8. Bibliography

Ahmad, N., Boota, M.W., and Masoom, A.H. (2014) Smart Phone Application Evaluation with Usability Testing Approach. *Journal of Software Engineering and Applications.* 7(1) pp. 1045-1054.

Alavifar, A., Karimimalayer, M., and Anuar, M.K. (2012) Structural equation modelling vs multiple regression: the first and second generation of multivariate techniques. *Engineering Science and Technology: An International Journal*. 2(2), pp. 326-329.

Al-Fedaghi, S. (2011) Developing Web Applications. *International Journal of Software Engineering and its Applications*. 5(2) pp. 57-68.

Android (2017a) *Android Activity Lifecycle* [Internet]. Available from:

https://developer.android.com/reference/android/app/Activity.html [Last accessed 31st January 2017].

Android (2017b) *Building Your First App* [Internet]. Available from: https://developer.android.com/training/basics/firstapp/index.html [Last accessed 19th January 2017].

Android (2017c). Transmitting Network Data Using Volley [Internet]. Available from https://developer.android.com/training/volley/index.html [Accessed 30th June 2017].

Android (2017d) *Adding Voice Capabilities* [Internet]. Available from https://developer.android.com/training/wearables/apps/voice.html [Accessed 25th July 2017].

Apache (2017) XAMPP Apache + MariaDB + PHP + Perl [Internet]. Available from https://www.apachefriends.org/index.html [Accessed 30th June 2017].

Arnhold, M., Quade, M., and Kirch, W. (2014) Mobile Applications for Diabetics: A Systematic Review and Expert-Based Usability Evaluation Considering the Special Requirements of Diabetes Patients Aged 50 Years or Older. *Journal of Medical Internet Research.* 16(4).

Balkar, K. (2013) Tutorial #28: Implement SHA1 and MD5 hashing in Android [Internet]. Available from https://karanbalkar.com/2013/05/tutorial-28-implement-sha1-and-md5-hashing-in-android/ [Accessed 30th June 2017].

Baresi, L., and Pezze, M. (2006) An Introduction to Software Testing. Electronic Notes in Theoretical Computer Science. 148(1), pp. 89-111.

Bhatti, T. (2007) Exploring Factors Influencing the Adoption of Mobile Commerce. *Journal of Internet Banking and Commerce*. 12 (3), pp. 1-13.

Bhosale, S.T., Patil, T., and Patil, P. (2015) SQLite: Light Database System. International Journal of Computer Science and Mobile Computing. 4(4), pp. 882-885.

Blundell, J.E., Caudwell, P., and Finlayson, G. (2012) Role of resting metabolic rate and energy expenditure in hunger and appetite control: a new formulation. *Disease Models and Mechanisms*. 5(5), pp. 608-661.

Borreli, L. (2014) *Food Insecurity: Why 59% of College Students May Suffer from Malnutrition* [Internet]. Available from: http://www.medicaldaily.com/food-insecurity-why-59-college-students-may-suffer-malnutrition-268109 [Last accessed 19th January 2017].

Boseley, S. (2015) *Poor diet 'biggest contributor to early deaths across the world'* [Internet]. Available from: https://www.theguardian.com/society/2015/sep/11/poor-diet-biggest-contributor-early-deaths-world-study [Accessed 13th February 2017].

Bray, G.A., and Popkin, B.M. (2014) Dietary Sugar and Body Weight: Have We Reached a Crisis in the Epidemic of Obesity and Diabetes? *American Diabetes Association*. 37(4), pp. 950-956.

Brown, D. M. (2011) *Communicating Design: Developing Web Site Documentation for Design and Planning* (2nd ed). New Riders Press, Berkeley, California.

Brown, J. (2014) How Connectivity Motivates Behaviour Change: Gamification as an Effective Social Media Platform for BC QuitNow Services. Professional Communication Thesis.

Buckley, P. and Doyle, E. (2016) Gamification and Student Motivation. *Interactive Learning Environment*. 24(6), pp. 1162-1175.

Burke, L.E., Wang, J., and Sevick, M.A. (2011) Self-Monitoring in Weight Loss: A Systematic Review of the Literature. *Journal of the American Dietetic Association*. 111(1), pp. 92-102.

Calculator.net (2017) Calorie Calculator [Internet]. Available from: http://www.calculator.net/calorie-calculator.html [Accessed 29th March 2017].

Cecchini, M., Sassi, F., Lauer, J.A., Lee, Y.Y., Guajardo-Barron, V., and Chisholm, D. (2010) Tackling of unhealthy diets, physical inactivity, and obesity: health effects and cost-effectiveness. *Lancet*. 376(1) pp. 1775-1784.

Chan, R.S.M., and Woo, J. (2010) Prevention of Overweight and Obesity: How Effective is the Current Public Health Approach. *International Journal of Environmental Research and Public Health*. 7(3), pp.765-783.

Chaplot, V. (2016) Cache Memory: An Analysis on Performance Issues. International Journal of Advance Research in Computer Science and Management Studies. 4(7), pp. 26-28.

Cisco. (2016). Global Mobile Data Traffic Forecast Update, 2015–2020 White Paper [Internet]. Available from: http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html. [Accessed 6th March 2017].

Cook, J. (2016) *The Challenge of Gamification: Advice on How To Quickly Create Engaging Learning* [Internet]. Available from: https://www.trainingjournal.com/articles/news/challenge-gamification-advice-how-quickly-create-engaging-learning [Last accessed 19th January 2017].

Cugelman, B. (2013) Gamification: What It Is and Why It Matters to Digital Health Behaviour Change Developers. *Journal of Medical Internet Research Serious Games*. 1(1).

Davis, F.D., Bagozzi, R.P., and Warshaw, P.R. (1989) User Acceptance of Computer Technology: A comparison of two theoretical models. *Management Science*. 35(8), pp. 982-1003.

Deitterich, T.G. (1998) Machine Learning – Special issue on applications of machine learning and the knowledge discovery process. *Journal of Machine Learning*. 30(2), pp. 1-12.

Deliens, T., Clarys, P., Bourdeuadhuij, I.D., and Deforche, B. (2014) Determinants of eating behaviour in university students: a qualitative study using focus group discussions. *BMC Public Health*. 14(53), pp. 1-12.

Deshpande, S., Basil, M.D., and Basil. D.Z. (2009) Factors Influencing Healthy Eating Habits Among College Students: An Application of the Health Belief Model. *Health Marketing Quarterly*. 26(2), pp.145-164.

Dixon, A. (2008) Motivation and Confidence: What Does It Take To Change Behaviour? *The King’s Fund*.

Domingos, P. (2012) A few useful things to know about machine learning*. Communications of ACM*. 55(10), pp. 1-9.

Edwards, E.A., Lumsden, J., Rivas, C., Steed, L., Edwards, L.A., Thiyagarajan, A., Sohanpal, R., Caton, H., Griffiths, C.J., Munafo, M.R., Taylor, S., Walton, R.T. (2016) Gamification for health promotion: systematic review of behaviour change techniques in smartphone apps. *BMJ Open.* 2016(6), pp. 1-9.

Eisingerich, A.B. and Bell, S.J. (2008) *Customer Education Increases Trust* [Internet]. Available from http://sloanreview.mit.edu/article/customer-education-increases-trust/ [Accessed 6th March 2017].

Ferretti, F. (2015) Unhealthy Behaviours: An International Comparison. *Public Library of Science: PLOS ONE*. 10(10), pp. 1- 15.

Field, A. (2009) Discovering Statistics Using SPSS. 3rd ed. Sage, London.

Fielding, A. (2007) *Cluster and Classification Techniques for the Biosciences*. Cambridge University Press, Cambridge.

Food and Drink Federation (2017) *Reference Intakes (previously Guideline Daily Amounts)* [Internet]. Available from: http://www.foodlabel.org.uk/label/reference-intakes.aspx [Accessed 27th March 2017].

Frankenfield, D., Roth-Yousey, L., and Compher, C. (2005) Comparison of predictive equations for resting metabolic rate in healthy nonobsese and obese adults: a systematic review. *Journal of the America Diet Association*. 105(5), pp. 775-89.

Ganasegeran, K., Al-Dubai, S.R., Quershi, A.M., Al-abed, A.A., Rizal, A.M., and Aljunid, S.M. (2012) Social and Psychological Factors Affecting Eating Habits Among University Students in a Malaysian Medical School: A Cross-Sectional Study. *Nutritional Journal*. 11(48), pp. 1-7.

Garrett, J.J. (2010) *The Elements of User Experience: User-Centered Design for the Web and Beyond* (2nd ed). New Riders Press, Berkeley, California.

Granado-Font, E., Flores-Mateo, G., Sorli-Aguilar, M., Montana-Carreras, X., Ferre-Grau, C., Barrera-Uriarte, M.L., Oriol-Colominas, E., Rey-Renones, C., Caules, I., and Satue-Gracia, E.M. (2015) Effectiveness of a Smartphone Application and Wearable Device for Weight Loss In Overweight or Obese Primary Care Patients: Protocol for a Randomised Controlled Trial. *BMC Public Health*. 15(531), pp. 1-6.

Grave, R.D., Centis, E., Marzocchi, R., El Ghoch, M., and Marchesini, G. (2013) Major Factors for Facilitating Change in Behavioural Strategies to Reduce Obesity. *Psychology Research and Behaviour Management*. 6(1), pp. 101-110.

Griskevicious, V., and Kenrick, D.T. (2013) Fundamental motivs: How evolutionary needs influence consumer behaviour. *Journal of Consumer Psychology*. 23(3), pp. 372-286.

Hair, J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2014) *Multivariate Data Analysis*. 7th ed. Essex, Pearson Education Limited.

Hamari, J., Koivisto, J., and Sarsa, H. (2014) Does Gamification Work? – A Literature Review of Empirical Studies on Gamification. *47th Hawaii International Conference on System Science*. pp. 3025-3034.

Hasan, B. (2015) Perceived irritation in online shopping: The impact of website design characteristics. *Computers in Human Behaviour*. 54(1), pp.224-230.

[Høgenhaug](https://www.smashingmagazine.com/author/peter-steen-hogenhaug/), P.S. (2012) *Gamification and UX: Where Users Win or Lose* [Internet]. Available from https://www.smashingmagazine.com/2012/04/gamification-ux-users-win-lose/ [Accessed 4th March 2017].

Holla, S. and Katti, M.M. (2012) Android Based Mobile Application Development and its Security. *International Journal of Computer Trends and Technology*. 3(3) pp. 486-490.

Holst, E., and Thyregod, P. (1999) A statistical test for the mean squared error. *Journal of Statistical Computation and Simulation*. 63(4), pp. 321-347.

Howlett, N., Trivedi, D., Troop, N.A., and Chater, A.M. (2015) What are the most effective behaviour change techniques to promote physical activity and/or reduce sedentary behaviour in inactive adults? A systematic review protocol. *BMJ Open*. 5(8) pp. 1-6.

Jahado, P. (2017) *MPAndroidChart* [Internet]. Available from https://github.com/PhilJay/MPAndroidChart [Accessed 25th July 2017].

Khaleghi, A., Ryabko, D., Mary, J., and Preux, P. (2016) Consistent Algorithms for Clustering Time Series. *Journal of Machine Learning Research*. 17(1), pp. 1-32.

Kinard, B.R., and Webster, C. (2011) Factors Influencing Unhealthy Eating Behaviour in US Adolescents. *International Journal of Consumer Studies*. 36(1), pp. 23-29.

King, D., Greaves, F., Exeter, C., Darzi, A. (2013) ‘Gamification’: Influencing Health Behaviours with Games. *J R Soc Med*. 106(1) pp. 76-78.

Landers, R.N. (2014) Developing a Theory of Gamified Learning: Linking Serious Games and Gamification of Learning. *Simulation & Gaming*. 45(6) pp. 752-768.

Lawanna, A. (2012) The Theory of Software Testing. Department of Information Technology, Faculty of Science and Technology

Leung, H.K., and Wong, P.W. (1997) A study of user acceptance tests. Software Quality Journal. 6(2), pp. 137-149.

Lima, A.C.S., Araujo, M.F.M., Freier de Freitas, R.W.J., Zanetti, M.L., Cesar de Almeida, P., and Damasceno, M.M.C. (2014) Risk Factors for Type 2 Diabetes Mellitus in College Students: Association with Sociodemographic variables. *Revista Latino-Americana de Enfermagem*. 22(3), pp. 484-490.

Lippevelde, W.V., Vangeel, J., De Cock, N., Lachat, C., Goossens, L., Beullens, K., Vervoort, L., Braet, C., Maes, L., Eggermont, S., Deforche, B., and Van Camp, J. (2016) Using a gamified monitoring app to change adolescent’s snack intake: the development of the reward app and evaluation design. *BMC Public Health.* 16(725), pp.1-11.

Lazaric, A., Ghavamzadeh, M., and Munos, R. (2016) Analysis of Classification-based Policy Iteration Algorithms. *Journal of Machine Learning Research*. 17(1), pp.1-30.

Lee, Y., and Kozar, K.A. (2012) Understanding of website usability: specifying and measuring constructs and their relationships. *Decision Support Systems*. 52(1), pp. 450-463.

Lister, C., West, J.H., Cannon, B., Sax, T., and Brodegard, D. (2014) Just a Fad? Gamification in Health and Fitness Apps. *Journal of Medical Internet Research Serious Games*. 2(2), pp. 1-12.

Locke, E.A. and Latham, G.P. (2002) Building a practically useful theory of goal setting and task motivation. *American Psychologist*. 57(9), pp. 705-717.

Lunenburg, F.C. (2011) Goal-Setting Theory of Motivation. *International Journal of Management, Business, and Administration*. 15(1), pp. 1-6.

Ma, L. Gu, L. and Wang. J. (2014). Research and Development of Mobile Application for Android Platform. *International Journal of Multimedia and Ubiquitous Engineering*. 9(4) pp. 187-198.

Maetschke, S.R., Madhamshettiwar, P.B., Davis, M.J., and Ragan, M.A. (2014) Supervised, semi-supervised and unsupervised inference of gene regulatory networks. *Briefings in Bioinformatics*. 15(2), pp. 195-211.

Malhotra, N.K., and Birks, D.F. (2006) *Marketing Research: An Applied Approach*. 2nd ed. Pearson Education Limited, Essex.

Mathworks (2017) *Unsupervised* *Learning* [Internet]. Available from: https://uk.mathworks.com/discovery/unsupervised-learning.html [Accessed 15th March 2017].

McNeill, P., and Chapman, S. (2005) *Research Methods*. 3rd ed. Routledge, New York.

Mellouk, A., and Chebira, A. (2009) *Machine Learning*. InTech, ISBN 978-3-902613-56-1.

Middelweerd, A., Mollee, J.S., van der Wal, C.N., Burg, J., and te Velde, S.J. (2014) Apps to Promote Physical Activity Among Adults: A Review and Content Analysis*. International Journal of Behavioural Nutrition and Physical Activity*. 11(97), pp. 1-9.

Mifflin, M.D., St Jeor, S.T., Hill, L.A., Scott, B.J., Daugherty, S.A., and Koh, Y.O. (1990) A new predictive equation for resting energy expenditure in healthy individuals. *The American Society for Clinical Nutrition*. 51(2), pp. 241 – 247.

Moreira, P.I. (2013) High-sugar diets, type 2 diabetes, and Alzheimer’s disease. *PubMed: Current Opinion in Clinical Nutrition and Metabolic Care*. 16(4) pp. 440-445.

Nielsen, J. (2012) *Usability 101: Introduction to Usability* [Internet]. Available from https://www.nngroup.com/articles/usability-101-introduction-to-usability/ [Accessed 4th March 2017].

Nutritionix (2017) Nutritionix [Internet]. Available from https://www.nutritionix.com/ [Accessed 30th June 2017].

Osamor, V.C., Adebiyi, E.F., Oyelade, J.O., and Doumbia, S. (2012) Reducing the Time Requirement of k-Means Algorithm. *Public Library of Science*. 7(12), pp. 1-26.

Park. H. J., and Bae, J.H. (2014) Study and Research of Gamification Design. *International Journal of Software Engineering and Its Applications*. 8(8) pp. 19-28.

Patton-Lopez, M.M., Lopez-Cevallos, D.F., Cancel-Tirado, D.I., and Vasquez, L. (2014) Prevalence and Correlates of Food Insecurity Among Students Attending a Midsize Rural University in Oregon. *Journal of Nutrition Education and Behaviour.* 46(3), pp.209-14.

Rakestraw, T.L., Eunni, R.V., and Kasuganti, R.R. (2012) The Mobile Apps Industry: A Case Study. *Journal of Business Cases and Applications*. 9(1) pp. 1-26.

Rao, V. (2012) *Freshdesk Launches Help Desk Gamification Platform, Freshdesk Arcade* [Internet]. Available from https://yourstory.com/2012/09/freshdesk-launches-help-desk-gamification-platform-freshdesk-arcade/ [Accessed 6th March 2017].

Robertson, M. (2010) *Can’t Play, Won’t Play [*Internet]. Available from http://kotaku.com/5686393/cant-play-wont-play [Accessed 6th March 2017].

Rhee, K.S. and Sigler, T.H. (2005) Science Versus Humankind: The Yin and Yang of Motivation Theory. *International Journal of Organisation Theory and Behaviour*. 8(3), pp. 313-342.

Richardson, A.S., Arsenault, J.E., Cates, S.C., and Muth, M.K. (2015) Perceived Stress, unhealthy eating behaviours, and severe obesity in low-income women. *Nutritional Journal*. 14(122), pp. 1-10.

Ryan, R.M. and Deci, E.L. (2000) Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychology Association*. 55(1), pp. 68-78.

Scandit (2017) *Integrate the Scandit Barcode Scanner SDK into your app* [Internet]. Available from http://docs.scandit.com/5.1/android/android-integrate.html [Accessed 25th July 2017].

Sherwani, Y., Ahmed, M., Muntasir, M., El-Hilly, A., Iqbal, S., Siddiqui, S., Al-Fagih, Z., Usmani, O., and Eisingerich, A.B. (2015) Examining the role of gamification and use of mHealth apps in the context of smoking cessation: a review of extant knowledge and outlook. Imperial College, London, pp. 1- 44.

Shelemy, L. (2017) *Behaviour Change Techniques in Smartphone Health Apps* [Internet]. Available from: http://www.nationalelfservice.net/treatment/self-management-treatment-and-prevention/behaviour-change-techniques-smartphone-health-apps/. [Accessed 19th January 2017].

Shilts, M.K., Horowitz, M., and Townsend, M.S. (2004) Goal Setting as a Strategy for Dietary and Physical Activity Behaviour Change: A Review of the Literature. *The Science of Health Promotion*. 19(2), pp. 81-93.

Skogberg, B. (2010) Android Application Development – A Guide for the Intermediate Developer. Computer Science Thesis. Malmo University.

Styles, S. (2017) *50-30-20 Diet Plans* [Internet]. Available from http://www.livestrong.com/article/317610-50-20-30-diet-plans/ [Accessed 25th July 2017].

Taitano, M.C., and Smith, V. (2015) Eating Habits in College [Internet]. Available from: https://rampages.us/healthuniv200/2016/10/12/eating-habits-in-college/ [Accessed 19th January 2017].

Tanton, J., Dodd, L.J., Woodfield, L., and Mabhala, M. (2015) Eating Behaviours of British University Students: A Cluster Analysis on a Neglected Issue. Hi*ndawi Publishing Corporation, Advances in Preventive Medicine*. 2015, pp.1-8.

Thompson, S.K. (2012) *Sampling*. 2nd ed. Wiley Series in Probability and Statistics, Canada.

Tutorials Point (2017) System Testing [Internet]. Available from https://www.tutorialspoint.com/software\_testing\_dictionary/system\_testing.htm [Accessed 30th June 2017].

Usability.gov (2013) Wireframing [Internet]. Available from: https://www.usability.gov/how-to-and-tools/methods/wireframing.html [Accessed 4th March 2017].

Uyanik, G.K., and Guler, N. (2013) A study on multiple linear regression analysis. *Procedia – Social and Behavioural Sciences.* 106(1), pp. 234-240.

Varian, H.R. (2014) Big Data: New Tricks for Econometrics. *Journal of Economic Perspectives*. 28(2), pp. 3-28.

Walz, A. (2016) Gamification: The Science and Software to Make You More Productive [Internet]. Available from https://zapier.com/blog/gamification-apps/ [Accessed 6th March 2017].

Wilson, G.T., Bhamra, T., and Lilley, D. (2015) The Considerations and Limitations of Feedback as a Strategy for Behaviour Change. *International Journal of Sustainable Engineering*. 8(3), pp. 185-196.

Wodtke, C., and Govella, A. (2009*) Information Architecture: Blueprints for the Web.* (2nd ed). New Riders Press, Berkeley, California.

Yanez, C. (2014) Create a Basketball Free Throw Game with Unity [Internet]. Available from: https://code.tutsplus.com/tutorials/create-a-basketball-free-throw-game-with-unity--cms-21203 [Accessed 5th March 2017].

Young, S. (2014) Healthy Behaviour Change in Practical Settings. *The Permanente Journal*. 18(4), pp. 89-92.

Zhao, J., Freeman, B., and Li, M. (2016) Can Mobile Phone Apps Influence People’s Health Behaviour Change? An Evidence Review. *Journal of Medical Internet Research*. 18(11), pp. 1-12.

Zhu, F., Bosch, M., Woo, I., Kim, S.Y., Boushey, C.J., Ebert, D.S., and Delp, E.J. (2010) The Use of Mobile Devices in Aiding Dietary Assessment and Evaluation. *IEEE Journal of Selected Topics in Signal Processing*. 4(4), pp. 756-766.

**App Images**

Congerdesign (2017) Raspberries [digital image]. Available from https://pixabay.com/en/raspberries-berries-fruits-fruit-2431029/ [Accessed 25th July 2017].

Jill111 (2017) *Cherries* [digital image]. Available from https://pixabay.com/en/cherries-bowl-pink-fruit-breakfast-2402449/ [Accessed 25th July 2017].

Jony (2017) *Book* [digital image]. Available from https://thenounproject.com/search/?q=diary&i=879647 [Accessed 25th July 2017].

Kovyazin, A. (2017) *Sugar Cubes* [digital image]. Available from https://thenounproject.com/search/?q=sugar%20cube&i=579820 [Accessed 25th July 2017].

Pezibear (2017) *Strawberry* [digital image]. Available from https://pixabay.com/en/strawberries-red-frisch-ripe-1398159/ [Accessed 25th July 2017].

Soorelis (2017) *Sugar* [digital image]. Available from https://pixabay.com/en/eat-sugar-calories-food-sweet-567451/ [Accessed 25th July 2017].