## Dr DAVID FARRELL

## PERSONAL INFORMATION

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WORK EXPERIENCE

Game Development Lecturer & Researcher Aug 2013 - present

Glasgow Caledonian University As a lecturer, I have significant freedom to carve a role suitable for myself. I am drawn towards making things and in my time at the university, I have led several high profile development projects with budgets ranging from €11k to £2.2m. My squad of agile developers and I have created web and mobile apps as well as create award winning Serious Games aimed at end users ranging from international diplomats to school children. I've developed novel HCI evaluation techniques and co-authored over two dozen related papers. I have also organised industry events, given dozens of international talks, led the development of our game design undergraduate degree and have developed modules covering a wide range of design related topics (e.g. Game Studies, Level Design, Serious Game Design, User Interface Design, Preproduction, and Development) alongside supervising undergraduate and postgraduate dissertations.

2009 - present Design Consultant

I offer private videogame design consultancy to commercial game studios. Most recently I have been Freelance credited with contributions to 2019's BAFTA award winning game Observation, Scottish BAFTA award winning Stories Untold, and the Channel 4 published game Party Pugs.

> Sept 2009 - May 2013 Part Time Lecturer & PhD Student

GCU During this time I was working on my PhD as well as teaching undergraduate modules.

> Research Assistant Jan 2007 - Jan 2010

City, University of London I lead the development of Serious Games about microbes, hygiene, and antibiotics as part of a large EU project (e-Bug). I managed two artists on this project and worked closely with subject experts, school teachers and pupils to design two educational Serious Games for which I was also the developer.

2001 - 2007 (Co)Founder & Software Developer

Paidia Ltd & Business Playground Ltd I worked as a web software engineer for the first two years of my career before my side-business as a freelancer became demanding and I founded Ltd company to help me scale. At its peak, I was managing 5 sub-contractors under the name Paidia Ltd for clients ranging from magazines and universities to the Scottish Government. I provided full stack services from front end design to back end database architecture and web server management. I later co-founded an Educational Game business that provided simulation games for Scottish schools.

**EDUCATION** 

2020 Glasgow Caledonian University

PhDAn Adaptive Cognitive Walkthrough Method to Evaluate Serious Game Design

> My PhD focused on the integration of psychological theories with design practice. My main contribution is a novel HCI technique for designers to use when real-world tests are not available.

2005 Glasgow Caledonian University

Pg Dip My postgraduate studies filled gaps in my knowledge about design and user centred development. *Informatics* 

> Strathclyde University 2001

BSc Hons My undergraduate studies gave me a technical foundation that I benefit from even though I have worked more in a design role in recent years. Computer

Science

## KEY PROJECTS

2017-2022

Engaging Adolescents in Changing Behaviour

National Institute for Health Research As Co-Investigator, I lead the digital intervention work package. I am responsible for £330k of this project and lead the agile design and development of the digital aspects of this complex diet and physical activity intervention. Working closely with young people and experts in behaviour change at the University of Southampton's MRC Unit, we have developed methods of co-design that we use to identify the values and desired experiences of adolescents. Our app, LifeLab+, is designed to appeal to these values by offering a social experience with a rich storyline that allows our users to lead their own health behaviour change rather than having one foisted upon them by adults.

£2.2m

2019 SUSFANS

EU Horizon

We were asked to help deliver a novel data visualiser for a Horizon project on sustainability in Europe. My team of developers and I were able to meet with the project team, identify a viable strategy, and successfully develop and publish the web based interactive tool within one month allowing the original research team to meet their grant obligation.

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2017 - 2018 Gaming Climate Futures

Mellon Foundation Working with political scientists from Purdue University, Utrecht University and Oxford University, we designed an interactive day long futures experience that helps real-world climate negotiators understand the implications of their decisions. I was responsible for leading a team of students and staff who built the game-like component (Earth Remembers) of this mixed media project. We exhibited the experience at the Conference of Parties negotiations in Katowice and Bonn. Since then, we have been invited by the diplomats who played our game to run similar workshops for their governments.

£15k

€11k

2016-2018 LEVEL Project

EU Erasmus +

€230k

I was the Primary Investigator on this project that aimed to improve the mental maths skills of pupils across Europe. Working with a Serious Games company from Germany and teachers from Germany, Scotland, Portugal, and Greece we created a mobile game (Enchanted Crystals) that uses a novel gesture based input system and a Harry Potter style game world to help pupils across Europe practice basic arithmetic. We were awarded Best Mobile Game and 2nd Overall Prize at the 7th International Educational Games Competition.

2016-2017

Game On Project

EU Erasmus +

€50k

Working with school teachers across Europe, I helped research and identify best real-world practice for *using* games in the classroom. We publicised our findings by writing a public-facing book "Game Based Learning for Teachers".

HONOURS

2020

Advanced Commendation for *LifeLab*+

International Educational Games Competition As part of the "Engaging Adolescents in Changing Behaviour" project, I lead the development of a health app for teenagers. *LifeLab+* contains mini-games and playful exercise and diet support, and was awarded an Advanced Commendation award in September 2020. The app is novel in its class for being data driven with analytics being used to support an agile development process. Most recently we have responded to the Covid-19 pandemic by adding masks to in-app artwork and by adding an extensive at-home exercise feature.

2019

Best Mobile Game / 2nd Prize Overall for Enchanted Crystals

International
Educational
Games
Competition

My maths game *Enchanted Crystals* won this prize for solving a real-world problem for multiple stakeholders. Young people enjoy the playful interface method and the fictional setting of the game but teachers enjoy being able to control the difficulty of the lessons in the game.

2019

Finalist for *Earth Remembers* 

International Educational Games Competition In 2017 we worked on a facilitated future-scenarios exercise for international decision makers as part of the Gaming Climate Futures project. I led the team of students and staff who developed the game-like interactive scenario. This project recieved significant international attention and was nominated for an award.

## PUBLISHED ARTICLES

Journal Articles Strömmer, S., Barrett, M., Woods-Townsend, K., Baird, J., Farrell, D., Lord, J., Morrison, L., Shaw, S., Vogel, C., Lawrence, W. and Lovelock, D., 2020. Engaging adolescents in changing behaviour (EACH-B): A study protocol for a cluster randomised controlled trial.

Strömmer S, Lawrence W, Shaw S, Simao SC, Jenner S, Barrett M, Vogel C, Hardy-Johnson P, Farrell D, Woods-Townsend K, Baird J. Behaviour change interventions: getting in touch with individual differences, values and emotions. Journal of Developmental Origins of Health and Disease. 2020 Jul 28:1-0.

Rose T, Barker M, Jacob CM, Morrison L, Lawrence W, Strömmer S, Vogel C, Woods-Townsend K, Farrell D, Inskip H, Baird J. A systematic review of digital interventions for improving the diet and physical activity behaviors of adolescents. Journal of Adolescent Health. 2017 Dec 1;61(6):669-77.

Farrell D, Moffat DC. Adapting cognitive walkthrough to support game based learning design. International Journal of Game-Based Learning (IJGBL). 2014 Jul 1;4(3):23-34.

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de Quincey E, Kostkova P, Jawaheer G, Farrell D, McNulty CA, Weinberg J, e-Bug Working Group, Goossens H, Adriaenssens N, De Corte S, Weinberg J. Evaluating the online activity of users of the e-Bug web site. Journal of Antimicrobial Chemotherapy. 2011 Jun 1;66(suppl\_5):v45-9.

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Conference Articles Moffat D, Farrell D, Gardiner B, McCulloch A, Fairlie F. A serious game to give students careers advice, awareness and action. InECEL2015-14th European Conference on e-Learning: ECEl2015 2015 Oct 1 (p. 396). Hatfield, UK: Academic Conferences and Publishing Limited.

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Farrell D, Moffat D. Cognitive Walkthrough for Learning Through Game Mechanics. In European Conference on Games Based Learning 2013 (p. 163). Academic Conferences International Limited.

Weerasinghe D, Lazareck L, Kostkova P, Farrell D. Evaluation of popularity of multi-lingual educational web games—Do all children speak English?. InInternational Conference on Electronic Healthcare 2010 Dec 13 (pp. 44-53). Springer, Berlin, Heidelberg.

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