; 'slow food' people seek experiences that reflect their place in the natural world.<sup>35</sup>

<sup>30</sup> Keith Hanna, interview with The Nielsen Company, 2008

<sup>31</sup> Rodriguez 2009 and Schwartz 2009

<sup>32</sup> Hancock 2008

<sup>33</sup> Savouret & Quesne 2002

<sup>34</sup> Belinky et al 1998

<sup>35</sup> Kjaer 2008



#### FIVE FITNESS NICHES

The research by The Nielsen Company for this White Paper reveals five likely fitness and health niches for the future.

All five exist to some extent today, and each will persist into the future; but changing tastes, demographics and technology will alter their relative importance.

'I find health clubs ... mindnumbingly boring. And I just look at the time and I think "Am I done?" – and I have done 18 calories, and that is not even half a cracker.'

- A 'fitness struggler' in a UK focus group Interview with The Nielsen Company

#### Niche 1: Activity is Not for Me

This is the dark side — consumers who rarely exercise or move for results, and who reject active experiences that require effort.

As populations age and obesity grows, the number of consumers in this group is likely to increase. Their health status is likely to decline even further, and attract the efforts of governments and the health-insurance industry.

Based on current performance, the fitness industry faces an enormous challenge in appealing to this group. Any decline in living standards and economic growth would make it even harder to reach this group as discretionary spending shrinks:

The big challenge is improving broader population fitness — motivating them to stay active; integrating fitness into their daily lives; driving behavioural change by having instructors move from experts to partnerships. That implies better-trained professionals who are focused on long-term behavioural change, not on exercise facilities.<sup>36</sup>

Beyond the fitness industry's traditional markets, there will continue to be a large global 'underclass' — billions of people in underdeveloped countries who struggle for life's basics, and for whom organized, commercial 'fitness' is an unimaginable luxury.

'I think you will see organizations (and the rest of life) trying to build in ways of staying fit while we do our daily stuff – redesigning work flows, changing building design – so that fitness once again becomes built in, not bolted on, to life.

In this scenario the fitness industry would have new roles to play as designers of workplaces, schools and transport, and as coaches helping people get fit by doing what they have to do (and want to do) anyway.'

- Dr Peter Saul Interview with The Nielsen Company

#### Niche 2: Activity for Fitness's Sake

This niche is closest to the offering of today's fitness industry, where consumers make fitness part of their lives. They seek an experience that is functional and that meets their personal goals — weight control, arthritis, stress reduction, improving specific body parts, building sport or lifestyle skills, or achieving life-stage goals like reducing the effects of ageing.

Holding on to these existing consumers may not be easy. This group will expect their fitness regime to evolve with their increasingly 'wired' and technologically enabled lifestyles.

These consumers are likely to:

- seek to be active and fit when they want to and where they need it anywhere, anytime, at work, at home and while mobile.
- seek increasingly skilled professionals to meet their needs, reinforced by governments and insurers, who will look to the fitness industry for greater accountability for its outcomes.

'I can imagine the development of upmarket fitness gaming centres where you can work out through playing games with other people – running races together, two people playing on a virtual football team – all without needing to bring any equipment.'

- Linden Dale Gander Interview with The Nielsen Company

#### Niche 3: Play Drives Activity

In the relatively near future, fitness offerings will evolve strongly into this niche. The motivation here is having an enjoyable experience, with movement and exercise as (possibly unconscious) by-products.

This is a marked shift from the traditional 'hard work' approach to fitness, and is likely to grow in two distinct areas, both appealing to younger consumers:

- Blends of game, sport and dance will offer fitness and activity that are driven by fun, pleasure and sociability not by effort and hard work.
- 'Exergaming' consumers will seek fitness and activity as a game driven by enjoyment. Technology will evolve this segment into 'exertainment' with rich sensory experiences, and eventually virtual realities that involve movement, social networks, escapism and new experiences.

'We have lots and lots of people who are somewhat isolated, and the question is "where do they go for a community experience?" The health club could become a place that nurtures community in a much broader sense, and it hasn't done that yet.'

Will Phillips
 Interview with The Nielsen Company

#### Niche 4: Activity Offers Something More

Many successful fitness-industry professionals will probably expand their offering into this niche. This aspirational segment is emerging now, and is likely to grow with consumers' insistence on living out their values, and as science and technology make it cheaper to achieve such intangible goals.

These consumers are active as part of achieving a better quality of life — with 'quality' broadly and richly defined.

Motivations in this niche may include:

- 'a better, healthier life', in which a premium is placed on physical health and life extension
- 'sociability', in which people seek communication, connection, relationships and shared experiences, no doubt shaped by continuing evolution of communication technologies
- 'the search for meaning', in which people place emotional, social and spiritual
  integrity at the core of their beings possibly through low-tech solutions
  (returning to nature, opting out or disconnecting) or through new techniques
  (proactive medication, for example).

'Each of us seeks to become a "better human" in a variety of ways. And for some people, more consumerist pursuits hold the key to self-improvement: working out in the gym, wearing makeup, buying new clothes or indulging in a spot of cosmetic surgery.'

'But now a new set of possibilities is opening up. Advances in biotechnology, neuroscience, computing and nanotechnology mean that we are in the early stages of a period of huge technological potential. Within the next 30 years, it may become commonplace to alter the genetic make-up of our children, to insert artificial implants into our bodies, or to radically extend life expectancy.'

- James Wilsdon & Paul Miller

#### Niche 5: Beyond Human Activity (post-2030)

Over the longer term, advances may make people and technology so interdependent that they transform the experience of being human — with effects on the fitness industry that are difficult to anticipate. Such speculative notions 'have moved from science fiction to at least the margins of more serious scientific discussion.' 37

A number of scenarios seem possible:

- 'Superior humans' emerge as science creates stronger, fitter, faster people with radically longer lives.
- 'Transform me' is a phase where technological advances improve human physical capacity and appearance. This might both result from and lead to new forms of physical activities.
- 'Blended realities' enable people to use the online world to augment the real world and achieve enhanced lives.
- An 'unenhanced underclass' may emerge that reinforces existing hierarchies and creates new ones as some people are unable to participate in the enhancements available to others.
- In an 'earth system changes' scenario, humans must adapt to more extreme climates — hotter, colder, wetter or drier than today. These extremes may restrict the ability to consume the fitness activities we enjoy today, and might lead to new activities becoming widespread.

An important aspect of these 'beyond human activity' scenarios is that their projected time frames are becoming increasingly closer. For example, 'singularity' — the point when computer computation power outweighs human capability — was once predicted to arrive in about the year 2050, but this forecast has now been revised to nearer 2030 and may represent 'a rupture in the fabric of human history'.38

<sup>37</sup> James Wilsdon, interview with The Nielsen Company, 2008

<sup>38</sup> Ray Kurzweil 1999 and 2001

The compelling implication of this study is that the fitness industry faces an unprecedented period of change, including challenges presented by new ways to achieve fitness.

'The word "fitness" needs to be reassessed. "Fitness" feels dry and like hard work. Increasingly people want to "bump into the fun" in their town; they want to "bump into getting fit". The idea of "going to the gym" three times a week for a work-out will fade out. Let's wrap an experience around fitness; make it compelling, connected to a bigger purpose, linked to creativity and the mind.'

- Charles Landry
Interview with The Nielsen Company

Yet, simultaneously, abundant opportunities arise from the potential to appeal to whole new groups of consumers who are not attracted by the current fitness model.

The imperative is to look ahead, innovate and change — to 're-imagine' how our industry can remain consumer-centric and relevant.

It is well known that the internet has transformed the newspaper business by creating new channels for gathering and disseminating news. The business models of all traditional media are threatened as everyone gains the ability to publish information.

Similar challenges are likely to envelop the fitness industry in the very near future as changing expectations and new ways of doing things transform the very meaning of 'fitness'.

One can foresee a global fitness industry that thrives through:

- helping people become fit as a secondary consequence of activity they undertake for companionship, meaning or entertainment
- moving away from the model of a one-size-fits-all gym at a central location
- developing highly customized fitness products and experiences that meet consumers' demands for exercise, athletic clothing and fitness advice 'whatever way I want them'

- offering fitness products and services that link people across vast distances in multiple locations simultaneously
- satisfying consumers who place a high value on and pay high rewards to individuals and companies who can help them synthesize the wide array of choices that become available, and maximize their benefit for each individual.

#### The future of health clubs

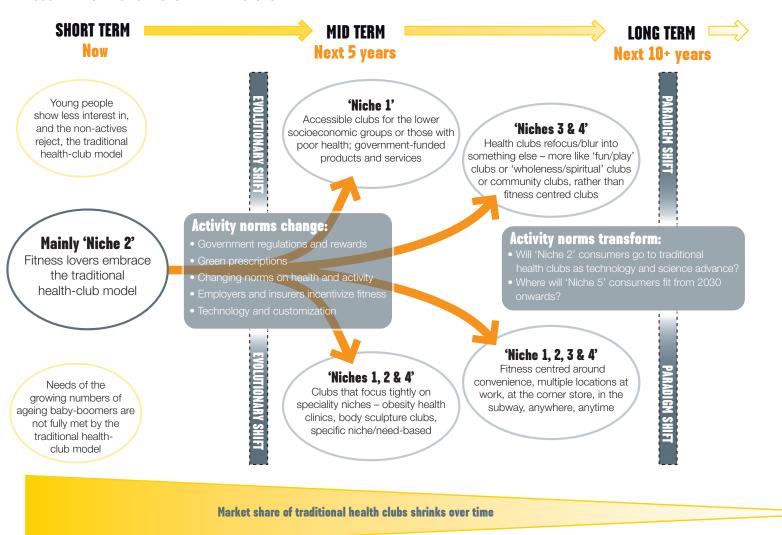
Fitness in the future may be less about a channel or location (like a gym) and more about a group of people with common principles and goals. Would gyms and health clubs be important — or even relevant — in that world?

Health-club lovers will no doubt still exist and frequent their preferred habitat. But significant evolution — or mandatory attendance imposed by regulators and insurance companies — may be required in order for 'health clubs' resembling those of today to thrive.

We are likely to see 'merging' and 'blurring' of what constitutes a gym and health club, with new models that vary according to the type of space and technology at their core. For example:

- The emerging 'exertainment' health clubs, which more closely resemble theme parks than clubs with free weights and treadmills, may become more common.<sup>39</sup>
- There may be specialized centres or spaces within health clubs that cater to specific life-stages and needs, such as active ageing, teens, cyclists, asthma, sexual health, menopause or 'family time'.
- Clubs may become a key partner in working with healthy and at-risk populations to
  promote and sustain wellness. Given their regular access to the consumer, fitness
  professionals might become a central hub in the health information flow, feeding
  health-monitoring information and insights to healthcare providers.

Figure 3.
POSSIBLE MODELS FOR FUTURE HEALTH CLUBS



Research for this White Paper revealed changes that may occur as the traditional healthclub model evolves. Initially, as is already happening today, many of the inactive and younger populations will reject the traditional fitness model, as will 'baby-boomers' who perceive their ageing physical needs not being met. Over the next five years an explosion into other fitness-club models is likely – both to take advantage of new technology and to meet consumer needs and demands. Over the longer term, still more innovation in other fields is likely to further challenge the health-club model, yet also provide new opportunities for meeting consumers' expectations.

 High-tech health clubs may offer 'body mapping' and 'body feedback' technologies both for interactive gaming and to enhance performance and technique. Managing this technology — and helping consumers benefit from it — may be a new specialty for the fitness professionals of the future.

'The compact city is an ideal. It has health benefits as it encourages people to walk and cycle much more local shops, local facilities and parks, people can walk and feel safe. Good urbanization is important, with people getting together and enjoying themselves, local health and exercise places where people drop in, have coffee, and exercise...'

- Prof. Mike Jenks Interview with The Nielsen Company

- Other health clubs may revert to low-tech experiences akin to the 'village square' — providing the heart of the community with the focus on wellness and giving greater meaning to people.
- Barriers may break down as 'health clubs' shift
  into the workplace and residential spaces, or grow
  into online or mobile spaces. These options would
  let consumers 'graze' at fitness more easily than
  travelling to a traditional health club.
- New models of urban development may lead to new designs and construction of fitness spaces.
   There may be a new generation of communitybased fitness centres within easy walking distance or well connected to public transport. Technology and communications may also challenge the growth of purpose-built fitness spaces, and instead enable linked home and work environments to become fitness venues.

The challenge is for health clubs to lead innovation and consumer tastes, thereby improving both their market positioning and their contribution to people's welfare.

#### The future of careers in the fitness industry

Just like businesses, individuals who want to work and thrive in tomorrow's fitness industry will have to plan for and adapt to new technology and other innovations.

In the future, consumers seem almost certain to seek ever-higher levels of fitness training and professionalism to meet their needs, reinforced by governments who look to the fitness industry for greater accountability for its outcomes.

That implies that higher and more specialized levels of education, training and experience will be increasingly valued:

You will walk into a club and your personal trainer will be college educated with three to four certifications.<sup>40</sup>

Motivation and communication will still be important — maybe still the most important — attributes of a fitness professional. Yet they seem most likely to prosper when they also understand, and help consumers integrate with, new ways of delivering health, entertainment and sociability — not just 'exercise' as it is known today. For example:

- As architects and designers look to 'build fitness in' to everyday experiences, they
  will rely on the expertise of those who know the most about the physiology and
  psychology of fitness.
- If health clubs increasingly specialize concentrating on 'exertainment' or the needs
  of particular populations, for instance then they would hire professionals with the
  relevant specialist skills.

As a result, whole new fitness careers may develop, just as it was impossible to imagine 'airline pilot' as a career in the horse-and-buggy days. For example, a new higher-education curriculum might cover the science, technology, sociology and practical application of exergaming, exertainment and other virtual activity programs.

Significant changes are likely to include:

- tighter regulation and monitoring of fitness professionals, driving the need for accreditation and education services for health clubs and their staff
- rising demand for fitness professionals who can deliver multiple experiences and take a holistic view of individual consumers, including 'life coaches' who become simultaneously a counsellor, personal trainer and nutritionist in one
- opportunities to learn and train for the new models of 'fitness' blends of sports, entertainment and games, for example as technology and science replicate the results and 'endorphin buzz' from physical exercise.



### Tomorrow's teenagers might laugh when we recall how we used to 'go to the gym'.

When consumers can raise their heart rate in their living rooms or offices with an engaging, energetic and sociable online experience, 'fitness' will less often be defined by travelling to the gym to pump iron. If a pill or cheap, safe plastic surgery can maintain health and restore beauty, then 'fitness' morphs into a new definition altogether.

Tweaks to existing models are unlikely to match the pace of transformational change. If we are complacent (or even just slow) our industry may become a historical anecdote of the 20th century.

Both for business and for individuals working in the industry, the three key challenges and opportunities appear to be:

- staying relevant among the current crop of 'converted' consumers who already commit time and effort to fitness
- improving our offer to those who enjoy fitness, but who don't like 'going to the gym'
- keeping the industry fresh, relevant and competitive in the face of changing demographics, technology, medicine and competition.

The fitness industry's challenge is to enthusiastically embrace the unfolding opportunities, so that it can continue to make a meaningful contribution to human wellness.

#### Continuing the discussion

Les Mills International is hosting a moderated, online Future of Fitness discussion thread to extend the debate and evolve the ideas in this White Paper. The online discussion establishes a Future of Fitness community that includes:

- 'conversations starters' by industry leaders and thinkers
- a forum where you can respond to the conversation starters, or begin your own thread
- updates on wider industry responses to this White Paper.

Les Mills International intends to keep this on-line discussion going until the middle of 2010, at least.

Please add your insight, contribute your knowledge and resources, and join interesting projects that develop on the Future of Fitness discussion board.

You'll find the Future of Fitness discussion at <a href="www.futureoffitnesswhitepaper.com">www.futureoffitnesswhitepaper.com</a>.



#### THE AUTHORS

#### Nielsen Consumer Research

The Nielsen Company is a global organization that offers customized research services that provide clients with techniques to examine trends and understand the forces that influence consumers. Nielsen's insights enable clients to address specific future marketing opportunities and issues, and create the best possible framework for successful decision-making.

All Nielsen research is conducted and delivered by a team of research and client service professionals with specialized industry, business-issue or methodological expertise. Besides providing market data, Nielsen translates the data into actionable market and business insights.

Nielsen's operations span more than 100 countries, headquartered in New York with major regional business centres in Schaumburg, Illinois; Wavre, Belgium; Hong Kong; Sydney, Australia; Buenos Aires, Argentina; and Nicosia, Cyprus. More about The Nielsen Company can be obtained from www.nielsen.com.

Suzie Dale is Director of Qualitative Research at Nielsen New Zealand. She has been working in research since the late 1980s and has been with Nielsen New Zealand since 2004. Suzie has led many international branding and new product development projects for public and private organizations. Sue Godinet is a senior qualitative researcher at Nielsen New Zealand. She has 15 years' qualitative research experience, focusing on commercial and social marketing, including health and environmental social marketing. Natalie Kearse is a senior member of the Nielsen qualitative team who has worked across a number of service-based organizations, including international branding and new product development.

#### Synergia

Synergia is a New Zealand-based research, design and evaluation company that diagnoses and solves complex strategic and operational problems across the public and private sectors. The company has a core staff working with a network of senior clinical, academic, technical and cultural experts.

As the company's name implies, Synergia employs the concepts of joint work and cooperative action, a joining of energies and synthesis beyond the reach of individuals acting in isolation — the creation of effective, intentional, combined systems of action.

More on Synergia can be obtained from www.synergia.co.nz.

Dr Adrian Field is a senior consultant at Synergia. Adrian's experience spans research, policy, strategy and program design. His work at Synergia draws together stakeholder engagement and research across diverse projects including health impact assessment, literature reviews, qualitative and quantitative analysis, and strategic development.

#### METHODOLOGY

This White Paper's assessment of future scenarios, challenges and opportunities for the fitness industry was informed by an international research study commissioned by Les Mills International and Better by Design.

The research was undertaken by
The Nielsen Company. It deliberately
explored beyond the fitness domain,
recruiting experts from diverse fields that
shape future trends, including technology,
future thinking, business and health. The
research also harnessed the outlooks of
consumers, including those who are active
but do not use fitness centres, and those
who are inactive.

The study had four broad areas of investigation, drawn from a wide range of international sources:

- a literature review of future trends
- 16 qualitative focus groups in the UK and the US with early adopters

- of innovation (including health and nutrition, technology, fitness and sustainability) and mainstream active and inactive people
- an ethnographic component conducted in the UK and the US, observing emerging and nontraditional fitness consumption and possible influences on the future
- in-depth interviews with leading international thinkers across a range of sectors and perspectives, and also with Les Mills International agents and key internal staff.

The research revealed:

- a series of themes about possible futures, as foreseen by the experts
- a series of themes about fitness needs and wants, barriers, motivations and responses to concepts, as gleaned from consumers.

The 'niches' were developed by first identifying and analyzing driving forces and trends that will shape the future. Important trends that were seen to be driving all scenarios were selected, and the specific impact they could have for fitness and activity were identified. These trends, supported by the insights of experts and consumers, informed each 'niche'.

#### EXPERTS INTERVIEWED

**US-BASED EXPERTS** 

Will Phillips – Founder & CEO, REX Roundtables for Executives

Frank Napolitano – CEO, Global Fit

Dr Walter R Thompson, Ph D FACSM, FAACVPR – American College of Sports Medicine

Alexandra Montgomery – Children at Risk

UK-BASED EXPERTS

Charles Landry – Founder, Comedia

Keith Hanna – Ansys Fluent Europe Ltd

Dr Tim Anstiss – Principal Lecturer in Behavioural Medicine, Thames Valley University

David Lloyd – Founder, David Lloyd Group

Chris Easton – MLS Ltd

Anne Lise Kjaer - Kjaer-Global Ltd

James Wilsdon – Director, Royal Society Science Policy Centre

Klaus Hubacek – Reader, Sustainability Research Institute, Leeds University

Prof. Mike Jenks — Oxford Institute for Sustainable Development (OISD), Oxford Brookes University

Sean Pillot de Chenecey – Captain Crikey Ltd

Chris Sanderson – Strategy & Insight Director, The Future Laboratory

EXPERTS FROM OTHER COUNTRIES

Nigel Champion — Co-Founder & Managing Director, Australian Fitness Network — Australia Prof. Aleksandar Subic – RMIT University – Australia

Dr Peter Saul – Strategic Consulting Group – Australia

Philip Mills – Founder, Les Mills International – New Zealand

Nick Tolentino – Virtual Spectator International – New Zealand

Jonathan Hunt – Hunt Design – New Zealand

Che Tamahori – Managing Director, Shift – New Zealand

Linden Dale Gandar – Consultant, Synergia – New Zealand

Boje Holtz – Co-Founder, ExDream – Germany

Edgard Corona – BIO RITMO ACADEMIA – Brazil

Richard Bilton – Director Presidente, Companhia Athletica – Brazil

Mark Smith – Board member, Les Mills International – New Zealand

#### **BIBLIOGRAPHY**

24 Hour Fitness. Senior Fitness. <a href="http://www.24hourfitness.com/classes/senior/index.html">http://www.24hourfitness.com/classes/senior/index.html</a>

Acceleron Pharma, Inc. Acceleron Pharma's
ACE-031 Increases Muscle Mass and Strength in
Preclinical Studies, Media release, May 14, 2007

Anderson C. The long tail. Wired. October 2004.

Arnst C. Behind Rising Healthcare Costs. *Business Week* July 14, 2008.

Australian Centre for Retail Studies. *Australian Health and Beauty Report*. Melbourne: Australian Centre for Retail Studies. Monash University. 2005.

Badcock B. *Making Sense of Cities*. London: Arnold. 2002.

Barton H, Tsourou C. *Healthy Urban Planning*. London: Spon Press/World Health Organization. 2000

Beaumont C. Is Microsoft's Natal system the future of gaming? *The Daily Telegraph* June 2, 2009

Belinkya PA, Aviramb M, Fuhrmanb B, Rosenblat M, Vayaa J. *Atherosclerosis* Volume 137, Issue 1, 3 March 1998, pages 49-61.

Berger C, Piller F. Customers as co-designers. *IEE Manufacturing Engineer* August 2003, Vol. 82, Issue 4, pages 42-45.

Bio-Medicine website. A New Pill to Burn Away Fat. April 30, 2007. <a href="http://www.bio-medicine.org/medicine-news/A-New-Pill-to-Burn-Away-Unwanted-Fat-20342-1/">http://www.bio-medicine.org/medicine-news/A-New-Pill-to-Burn-Away-Unwanted-Fat-20342-1/</a>

Blow S. Guess we'll just call these bosom butties? *Dallas Morning News* July 12, 2009. http://www.dallasnews.com/sharedcontent/dws/dn/localnews/columnists/sblow/stories/DN-blow\_12met.ART.Central.Edition1.4bb63de.html

Bodenheimer T. High and Rising Health Care Costs. Part 1: Seeking an Explanation. *Annals of Internal Medicine* 142:847-54, 2005

Bodenheimer T, Fernandez A. High and Rising Health Care Costs. Part 4: Can Costs Be Controlled While Preserving Quality? *Annals of Internal Medicine* 143:26-31, 2005.

Collier J, Wanderly L. Thinking for the future: Global corporate responsibility in the twenty-first century. *Futures* 37:169-82. 2005.

Engardio P, Matlack C. Global Aging. *Business Week* January 31, 2005.

Entertainment Software Association. Industry Facts. 2009. http://www.theesa.com/facts/index.asp

Ewing R, Bartholomew K, Winkelman S, Walters J, Chen D. *Growing Cooler: The evidence on urban development and climate change*. Chicago: Urban Land Institute. 2007.

Farrell D, Beinhocker E. Next Big Spenders: India's middle class. *Business Week* May 28, 2007.

Fitness Management. Nova7 Supplier Awards
Winners. 2006. www.fitnessmanagement.com/
articles/article n7.aspx?articleid=2179&zoneid=31

Hancock L. Facing the future. *The Daily Telegraph* January 13, 2008.

Hanna RK, Subic A. Towards sustainable design in the sports and leisure industry. *International Journal of Sustainable Design* 1:60-74. 2008.

Homer JB, Hirsch JB. System dynamics modeling for public health: background and opportunities. American Journal of Public Health 96, 2006.

Hubacek K, Guan D, Barua A. Changing lifestyles and consumption patterns in developing countries: A scenario analysis for China and India. *Futures* 39:1084-96. 2007

Hurley K. Food in the future: Does futures studies have a role to play? Futures 40. 2008.

Hyperstrike. <a href="https://www.hyperstrike.com/go/consumer">https://www.hyperstrike.com/go/consumer</a>

Intergovernmental Panel on Climate Change.

Climate Change 2007: Synthesis Report. Geneva:
Intergovernmental Panel on Climate Change. 2007.

International Health, Racquet & Sportsclub Association (IHRSA). *IHRSA's Guide to Membership Retention 2007*. Boston: IHRSA

International Health, Racquet & Sportsclub Association (IHRSA). *The IHRSA 2008 Profiles of Success*. Boston: IHRSA

International Health, Racquet & Sportsclub Association (IHRSA). *The IHRSA Global Report* 2009. Boston: IHRSA International Health, Racquet & Sportsclub
Association (IHRSA) website. About Us.
<a href="http://www.healthclubs.com/index.cfm?fuseaction=Page.viewPage&pageld=473">http://www.healthclubs.com/index.cfm?fuseaction=Page.viewPage&pageld=473</a>

International Health, Racquet & Sportsclub Association (IHRSA)website. The Benefits of Exercise. <a href="http://www.healthclubs.com/index.cfm?fuseaction=Page.viewPage&pageld=475">http://www.healthclubs.com/index.cfm?fuseaction=Page.viewPage&pageld=475</a>

Kjaer AL. *Macro Trends 2015+*. London: Kjaer Global. 2008.

Koster R. Are single-player games doomed? 2008. http://www.raphkoster.com/2006/02/10/are-single-player-games-doomed/

Kurzweil R. The Coming Merging of Mind and Machine. Scientific American September 19, 1999

Kurzweil R. The Law of Accelerating Returns. 2001. http://www.kurzweilai.net/articles/art0134. html?printable=1

Larsen J, Urry J, Axhausen K. *Social networks* and future mobilities. Lancaster UK: Lancaster University. 2006.

Lemann N. Kicking in Groups. *The Atlantic Monthly* 277:22-6. 1996.

Les Mills International. BODYVIVETM.  $\underline{\text{http://www.}}$  lesmills.com/bodyvive

MacLehose L, McKee M, Weinberg J. Responding to the challenge of communicable disease in Europe. Science 295:2047-50, 2002.

Martens P. Health transitions in a globalising world: Towards more disease or sustained health? *Futures* 34:635-48. 2002.

McDermott P, Aust J, Johnson A, Williams A. Forces Shaping the 21st Century: Globalisation. Auckland: Auckland Regional Council. 2006.

Medical Fitness Association. MFA Certification. 2008. <a href="http://www.medicalfitness.org/">http://www.medicalfitness.org/</a> displaycommon.cfm?an=1&subarticlenbr=146

Mercola J, Lerner B. *Generation XL: Raising healthy, intelligent kids in a high-tech, junk-food world.* Nashville: Thomas Nelson. 2007.

Ministry of Health. *The Health and Independence Report: Director-General's Annual Report on the State of the Public Health 2004*. Wellington: Ministry of Health (New Zealand).

Mitchell SG, Goetzel RZ, Ozminkowski RJ. The value of worksite health promotion. *ACSM Health & Fitness Journal* 12:23-7, 2008.

O'Reilly T. What is Web 2.0. 2005. http://oreilly.com/web2/archive/what-is-web-20.html#mememap

Peters T. Press kit for *Re-Imagine*. 2003. http://www.tompeters.com/reimagine/files/Re-Imagine Press Kit.pdf

Piller F. Mass Customization, Customer Co-Creation and Open Innovation. 2008. <a href="http://www.mass-customisation.de/">http://www.mass-customisation.de/</a>

Polar USA. Polar Cardio GX System video. <a href="http://www.polarusa.com/us-en/polar\_community/videos?videoid=23364">http://www.polarusa.com/us-en/polar\_community/videos?videoid=23364</a>

Putnam R. The Prosperous Community: Social Capital and Public Life. *The American Prospect* 13. 1993.

Putnam R. Bowling alone: America's declining social capital. *Journal of Democracy* 6:65-78.

Riessman F, Banks E. The mismeasure of civil society. *Social Policy* 26:2-5.1996.

Rodriguez R. Stem Cells from Fat - Plastic Surgery's New Frontier. 2009. http://www. cosmeticsurg.net/blog/2009/06/05/stem-cellsfrom-fat-plastic-surgerys-new-frontier/

Rupp WT, Smith AD. Exploring the impacts of P2P networks on the entertainment industry. *Information Management & Computer Security* 12:102-16. 2004.

Sartwell C. Technology and the Future of Beauty. 2008. http://www.crispinsartwell.com/long/beauty.htm

Savouret JF, Quesne M. Resveratrol and cancer: a review. *Biomedecine & Pharmacotherap* Vol, 56, Issue 2, March 2002, pages 84-87.

Sherwell P. Designer baby row over clinic that offers eye, skin and hair colour. *The Telegraph*. 2009. <a href="http://www.telegraph.co.uk/news/">http://www.telegraph.co.uk/news/</a> worldnews/northamerica/usa/4885836/Designer-baby-row-over-clinic-that-offers-eye-skin-and-hair-colour.html

Shorto R. No Babies? *The New York Times Magazine* June 29, 2008.

Silver Sneakers. <a href="http://www.silversneakers.com/">http://www.silversneakers.com/</a>
Default.aspx

State Services Commission. *Managing for Outcomes: Guidance for Departments.* Wellington: State Services Commission (New Zealand), 2003.

Statistics New Zealand. *Population projections:*Statistics New Zealand Table Builder. Wellington:
Statistics New Zealand. 2008

The Leisure Database Company. Findings from the 2009 FIA State of the UK Fitness Industry Audit. 2009. <a href="http://www.theleisuredatabase.com/news/news-archive/resilience-in-the-fitness-sector">http://www.theleisuredatabase.com/news/news-archive/resilience-in-the-fitness-sector</a>

Thompson WR. Worldwide survey reveals fitness trends for 2008. *ACSM Health & Fitness Journal* 11:7-13. 2007.

lley K. *Time Out Dubai* September 30, 2009. http://www.timeoutdubai.com/kids/features/10913-kids-exercise

Tucker P. Smart fashion: The digitally-enhanced wardrobe arrives. *The Futurist*. September-October 2007, Vol. 41, No. 5.

United Nations. *World Population Ageing 1950-2050*. Geneva: United Nations. 2002.

Utah.com. <a href="http://www.utah.com/ogden/salomon-center.htm">http://www.utah.com/ogden/salomon-center.htm</a>

Wanless D. *Securing Good Health for the Whole Population*. London: HMSO. 2004.

Waters D. Taking Wii to the next level. BBC News. July 17, 2008. http://news.bbc.co.uk/2/hi/technology/7511215.stm

Westrate JA, van Poppel G, Verschuren PM. Functional foods, trends and future. *British Journal of Nutrition* 88:S233-S5. 2002.

Wild S, Roglic G, Green A, Sicree R, King H. Global Prevalence of Diabetes: Estimates for the year 2000 and projections for 2030. *Diabetes Care* May 2004, Vol. 27, No. 5, 1047-1053.

Wilsdon J and Miller P (eds). *Better Humans?*The politics of human enhancement and life extension. <a href="http://www.demos.co.uk/publications/">http://www.demos.co.uk/publications/</a>
betterhumanscollection/