Market Research

SWA

Business Owner:
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Spark Revolutions

Market Research

SWA Phase 1

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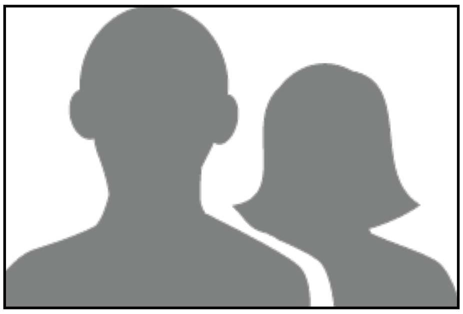
Note

This is a *live* document and will be updated throughout the course of the first phase of SWA (Spark Workout Application, Tentative Title).

Contents.. (1)

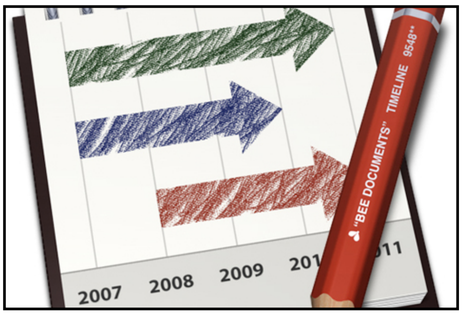
Executive Summary

This single page summary assimilates the key findings from the entire report and condenses it into a easy to read statement.



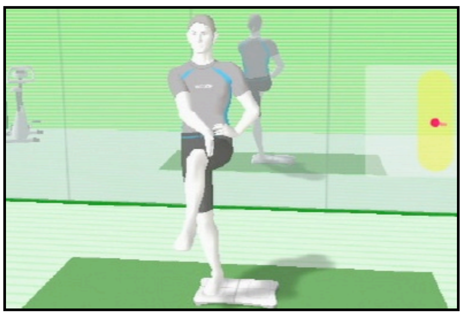
Demographics

Here the demographic state of the consumers involved in the fitness industry is dissected.



Market Outlook

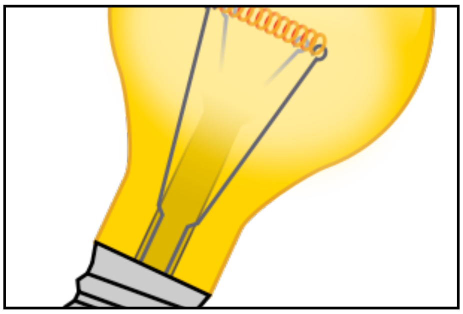
This section looks at who is controlling the health club market right now, how the consumers of those markets are divided and where the growth and motivating factors are coming from.



Competitors

This section analyses and details the pros and cons of other fitness technology currently available on the market. The implementation costs of said technologies are also assimilated.

Contents.. (2)

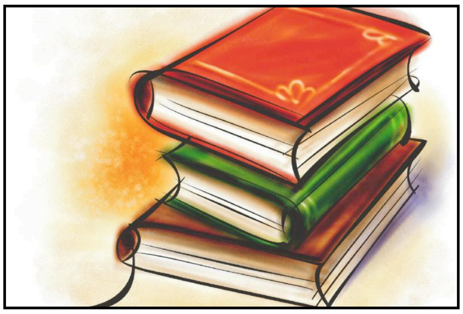


Who’s Innovating

Here, we take a look at new and forward-thinking approaches to fitness, including games consoles, monetary rewards for gym-goers, as well as some currently under-used, but very interesting, technologies.

Final Thoughts

A summation of the entire document. Where does the Spark Workout Application fit into the current fitness/ technology environment. What is currently helping achieve fitness and what is hindering it. How does Spark revolutionise the fitness market?



Appendix

List of references used throughout the document to support its content.

Executive Summary

The augmentation of technology and manual process is something which has been on the rise over the past couple of years. The Health and Fitness industry has seen many different attempts at aiming *current* technology to different demographics.

Health and fitness can be broadly divided into three demographics; The Fit (45%), Healthy in Mind (33%) and Inactive (22%). Amongst this audience, lower income families are currently finding it the most difficult to take advantage of current solutions due to the recent economic downturn. It would also appear that due to the nature of the industry, the *prima facie* target market is saturated, resulting in a demographic of willing users who don't feel compelled by any current product offerings.

There is a recent trend towards group and social exercise, verified by the success of fitness video games employing the same techniques. A large percentage of ex-gym goers are new parents, who feel they no longer have the time to be dedicated to an exercise regime. There have been many efforts to try and (re)-engage these consumers with some of the larger health clubs offering *half-hour express fitness classes*. The UK Government have also formed several fund-based initiatives such as Change4Life.

Fitness technology is divided into three main areas; Gym Technology, Mobile Applications, and Home Interaction. Notably, only video games bridges the gap between demographics, with many solutions suffering with usability issues.

The majority of Gym Technology requires specific equipment which ranges in the £0000's , thus is in accessible to the majority, as the industry is dominated by smaller gyms. A gap exists within this market to leverage emerging technologies to deliver a simple, accessible system. Due to the size of the Home Interaction market it was deemed important to focus our innovation research on its most popular form (Video Games).

Video Games have become the leader in creating a fitness experience for everybody to enjoy. With the most successful games accumulating sales of well over 35 million units worldwide. The influence of gamification is not prevalent in some mobile applications, utilising a points system to incentives exercise.

Having explored the positives of fitness technology's unique selling points, we are conscious of not creating an isolated platform or merely extending the gym experience to the home (or vice versa). Our solution will motivate non-gym goers whilst providing an engaging experience for *The Fit*.

Demographics

Users

Internal Market Environment

20% of people in the UK are gym users, with 16% members. These members can be broken down into three categories:

The Fit (45% of adults) are the most likely to be existing members of clubs, while the other groups are the Healthy in Mind (33% of adults) and Inactive (22%).

Lapsed customers represents 60% of all members, and therefore would deliver an attractive user group to re-engage in the gym environment. This group is largely populated with new mothers, who require a childcare solution for enabling an exercise rich routine -

"offering a solution to childcare issues and that cost is less of an issue than logistics"
"They have already bought into the health and fitness ecosystem... if they can be persuaded that, this time round, the club will be right for them or the price is more affordable or the communication between the club and them is more effective, there is no reason why they cannot be converted back to being members"

Broader Market Environment

The rise of one-person households and smaller households in general is set to continue over the coming five years whilst larger households will remain fairly static or even decline.

UK households:	2004 m	2009 m	2014 (proj) m	% change 04-09	% change 09-14
One-person households	7.60	8.35	8.80	+9.9	+5.4
2 person	8.96	9.54	10.02	+6.5	+5.0
3 person	3.95	3.97	4.15	+0.5	+4.5
4 person	3.30	3.31	3.33	+0.3	+0.6
5+ person	1.67	1.65	1.64	-1.2	-0.6
Average household size UK:	2.35	2.31	2.29	-1.7	-0.9

[1]

[1] Mintel Oxygen, Sport and Fitness for the Time-Pressed Consumer. 2010

This suggests that operators looking to attract the time-pressed would benefit in including an opportunity to socialise with fellow members, be it virtually via social networking sites or actually in the flesh.

Activity

Another section of users under the category of 'health in mind' are young adults, constituting 13% of this sector, as they are predominantly unemployed, they are looking for value for money, opposed to luxury facilities.

"Looking at their demographic characteristics, they are heavily concentrated among the youngest 15-24-year-old age group, younger singles and young parents and those who are not working"

Notable gender differences in the health and fitness industry, with men more likely to go to the gym to generally workout, and women more likely to take part in classes. Woman may be considered as a separate industry to general health and fitness clubs, as they have a broadly different set of requirements -

"it...(this industry)... has also overseen the opening of a large number of women-only gyms"

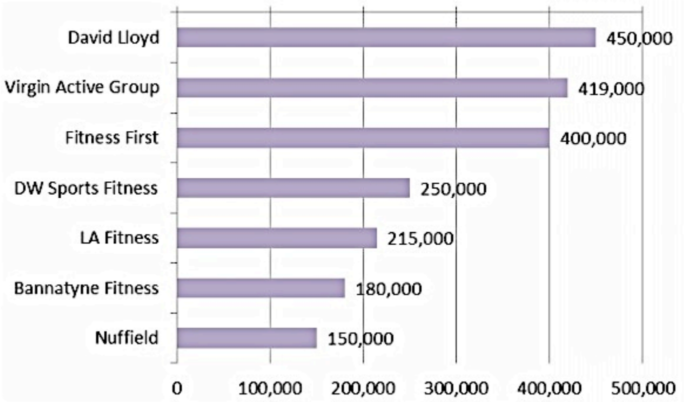
Users are focusing on the social aspect of going to the gym, with a large percentage of non-gym goers stating the if more social technologies were included, they would feel more inclined to participate.

"More than a fifth of potential users would be encouraged to start using a health club if they had a friend or family member to go with, so perhaps there is scope for operators to develop mobile phone apps which enable friends to co-ordinate their visits to the gym with one another."

Market Outlook

Market Control

The top seven operators account for 23% of the total number of clubs and 39% of members[2], illustrating the relatively fragmented nature of the industry, which continues to be characterised by a large number of independent, single-site businesses.



People still want to go the gym, workout and keep fit, but with squeezed household incomes, budget gyms are thriving. However in the UK, members pay about twice that of the US [3], which suggests a lot of room for more cost effective methods.

Much of the growth in outlet numbers recently has come from budget health clubs, where leading operators such as *The Gym Ltd* and *Pure Gym Ltd* have been pursuing an aggressive opening strategy.

As the mainstream media continue to dramatise the differences between male and female fitness, there has been a upsurge in *female-only* gyms. Franchisor *energie* has been very active in this area, overseeing the opening of a large number of women-only gyms in the UK[4].

Growth

Growth in consumer spending on sports equipment, clothing, health and fitness and participation sports has been heavily impacted by the economic climate.

Specifically on Gyms, revenue from Membership/joining fees has increased marginally, but revenue from other sources at the establishments (e.g. sunbeds, food etc.) has decreased by £37 Million over the last two years[5].

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[3] Mintel Oxygen, Health and Fitness Report 2011

[4] Mintel Oxygen, Health and Fitness Report 2011

[5] Mintel Oxygen, Health and Fitness Report 2011

This downward trend has carried over to the operators too with the spend in 2009 estimated at around the £10 million mark, a drop of 1% on the previous year. However, this is forecast to pick up slightly in 2010 to £10.1 million and £10.4 million in 2011.[6]

"Short-terms prospects for the health and fitness clubs market are likely to be difficult, although the situation is expected to improve from 2013"[7]

Motive Factors

Out of all the reasons cited for why current members, or prospective members do not attend the gym - motivation was the biggest factor. This highlights a clear breakdown in a gyms ability to meet user requirements.

"lapsed users clearly lapsed for a reason and those who have never used a club haven't joined yet for a reason, so it is up to operators to come up with club formats and types of membership which will appeal to these consumers"

TechnoGym offers its IFI range which merge cardiovascular equipment like treadmills and bikes with built-in televisions. The results of this has created a more effective fitness program for lapsed users who's concentration may be elsewhere.

"equipment to enable health and fitness clubs to deliver more effective programs for their members has been another major area"

Unfortunately, the market has been slow to engage the demotivated. Recent figures show that 30% of children and 61% of adults in the UK are overweight or obese. It is predicted that if the current trend continues, 9 out of 10 adults could be overweight or obese by 2050[8]. In light of this, the UK government has attempted to alter the future through a number of different fitness-related initatives.

Case Study; Change4Life

The *Change4Life* programme which began in January 2009 is the government's first attempt at reducing those obesity levels.

[6] Sports Industry Research Centre (SIRC)

[7] Mintel Oxygen, Health and Fitness Report 2011

[8] Government Office for Science's Foresight Report (Tackling Obesities: Future Choices, 2008)

The program markets three main areas:

Promoting healthier food choices through partnerships with the leading food retailers. This led to the creation of several initiatives. Some of which include, a recipe finder with a focus on budget, with the addition of exclusive deals such as a free celebrity chef endorsed cookbook. They also offer free healthy-eating tips and advice, largely focused on ways to include plenty of fruit and vegetables in the daily diet. They offer healthy snack alternative ideas, Q&A to common concerns as well as the ability to create a 7-day meal plan. There is a focus on encouraging a healthy diet in children, and Change4Life have partnered with a popular kids television programme to help promote fruit and veg to kids as opposed to sugary snacks, from a young age.

Developing methods of simple physical activities as a result of Change4Life, Swim4Life & Bike4Life. A key part of these promoted physical activities is the inclusion of the whole family, or joining in with team activities. There is an *Active Holiday Planner* aimed at getting families to have a more active holiday, with the idea that simple goals are set in the beginning, such as spending more time together or learning a skill, and are achieved by families taking part in physical activities. A *Healthy Activities* planner is available to try to ensure that kids, as well as adults, spend enough time performing some form of physical activity. Short but regular amounts of exercise are advised as ways of avoiding future illnesses.

Creating incentives for keeping it going with *Points4Life*. Developed by NHS Manchester and Manchester City Council, Points4Life is the world's first citywide wellness incentive programme, rewarding people for making healthy and active choices.

Members earn Points4Life when they buy healthy food through partner retailers and by participating in physical activity with a range of partner organisations. The rewards depend on the number of Points4Life earned, with a range of rewards such as leisure and entertainment experiences, gadgets and money-off vouchers, as well as chances to win money-can't-buy prizes. Members who reach their Points4Life goals – representing achievable steps towards a healthier lifestyle – qualify for bigger rewards.

Time was also cited as a huge reason for why people would not attend a gym. The proportion of those exercising for under 30 minutes has shown the greatest increase, highlighting the demand for short-format exercise solutions; nearly a fifth of adults opt for the quick fix.

To coincide with this, a recent report by the UK government recommends that adults have 150 minutes worth of exercise a week, split into 30 minutes a day of moderate to vigorous physical activity [9]. Following the publishing of this report, the large health clubs such as Fitness First, Virgin Active and David Lloyd offer a range of half-hour express fitness classes both early morning and lunchtimes for those that are pushed for time. Furthermore, addressing the demand for quick results with minimal input, the *Énergie* women-only clubs have a weight loss programme designed around an eight-station, 30-minute workout combining aerobic exercise and muscle toning.

Group vs Individual Activity

The research suggests that group activities are on the uprise and are preferred to individual exercise. Although scientific evidence suggests Weight Training is the most effective form of weight loss, the use of weight machines has declined by 0.5% whilst group activity such as classes or organised runs have increased by 10%[10] (more social exercising is seeing an uplift)

"There has been an uplift in the proportion of adults who are members of sports clubs, suggesting a trend away from more insular individual exercising towards more structured and organised group activities"

[9] Department of Health, UK-wide advice on activity and fitness levels, July 2011

[10], Mintel Oxygen, Sports for the Time-Pressed Consumer Report

Competitors

Gym Technology

Name	Cost	+ Point	- Point
Bally Total Fitness (SoftKinetic) by Helios	• Unknown, as it's a bespoke platform, probably very high.	• Full body immersion - 'You are the controller' • Personifies the gym experience • Shows tips and allows you to build a future self	• Built with old, proprietary technology (flash) • Exclusive to Bally Fitness in the US • Offers more *novelty* that *substance*
Life Fitness Virtual Trainer by Life Fitness	• Machines £4000-£10000/pc • (subsidised by gym membership)	• Stores workout on USB Memory Pen for use next time • Progress Analysis • Medically Accredited	• USB is easily to lose, expensive to replace • Laborious build in touch screen interface • Video training with only limited detail
Gym Technik by Trainerize	• Freemium Business Model • Premium - €3(€4)/pm • Premium+ - €20(€25)/pm	• Accessible on all mobile platforms • Exercise and progress tracking	• Manual data entry and progress updating.
ActivIO by Activio AB	• Price on request	• Group heart rate based exercise • See realtime telemetry of groups heart rate • Track performance	• Only suitable for group heart rate based exercises • Very focused use - no scope for other application

Name	Cost	+ Point	- Point
TechnoGym Wellness System by TechnoGym	• Machines & Kiosk £3000-£10000/piece • *Wellness Key* £4/piece • Often subsidised by Gym Membership	• Fully integrated tablet control (with TV, web and media) • Automatic progress and exercise tracking • *Wellness Key* to store your information	• Based on very old technology • No online link whatsoever • Poorly constructed user interface for Kiosks

Mobile Fitness Applications

Name	Cost	+ Point	- Point
iMuscle (NOVA series) - by 3D4Medical.com	• £2.99	• 3D view of human muscle structure • Build workouts from repository of exercises • Exercises based on optimising specific muscle groups	• Uses very heavy medical terminology throughout • 3D animation shows no expansion of muscles • Very unintuitive
Fitness HD by Viaden	• £1.99	• Large repository of exercises and customisable routines • Yoga exercises • Video content • Dietary advice	• Self contained • No performance tracking • Numerous variations of the same app available creates confusion
Nike Training Club by Nike Inc.	• £FREE	• Simple interface • iTunes integration • Video timed exercises • Exercise and break timer • Each workout unlocks points which can be spent on professional advice • Facebook integration	• Limited number of exercises • No customisation of routine

Name	Cost	+ Point	- Point
FitnessOne by BAY I 2.COM	• £FREE (Although stated as a temporary price)	• Simple interface, 5 required fields • Weekly routines automatically build based on your requirements • Exercises delivered as video's	• Video's Streamed through YouTube
Men's Health by Men's Health Magazine	• £FREE	• Large collection of short videos and instructions • Each exercise can be customised to suit your physique • Track daily performance and progress	• Limited number of exercises • Unable to create personalised routines • No integration with web based technologies
JeFit by JeFit, Inc.	• £FREE - Ad supported • Pro version $4.99	• Build and customisable and routines • Cross-platform (including web based) • Track and analyse performance and statistics • Auto timer and weight calculations (it tells you how many reps and what weight)	• Have to create an account before you can use • Then manually enter in all body stats before useable • Requires regular updating with changes in your body
Daily Burn by Gyminee/Daily Burn, Inc.	• £freemium • £0.69 for additional apps (food scanner) • Pro versions - $50 - $75 - $200/pa	• Nutritional information through barcode scanner feature • Online community & integrated website • Cross Platform	• Very text heavy • Elongated navigation • Can be expensive to match the functionality of other systems

Name	Cost	+ Point	- Point
PumpOne - Fitness Class by PumpOne, LLC	• $1.99/pm per class • $5.99 per class	• Built-in Marketplace to download workout classes • 30-60 second video and some text demostrations	• Video's are short and not very detailed • Impractical for in gym use • Purchasable classes are not personal to the user's goals
PumpOne - Fitness Builder by PumpOne, LLC	• $59.99/pa	• Large repository of workouts • Contact a real personal trainer online	• Expensive • More aimed at those who wish to become a personal trainer

Fitness Video Games

Name	Cost	+ Point	- Point
Wii Fit & Wii Fit Plus by Nintendo	• Balance Board & Game (Wii Fit or Wii Fit Plus): £69.99 • Nintendo Wii Games Console: £99.99	• Very friendly and intuitive user experience • Uses 3D caricture as a representation of the user through *Mii* characters • Tracks performance and makes suggestions • Large range of cardiovascular exercises • Several international medical endorsements	• Does not integrate with any social media
EA Active by Electronic Arts	• Accessory & Game: £49.99 • Nintendo Wii Games Console: £99.99	• Virtual personal trainer • Tracks performance • Large range of both cardiovascular and weight exercises	• Seen as *more complex* and less inviting that Wii Fit

Name	Cost	+ Point	- Point
Kinect Sports by Microsoft	• Game: £39.99 • Xbox 360 Games Console & Kinect Accessory: £279.99	• No physical equipment to interact with • Uses entire body meaning its not as easy to cheat	• Limited selection of actual exercises • Does not integrate with any social media • No advise on fitness goals or workouts
YourShape by Ubisoft	• Game: £39.99 • Xbox 360 Games Console & Kinect Accessory: £279.99	• Online integrated tracking • Endorsed by UK magazines, *Men's Health* and *Women's Health*	• Limited scope

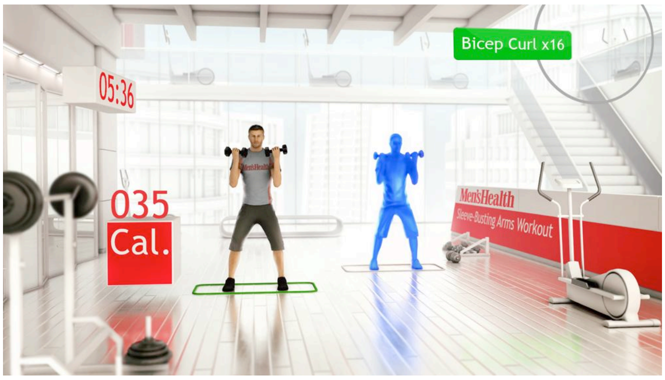
Who's Innovating

Disruptive Technology

Wow Wii!

In April of 2008, Nintendo released a video game called Wii Fit for the Nintendo Wii console. It is an exercise game consisting of activities using the Wii Balance Board peripheral. Wii Fit is currently the third best selling console game in history (among video games not packaged with a console) with 22.61 million copies sold worldwide as of May 2010 with 4 million units in the UK alone.

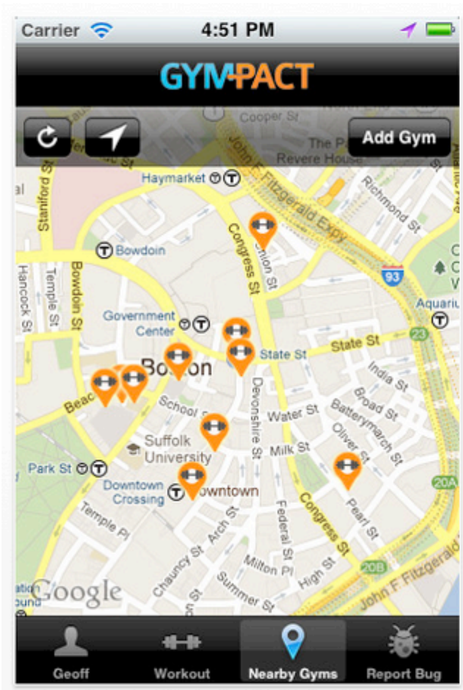
Many have attempted to capitalise on the new technology market seemingly created by Wii Fit including but not limited to, Jillian Michaels' Fitness Ultimatum 2009 (3G Studios), EA Sports Active (EA Vancouver), Your Shape (Ubisoft) and Active Life (h.a.n.d. Inc.).

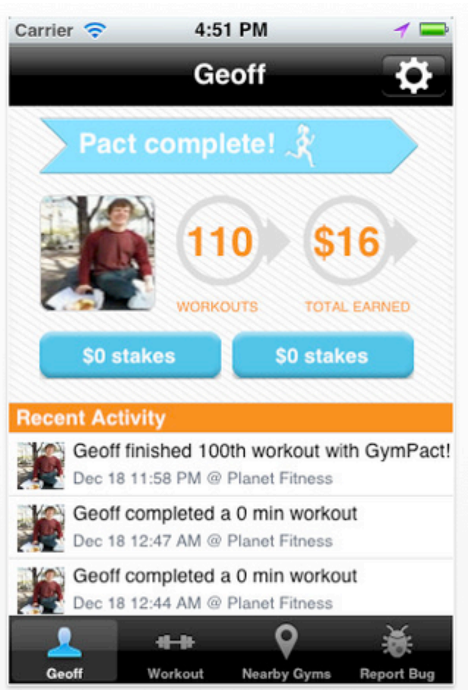


Only one of the large health clubs have attempted to enter this market through a Wii Game called NewU (Fitness First), and subsequently offered a host of Wii equipment and special offers for the Fitness First gyms. Unfortunately this product only sold 2% as many units that Wii Fit did in the UK alone[11]. The gamification of gym technology done in the right way for use *within* the gym could lead to growth not yet unrealised by many of the larger players in the fitness industry.

Get Paid to be Healthy

Recently, a new american startup called *GymPact* has launched a scheme which offers cash incentives to get you inside the gym. The idea for GymPact came out of a behavioral economics class Co-founders Yifan Zhang and Geoff Oberhofer took while at Harvard University, which led them to run a 6-month trial of their idea starting in early 2011, beginning with a handful of gyms in Boston, USA.





[11] vgchartz.com, NewU Fitness First Sales History

The service gets you to create a “Pact” over how many times you’ll make it to the gym over the course of a given week, and how much money you’ll be willing to pay if you don’t meet that goal.

If you do meet your goals, the startup gives you cash rewards from the collective pot of those who didn’t meet their goals, with GymPact taking a 3 percent fee based on those transactions. And to discourage drive by check-ins, users must stay at the gym for at least 30 minutes for their check-ins to count. However, Pacts are made on a weekly basis, and users can change or freeze their pacts until Sunday night, when GymPact tallies your total attendance.

Augmented Reality

Augmented reality (AR) is a live, direct or indirect, view of a physical, real-world environment whose elements are augmented by some form of computer-generated sensory such as sound, video, graphics, GPS data or a mix of them all.

As we enter the era where technology is no longer a barrier to imagination, augmentation has become a fast mover in disruptive technology.

QR Codes (Quick Response Codes) is one technology used for augmentation. Originally designed by Toyota as a type of barcode to help track production, they have been rapidly adopted due to popular outside of the industry due to its fast readability and large storage capacity (up to 4,296 alphanumeric characters.) when compared to a standard barcode.

QR codes are now used over a much wider range of applications, including commercial tracking, entertainment and transport ticketing, product marketing and in-store product labeling. Whilst its use is varied, QR Codes have yet to really penetrate any of these markets as a standard.

Due to its thin user requirements (all you need is a camera) and the increased popularity of smartphones; Out of all the uses mentioned above, the one with the fastest growth rate has been product marketing. So far, its use has been limited directing users to advertised offers or websites.

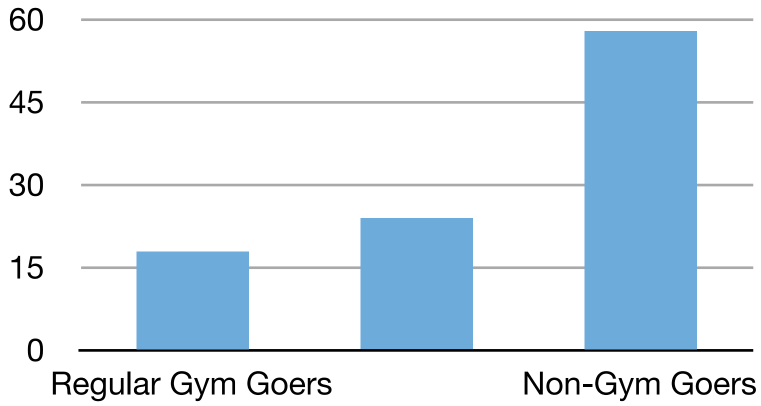
Meanwhile, some companies are enhancing their adverts with the use of augmented reality, such as through Blippar and Aurasma. These apps use image recognition to identify a product or an ad, which then provides interactive features to consumers such as games and menus that lead to other content.

Although innovative, Mintel's consumer research has found that only 5% of consumers have ever interacted with an advert using their smartphones.

In order to create a functioning and economic alternative to the current offerings we would need to replace much of the proprietary technologies with secure, open-source systems. Life Fitness Virtual Trainer is one of the most feature rich and personalised Gym systems, however it requires users to carry their data with them on a USB drive. This is a core competency for Life Fitness Virtual Trainer as the equipment is thus proprietary and costs a premium.

Final Thoughts

The current gym format doesn't work for many prospective gym users, as those who have been and quit, or intend to go, aren't



A solution needs to be developed which will encourage the large population of non-gym goers to become members and adopt a healthy life style which includes the gym. As the majority of non-gym goers remarked that time and motivation are the key reasons for not engaging in this ecosystem we believe that a system which attributes tangible value and progress to the experience would overcome this negative.

Although this has been achieved in the past with moderate success we believe that we can implement a system which not only helps members achieve their goals, but also increase enjoyment and thus motivation.

One ey aspect to the results was social integration, making the experience more social, however, this was seen as a key to overcoming the nervousness of not knowing what to do. We therefore believe that y implementing a socially accountable gamification would partly overcome this inhibitor. However the cause of this demotivator can be accurately resolved by delivering meaningful tutoring.

Current solutions use only video, text or pictures to deliver key exercises, and this is unsuitable for a detailed instruction, as users are not willing to stand in the gym an read or watch an in depth tutorial of exercises. Therefore we propose that an alternate, interactive method of teaching should be harnessed. By using a 3D animation, that users can move, zoom in and out of and view precise movements can offer a much more effective method of delivering instruction.

Appendix

User-Generated Mobile Services for Health and Fitness (2011), *SOCNE workshop.* IEEE ETFA' 2011

Cloud Computing for Enhanced Mobile Health Applications (2010), *IEEE*

Mobile Health 2010 (2010), *Pew Research Center's Internet & American Life Project*. California Health Care Foundation

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