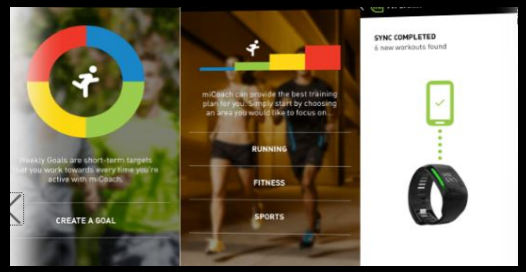
El uso de las nuevas tecnologías por parte de las y los profesionales del deporte

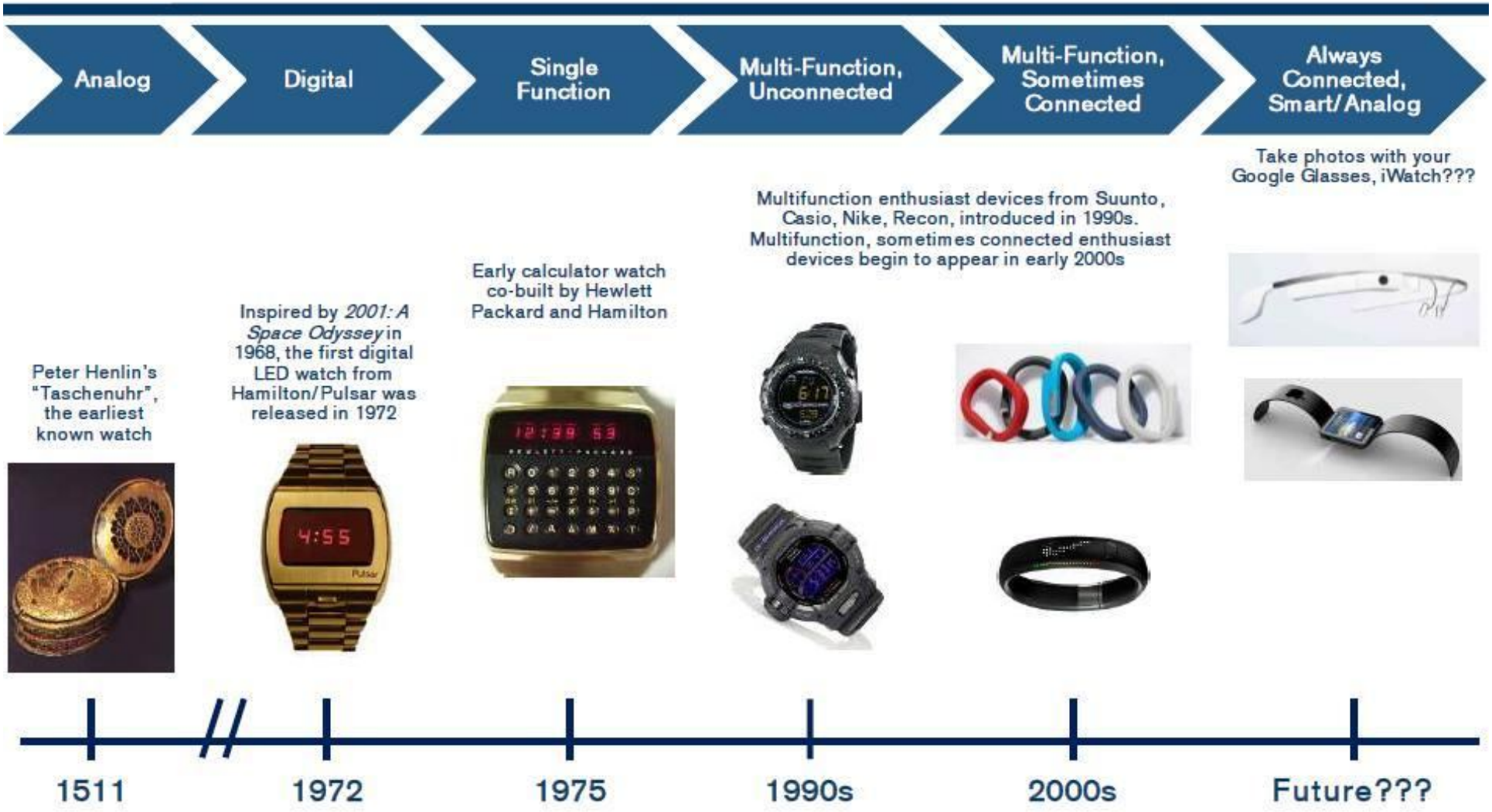


Monitores y entrenadores

Arrasate , 16 diciembre de 2014

Eugenio Rodriguez Pujol

The Evolution of Wearables



Conjunto de aparatos y dispositivos electrónicos que se incorporan en alguna parte de nuestro cuerpo interactuando continuamente con el usuario y con otros dispositivos con la finalidad de realizar alguna función específica.

APPS GADGETS SISTEMAS MOVIMIENTO

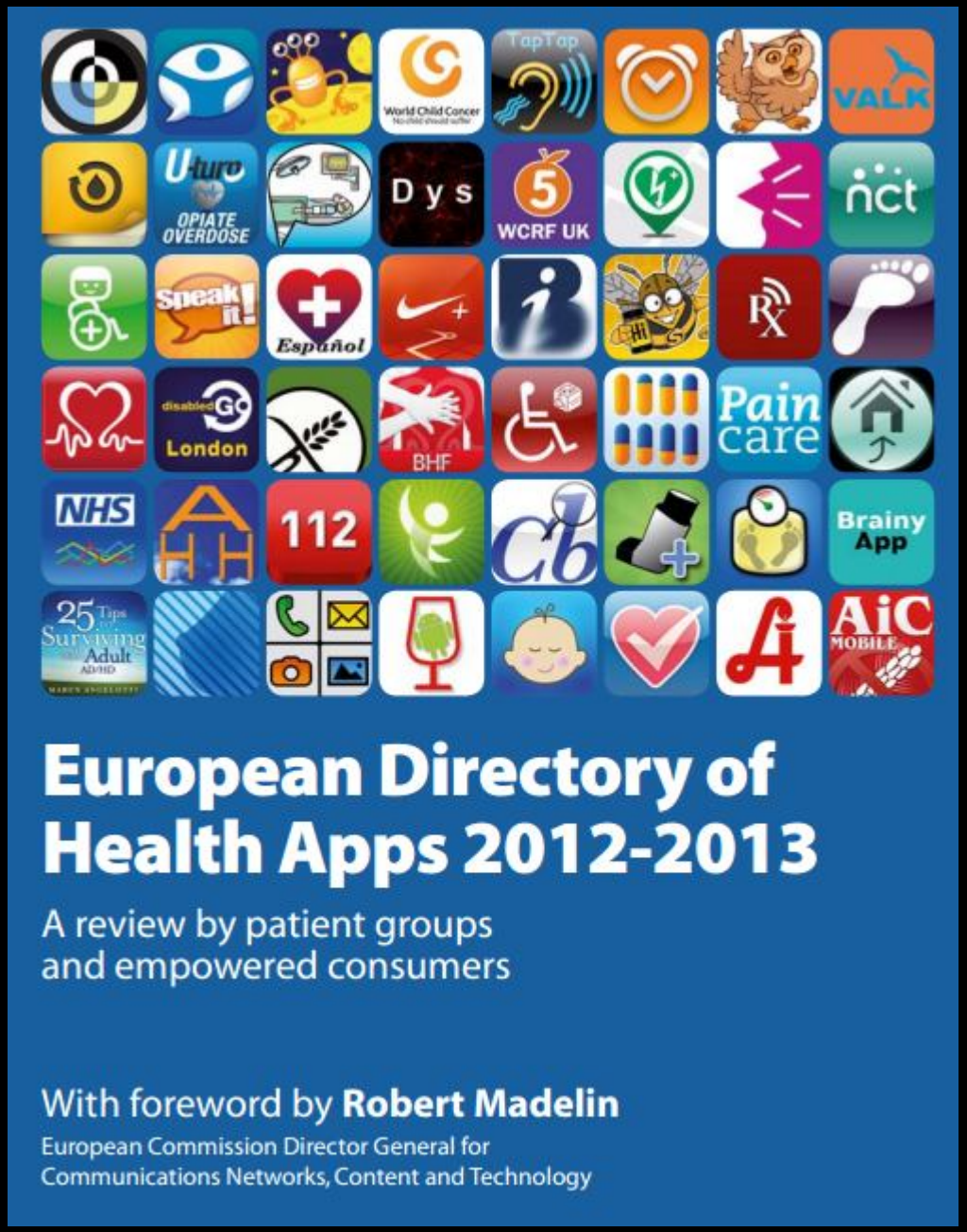
"SISTEMAS" DE ENTRENAMIENTO

APLICACIONES

FORMAS EJERCICIO

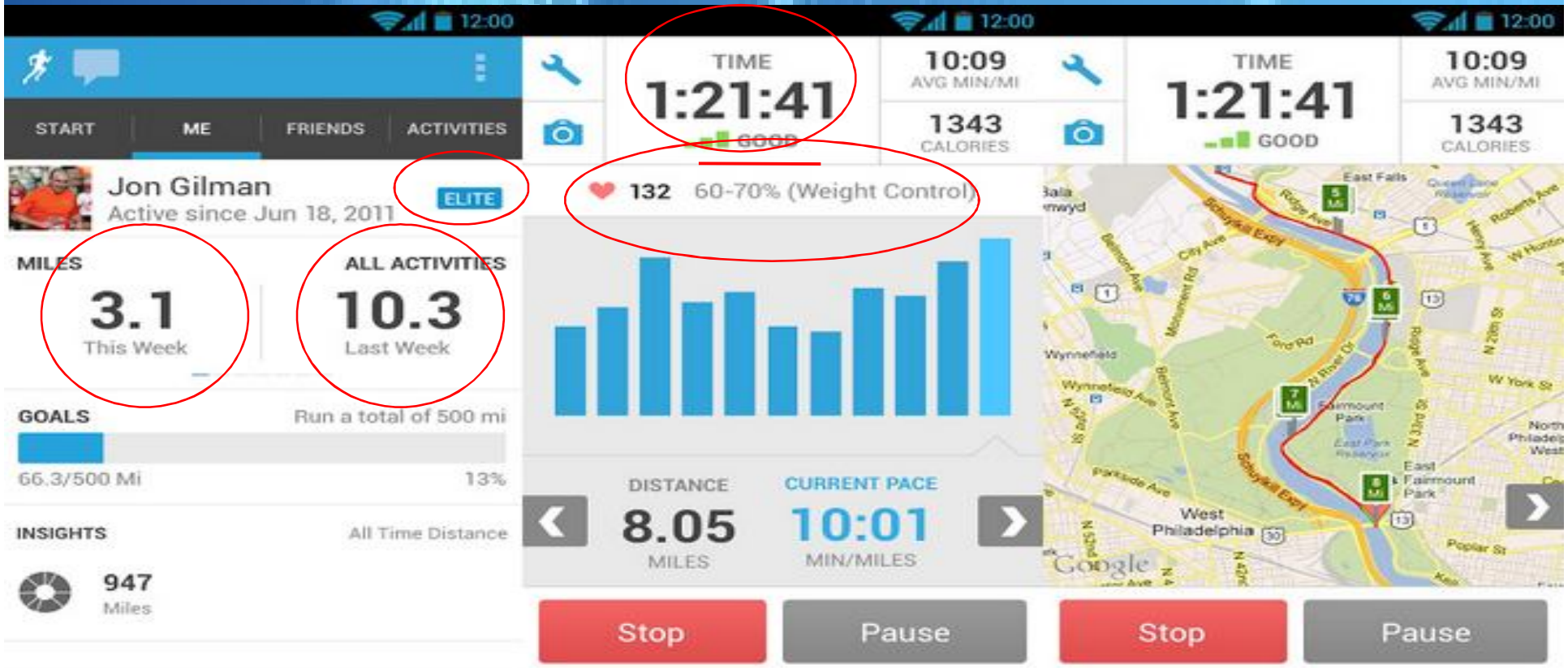
GAMIFICATION. SERIOUS GAMES.

EXERGAMING



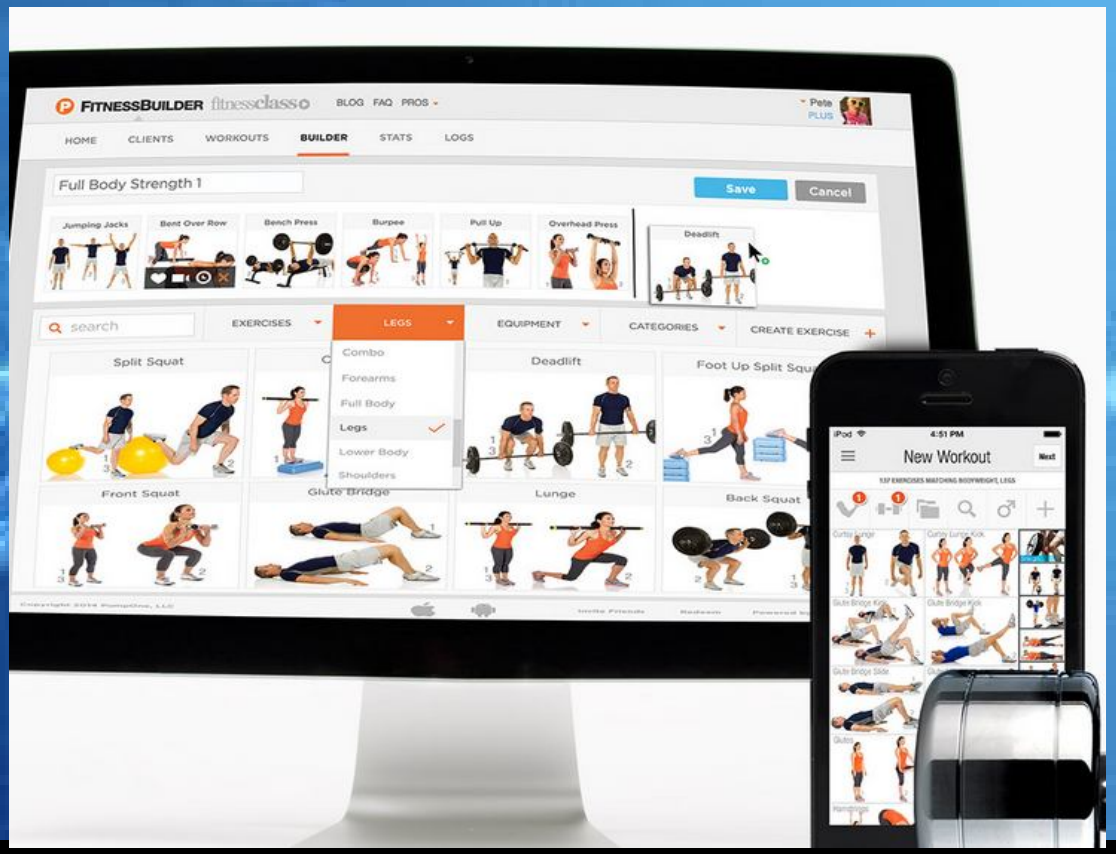
http://myhealthapps.net/

SALUD – PROMOCION EJERCICIO



CARGA INTERNA	CARGA EXTERNA	FEED BACK	COMPARACION	PLANIFICACION
Frecuencia cardiaca	Distancia	Nivel	Grupos de entreno	Cerrada
Zona FC	Intensidad	Valoración	Amigos	Abierta
Calorías		Recorrido		

SALUD – PROMOCION EJERCICIO



CARGA INTERNA
NO

CARGA EXTERNA
% Rp max

FEED BACK
Imagen
Video

COMPARACION
Amigos

PLANIFICACION
En función del tiempo
Cerrada
Consulta Streaming

Valoración y prueba de esfuerzo

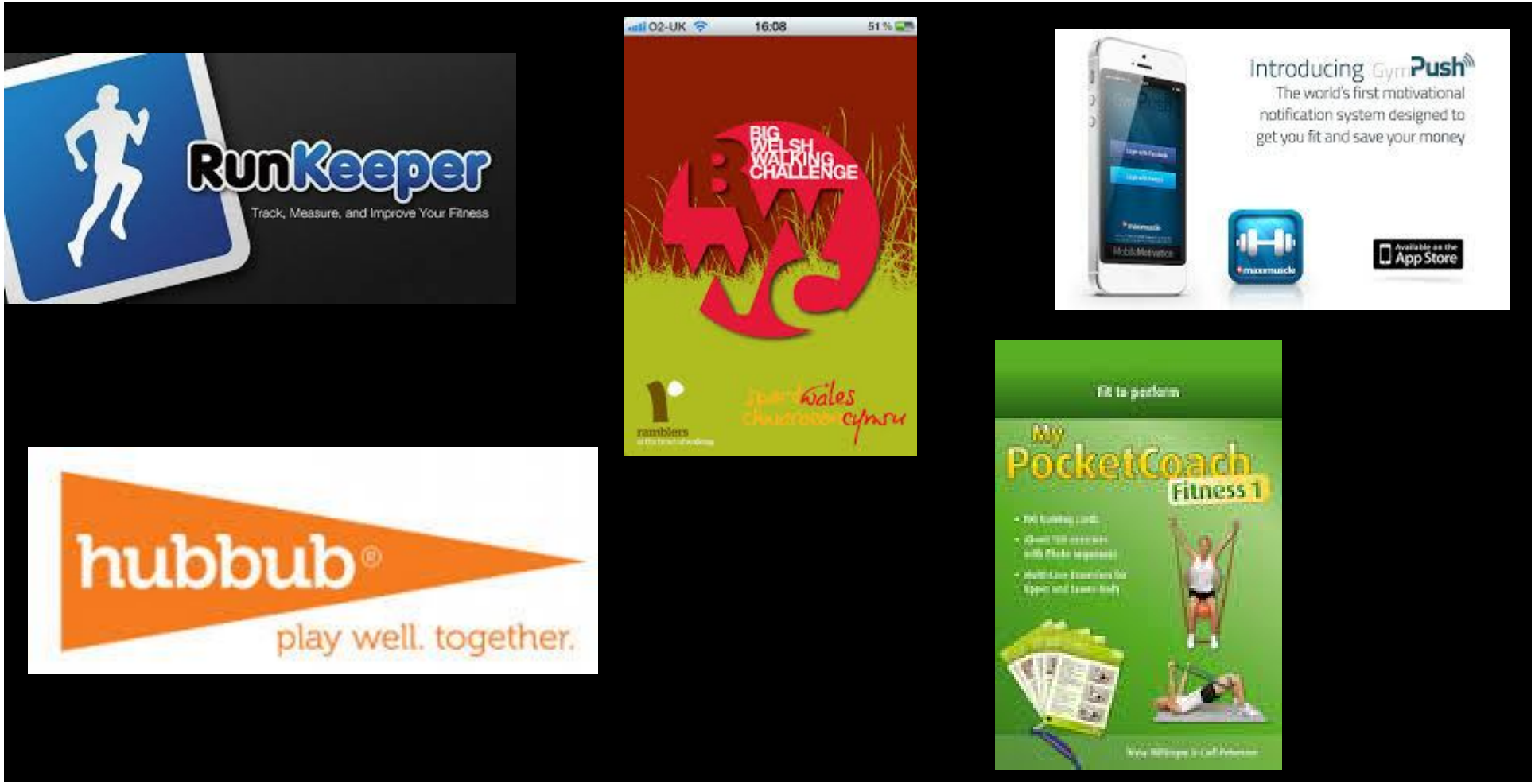
Middelweerd et al. International Journal of Behavioral Nutrition and Physical Activity 2014, 11:97
http://www.ijbnpa.org/content/11/1/97

INTERNATIONAL JOURNAL OF BEHAVIORAL NUTRITION AND PHYSICAL ACTIVITY

REVIEW Open Access

Apps to promote physical activity among adults: a review and content analysis

Anouk Middelweerd[1], Julia S Mollee[2], C Natalie van der Wal[2,3], Johannes Brug[1] and Saskia J te Velde[1*]



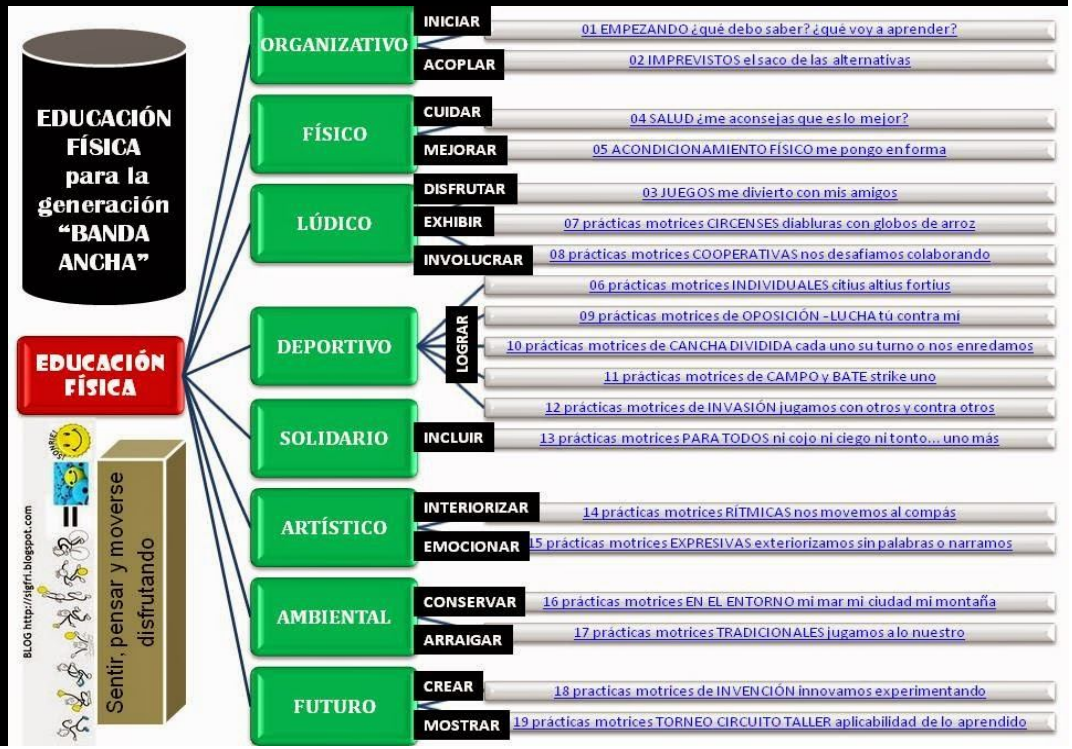
TECNICAS CAMBIO DE CONDUCTA

Figure 2 Frequencies of the 23 behavior change techniques used in apps. Behavior change techniques are scored using the taxonomy created by Abraham and Michie [14], ranked by the most frequently applied techniques.

EDUCACION

Psicomotricidad

Actividad física



EDUCACION

Enseñanza Educación Física(secundaria)

Organización competiciones

Clases colectivas

Banco de recursos TIC y APP para Educación Física

PREVENCION REHABILITACION

Obesidad infantil

Original Investigation | May 2014

JOURNAL CLUB

Effects of a Pediatric Weight Management Program With and Without Active Video Games

A Randomized Trial

Stewart G. Trost, PhD[1]; Deborah Sundal, MA[2]; Gary D. Foster, PhD[3]; Michelle R. Lent, PhD[3]; Deneen Vojta, MD[2]

[+] Author Affiliations

JAMA Pediatr. 2014;168(5):407-413. doi:10.1001/jamapediatrics.2013.3436. Text Size: A A A

Un programa de 16 semanas presenta diferencias significativas control peso en población infantil

Hindawi Publishing Corporation
Journal of Obesity
Volume 2013, Article ID 438364, 8 pages
http://dx.doi.org/10.1155/2013/438364

Hindawi

Review Article

Exergaming as a Strategic Tool in the Fight against Childhood Obesity: A Systematic Review

Carminda Maria Goersch Fontenele Lamboglia,[1] Vanina Tereza Barbosa Lopes da Silva,[1] José Eurico de Vasconcelos Filho,[2] Mônica Helena Neves Pereira Pinheiro,[3] Marilene Calderaro da Silva Munguba,[4] Francisco Valmar Isaias Silva Júnior,[2] Fernando Alberto Ramirez de Paula,[3] and Carlos Antônio Bruno da Silva[1,5]

Alabama public schools turn to Wii childhood obesity

By Marie Leech | mleech@al.com
Email the author | Follow on Twitter
on September 17, 2011 at 12:15 PM

Print

Actress Kelly Monaco works out with the new Wii Fit Plus at Village at the Yard during last year's Sundance film festival. Alabama public schools are using the system to fight childhood obesity. (AP)

Ask most third-graders whether they'd rather run laps in hundred-degree temperatures or play a video game, and it doesn't take a genius to correctly predict their answer.

What did take some brainpower, however, was figuring out how use that fondness for electronic games to get some of the same benefits as running.

Wee Can Fight Obesity is a fitness program for third-graders in Alabama public schools, and uses the Wii Fit Plus Bundle and EA Sports Active video games to improve physical fitness three days a week during P.E. class.

The one-year program is in 30 schools this year, and was in 30

La tecnología puede ser una estrategia eficaz para reforzar conductas activas y sanas.
Exergaming como potenciador de conductas positivas

PREVENCION REHABILITACION

Evaluación postural

Sway

Smartphone Sensitivity in Objective Balance Testing

The Science Behind Sway Balance™
Clinical Research Report
July 23rd, 2013

Equilibrio postural 3ª edad

Dan Med J. 2014 Jan;61(1):B4775.

Assessment of postural balance in community-dwelling older adults - methodological aspects and effects of biofeedback-based Nintendo Wii training.

Jørgensen MG.

Parkinson

J Neuroeng Rehabil. 2014 Mar 7;11:33. doi: 10.1186/1743-0003-11-33.

The role of exergaming in Parkinson's disease rehabilitation: a systematic review of the evidence.

Barry G, Galna B, Rochester L[1].

Accidentes cerebro vasculares

Clin Rehabil. 2014 Aug 14. pii: 0269215514542638. [Epub ahead of print]

Participant and caregiver experience of the Nintendo Wii Sports™ after stroke: qualitative study of the trial of Wii™ in stroke (TWIST).

Wingham J[1], Adie K[2], Turner D[3], Schofield C[3], Pritchard C[3].

PREVENCION REHABILITACION

Aplicaciones prevencion readaptacion especificas

BMC Musculoskelet Disord. 2014 Jan 7;15:2. doi: 10.1186/1471-2474-15-2.

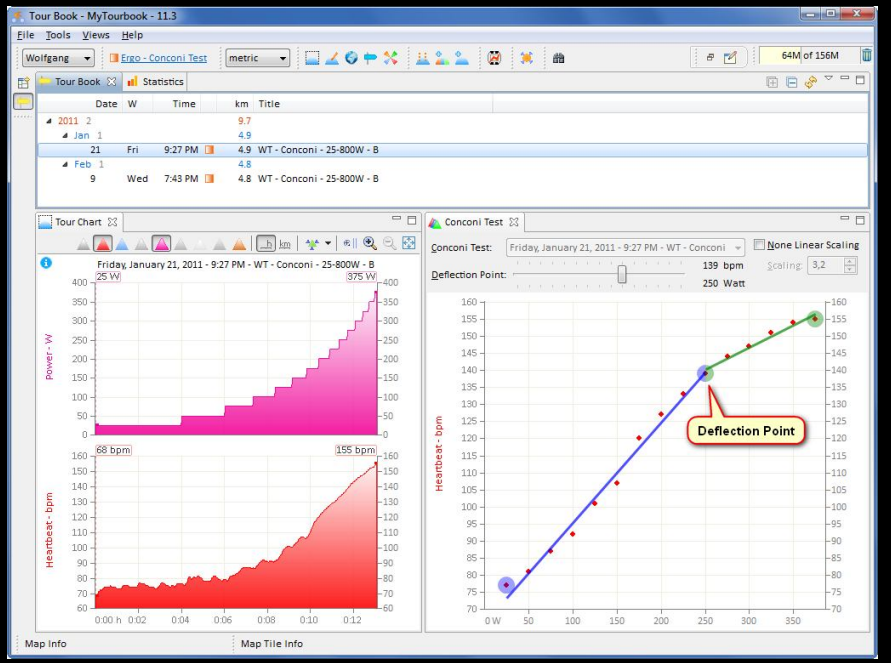
The implementation effectiveness of the 'Strengthen your ankle' smartphone application for the prevention of ankle sprains: design of a randomized controlled trial.

Van Reijen M, Vriend II, Zuidema V, van Mechelen W, Verhagen EA[1].

Virtual Rehab

RENDIMIENTO

Determinación zonas trabajo (UAI)

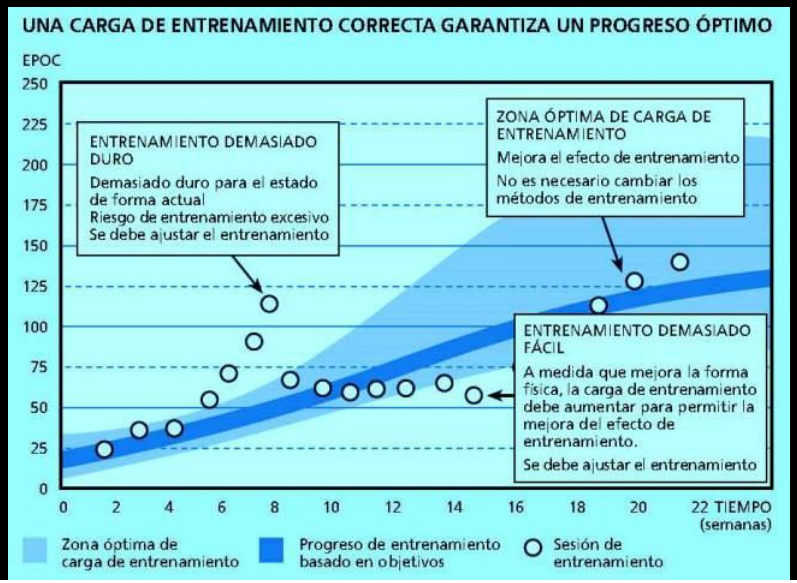


Int J Sports Physiol Perform. 2010 Dec;5(4):437-47.

Value of the application of the heart rate performance curve in sports.

Hofmann P[1], Pokan R.

Estados sobreentrenamiento (EPOC - TRIMP)



Shooting Arc

Soften your shot for more consistency by learning to shoot with ideal arc.

Watch it in Action

Shot Release Speed

Increase scoring with more shot attempts by always shooting at game speed.

Watch it in Action

Dribble Intensity + Speed

Become more versatile by learning to dribble harder under pressure with either hand.

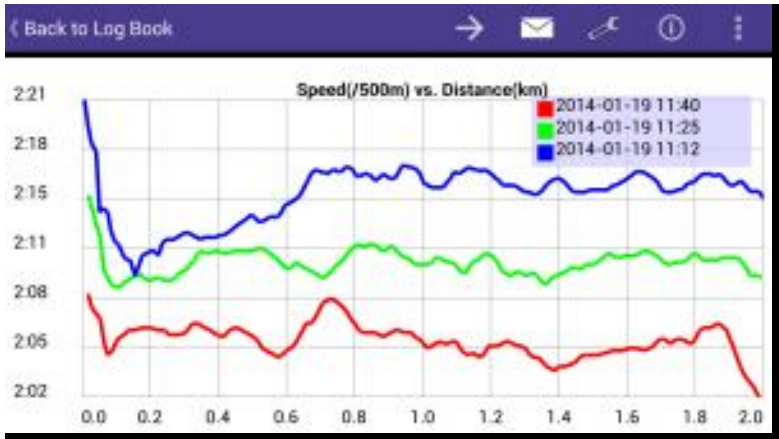
Watch it in Action

Shot Backspin

Improve accuracy by developing a strong wrist for better follow through and a

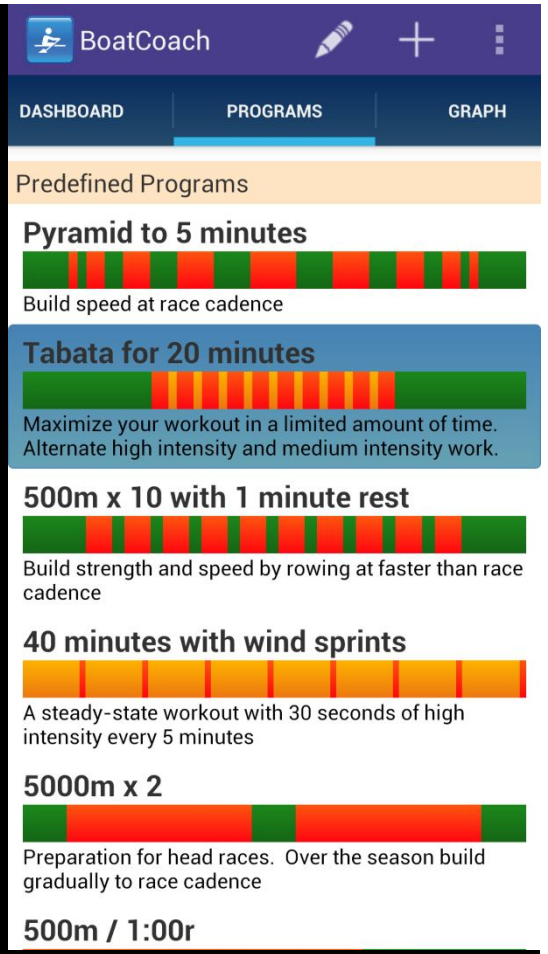
94FiFty

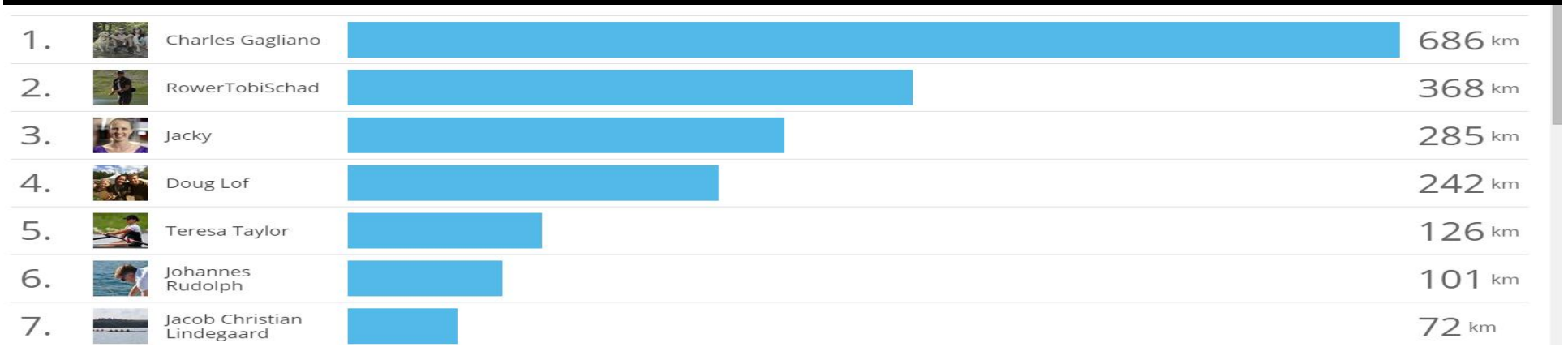
Actividades específicas



BoatCoach

The Android app for rowing and erging





rowing Motion

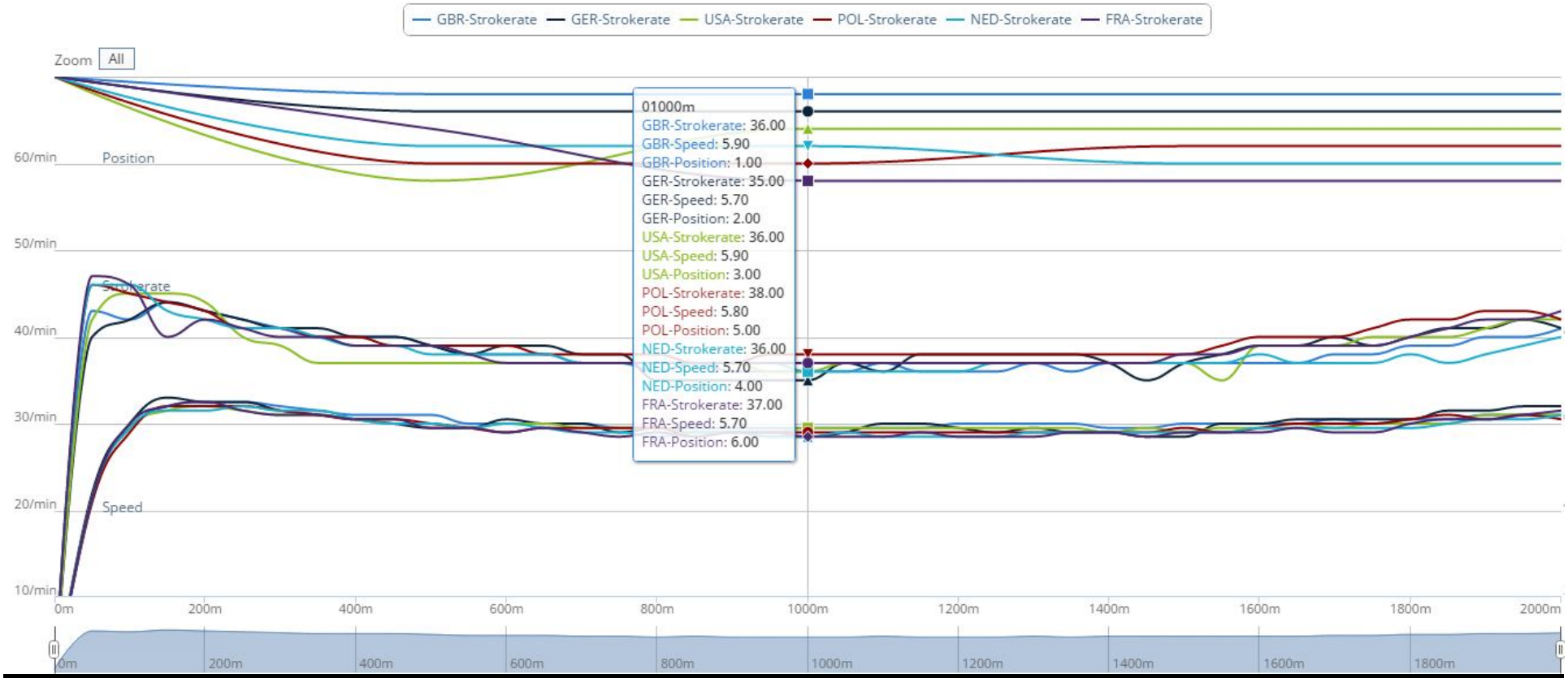
RiMAnalytics

2013 World Rowing Champior

2013

2013 World Rowing Championships, Chungju, Korea

M8+ Final A



Create a customized profile to determine your heart rate zones.

Visualize your heart rate zone in real-time on your lens while you are training.
Blue if fat burning, Green if fitness, Red if maximum performance

Measure crucial training parameters.
Calories, number of laps, number of flip turns & breathing pattern

Upload your information after your workout for a detailed analysis over time.

EJEMPLOS

ECSS Congress de Barcelona 2013

El uso de acelerómetros comerciales aplicado al baloncesto

- *la precisión del aparato es correcta*
- *su validez ha sido demostrada en cuanto a la cantidad de la carga*
- *su fiabilidad es importante*
- *el muestreo parece suficiente para determinar los desplazamientos*
- *es un acelerómetro, no puede medir nada que no sea desplazamiento*

European Journal of Sport Science, 2014
http://dx.doi.org/10.1080/17461391.2014.956801

Routledge
Taylor & Francis Group

ORIGINAL ARTICLE

A contribution to the validation of the Wii Balance Board for the assessment of standing balance

PIERO PAVAN[1], MATTEO CARDAIOLI[1], ILARIA FERRI[2], ERICA GOBBI[3], & ATTILIO CARRARO[3]

Duclos *et al. Journal of NeuroEngineering and Rehabilitation* 2012, **9**:28
http://www.jneuroengrehab.com/content/9/1/28

JNER JOURNAL OF NEUROENGINEERING AND REHABILITATION

RESEARCH Open Access

Dynamic stability requirements during gait and standing exergames on the wii fit® system in the elderly

Cyril Duclos[1,2*], Carole Miéville[1,2], Dany Gagnon[1,2] and Catherine Leclerc[1,2]

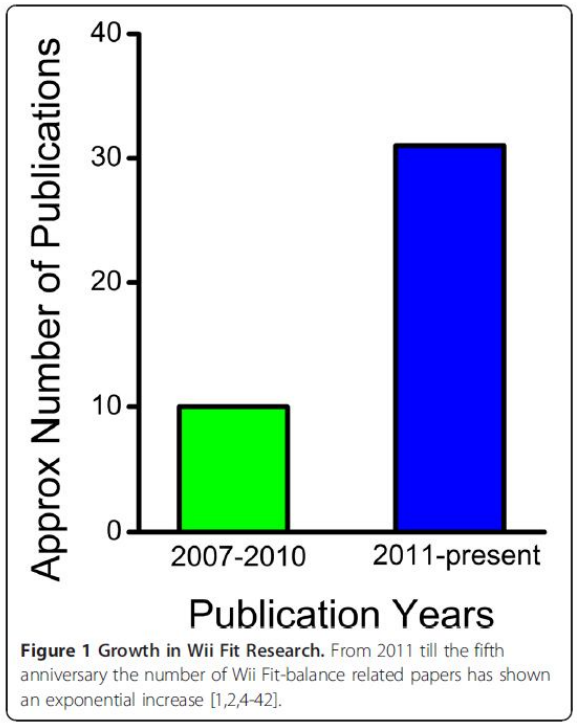


Figure 1 Growth in Wii Fit Research. From 2011 till the fifth anniversary the number of Wii Fit-balance related papers has shown an exponential increase [1,2,4-42].

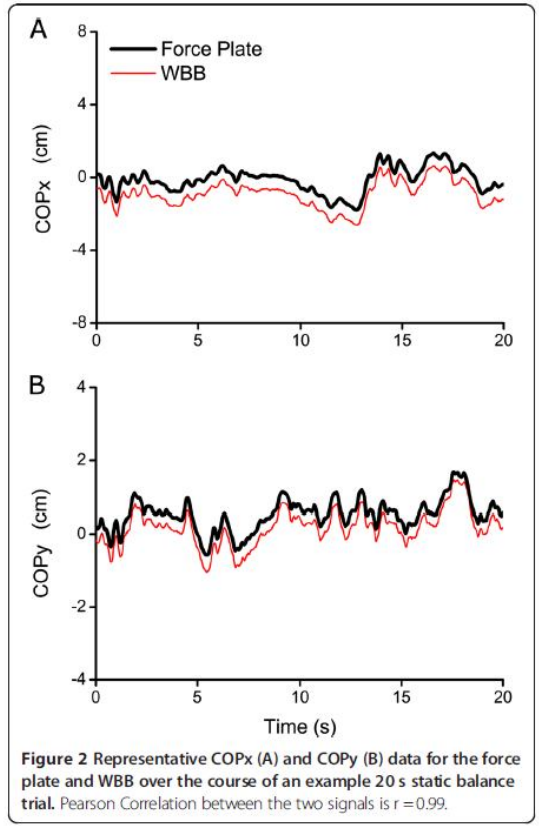


Figure 2 Representative COPx (A) and COPy (B) data for the force plate and WBB over the course of an example 20 s static balance trial. Pearson Correlation between the two signals is r = 0.99.

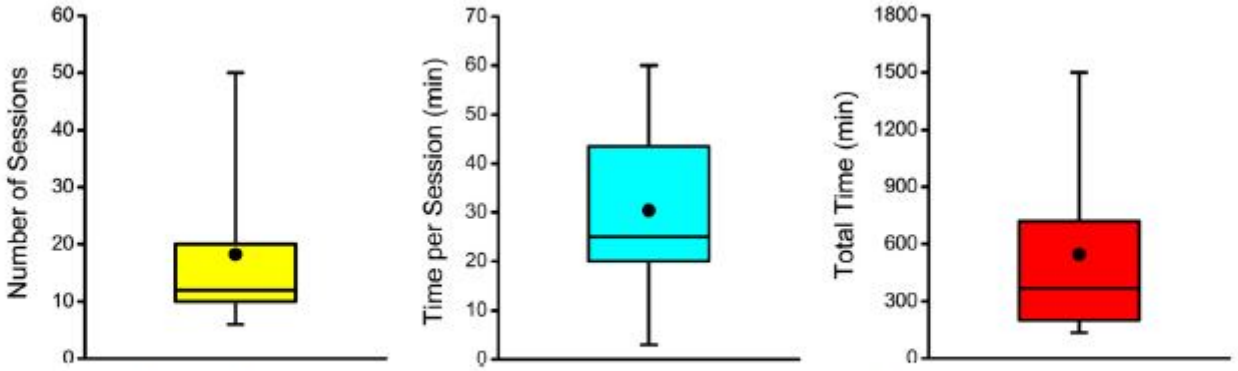


Figure 4 Wii Fit Intervention Dosing Parameters. Box and whisker plots representing the 95th percentile (whiskers), interquartile range (box), mean (black circle) and median (black line) data for the various dosing parameters of Wii Fit interventions [1,2,4,7,10,15,17-19,21,22,27-31,34,36].

Goble y col., 2014)

Baltaci y col., 2012. Comparison between Nintendo wii fit and conventional rehabilitation on functional performance outcomes after hamstring ACL reconstruction; prospective, randomized, controlled, double blind clinical trial. Knee Sur. Sports Traumatol. Arthroscosc. 2012 Apr. 29

Deutsch y col., 2011. Stroke rehabilitation.

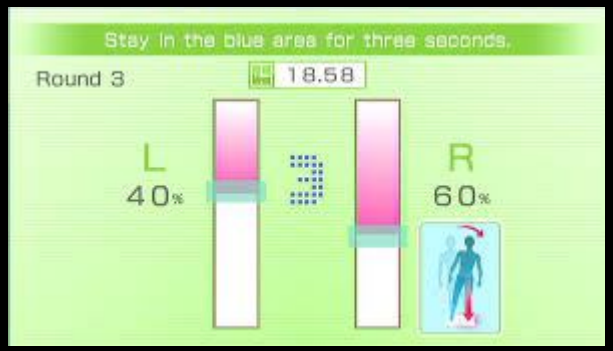
Taylor y col., 2011. Activity-promoting gaming systems in exercise and rehabilitation.

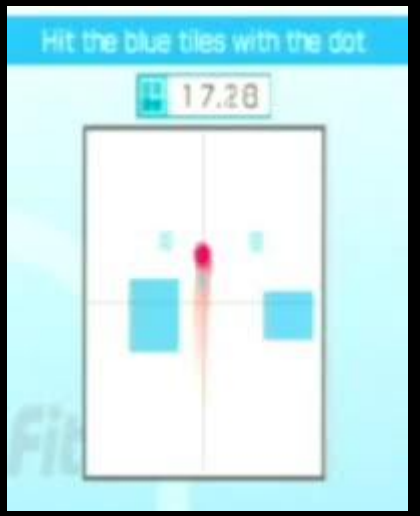
http://wiihabilitation.co.uk/

http://www.rewiire.org.uk/


Centro de gravedad (CG)
¡Qué maravilla!
¡Tu centro de gravedad está perfectamente centrado!
Tu CG
Izda.
50.0%
Dcha.
50.0%


Da 20 pasos en el sitio
8
I
D
WiiFit
www.guiasnintendo.com


Stay in the blue area for three seconds.
Round 3
18.58
L
40%
R
60%


Hit the blue tiles with the dot
17.28


15 mph
Misses 0
0:26,01


Left: 69
45 pts
+9


レベル3
44


EXIT 03
THE FUTURE
NEXT EXIT

VIDEO 1

VIDEO 2


ESKERRIK ASKO!!