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International Longevity Centre UK

Latest news

ILC Friday three

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Reversing the lens – a deep dive into digital doppelgängers



Imagine a version of yourself that grows, learns and evolves alongside you – a digital twin tethered to your life from birth to death. That's the premise explored by Ghislaine Boddington in the BBC World Service documentary Me and My Digital Twin, a fascinating and at times unsettling look into what it might mean to live in parallel with a digital self.

The use of digital twin technology isn't as sci-fi as it might sound. As Ghislaine Boddington explains, its roots stretch back to the Apollo 13 mission, when NASA used simulators to recreate the stricken spacecraft's conditions and help bring the crew home. That moment, 55 years ago, is now seen as the birth of digital twinning – a technique applied across industries from engineering to agriculture. The next step? Us.

From virtual hearts used in surgery to avatars modelling our movements in real time, the digital human twin is no longer theory. It's already helping athletes, medical professionals and even artists improve their performance, health and creativity. One standout example is Steve Levine, who set up the Living Heart Project to aid clincians treating heart conditions and who, this year, used a virtual replica of his brain to aid a groundbreaking operation on a tumour. Without that model, the surgery would have been far more invasive – and risky.

But with opportunity comes complexity. Digital twins thrive on data – personal, intimate and constantly flowing. Heart rate, gait, even emotional responses are measured, interpreted and fed back to us. This feedback loop can empower us – as Michael Geer from Humanity App explains, it can help slow ageing and boost wellbeing. But it can also overwhelm. For some, such as the Belgian fencer, Axelle Wasiak, the pressure of quantified self-tracking can be mentally exhausting.

And then there's the question of ownership. Who controls this data? Who protects it? As tech ethicist Dr Stephanie Hare highlights, without clear lines of accountability, we risk creating digital Frankensteins – versions of ourselves we can't manage or trust. If our twin continues after we die, does it still represent us? And who decides what happens to it?

Despite these questions, there's something undeniably hopeful about the vision presented in the podcast. Ghislaine Boddington describes her digital twin not as a clone, but as a co-creator – a life companion offering insight, support and a mirror into ourselves. For some, like artist Samantha Tauber and her avatar VNCCII, this twin can even become an empowering alter ego.

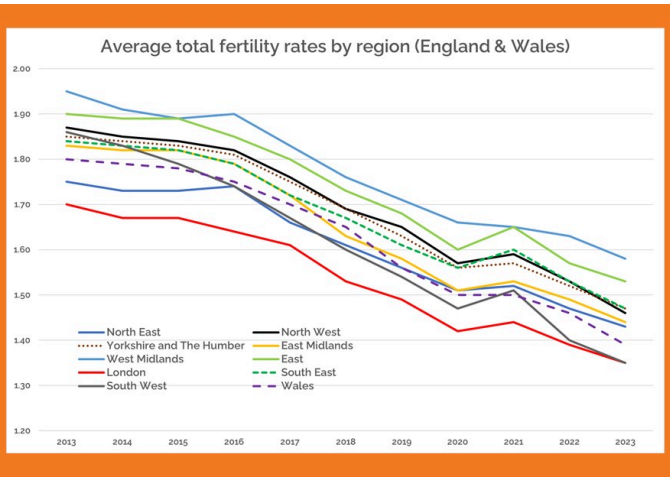
As with all technology, the challenge will be balance. We must ensure digital twins work for us, not the other way round. They must enhance our humanity, not erode it – a second self that helps us live better, not just differently. Relations have even soured at the very top – the US President is reportedly on the brink of divorcing his own 'digital twin', citing "irreconcilable algorithms" with one Mr E. Musk.

As the AI version of Leonardo da Vinci states in Ghislaine Boddington's programme, *"Such an invention could hold vast potential in understanding our own nature in medicine and in the pursuit of extending human life. Yet it also poses profound questions about identity, privacy, and the very essence of what it means to be human. As with all creations, it must be approached with wisdom and care."*

We've invited Ghislaine Boddington and others with knowledge and expertise in AI and machine learning to come and talk to us at the office on **Thursday 1 May 2025**. If you're an expert or interested in the ILC's work on the role of AI in long lives then please contact us via events@ilcuk.org.uk. And please click on the button below to listen to the *Me and My Digital Twin* podcast.

MORE HERE

Preparing for an ageing society - a call for evidence



"Population ageing should not be a surprise because we have known for a long time that our birth rate, our fertility rate, has been falling." Professor Sarah Harper, oral evidence to Lords Economic Affairs Committee, 25 March 2025

We're delighted that the UK House of Lords Economic Affairs Committee has recently launched an inquiry, Preparing for an Ageing Society. The inquiry will explore the impact of ageing on the UK economy, the opportunities and challenges the Government needs to consider given demographic trends, the policies necessary to adapt to this future, and the broader behavioural changes that may be required.

The peers kicked off with an evidence session with Professor Sarah Harper, who eloquently set out that population ageing is a well-anticipated trend driven by falling fertility rates and increasing life expectancy – particularly in higher-income countries like the UK.

In the UK, birth rates have been below replacement level since 1976, and yet the magic number in demographic discussions amongst policymakers remains "2.1" – the *replacement rate* needed for a generation to replace itself naturally. But as Sarah Harper touched upon in her evidence, these discussions are too narrow and short-sighted, leaving us unprepared and "sleepwalking" into an imbalance between working individuals and dependants, straining social and economic systems. It is difficult, if not impossible, to turn back the clock and, despite considerable efforts in some countries to boost birth rates, success has been limited, with low fertility appearing as a lasting trend.

We urgently need to consider how society – and governments in particular – can think differently to adapt effectively to birth rates as they currently are, instead of clinging to notions of what they perhaps should be. To ensure we can support older people financially and socially, while at the same time promoting intergenerational fairness, we must encourage healthier ageing, enable people aged 50–70 to stay economically active, and rethink public health and lifelong education.

The Committee has called for focused, evidence-based submissions with concrete, actionable policy recommendations by Sunday 27 April or more specifically **00:01** on **Monday 28 April 2025**. For more information, see here.

The ILC will, of course, be providing evidence to the Committee and will also be discussing these issues at a lunchtime webinar – Irreplaceable: adapting to lower birth rates and longer lives – on **Tuesday 29 April 2025**, kindly supported by the Institute and Faculty of Actuaries. To find out more and register for the webinar, please click the button below.

MORE HERE

Long lives and rare diseases - and ILC's new Senior Research Fellow

"As someone who's spent over a decade navigating life with achalasia largely unaided by structured healthcare support, I can confirm that the challenges deepen over time. Persistent symptoms – pain, difficulty swallowing, social issues, and daily life disruptions – don't disappear; they evolve. Without age-specific support, quality of life diminishes sharply. We must recognise that people with rare diseases aren't static; they grow older, and their healthcare needs grow with them."
Jack Eddy, ILC's Senior Research Fellow, April 2025



This week, we're delighted to introduce the newest member of the ILC team – Jack Eddy, who joins us as a Senior Research Fellow to lead on the ILC's UK Long Lives Index.

Jack brings over a decade of experience from across the public and voluntary sectors, with previous roles at West Suffolk Council, London Councils, and Suffolk County Council. He began his career in politics before moving into policy, with a focus on health, safeguarding, local government strategy, licensing, regulatory frameworks, and climate change. He's led a range of high-impact projects, including the creation of a pan-London Suicide Prevention Model and reforms to streetlighting in West Suffolk.

Like several on the ILC Team Jack loves football and is a lifelong Norwich City fan. His other passions lie in storytelling and research that promote inclusion and tackle inequality. He's also been a long-standing contributor to the Cross-Party Parliamentary Group for a Fit and Healthy Childhood, with reports on mental health, adverse childhood experiences and nutrition.

Importantly too, Jack is a powerful advocate for those living with less-prevalent conditions – shaped by his own experience with the rare oesophageal disease, achalasia. In this regard, he is also on the board of trustees for Achalasia Action, leading out their policy and advocacy work.

In this week's blog, Growing older with a rare disease, Jack shares a deeply personal account of growing older with a rare disease. He points out that while 1 in 17 people in the UK live with a rare condition – around 3.5 million people – the issue of ageing with these conditions remains underexplored in policy and practice. Advances in medicine mean more people with rare diseases are living longer, but little attention has been paid to how their needs evolve as they age.

Reflecting on his own journey – from misdiagnosis to surgery and the ongoing struggle for adequate support – Jack highlights how many patients are left to navigate complex symptoms alone. Too often, people focus only on the immediate demands of managing a condition, rather than being helped to plan for the future. The emotional toll, from anxiety to social isolation, only deepens with time.

Jack argues that initiatives like the UK Rare Diseases Framework, while welcome, still overlook longevity. There's a gap in understanding how chronic and rare conditions change as people age – how treatment, care, and support need to adapt accordingly. Without this, quality of life can deteriorate rapidly.

It's time, he says, for a new strategy – one that puts ageing at the centre of rare disease policy and brings together the voices of patient groups and ageing experts. Because people with rare conditions don't stay the same. They age – and their healthcare must age with them.

We're thrilled to have Jack on board and look forward to working with him. You can find more information about the UK Long Lives Index here and read Jack's blog via the button below.

MORE HERE

The Friday three newsletter is generally sent out once a fortnight.

To keep up-to-date with ILC events throughout the year, please continue to check our website on a regular basis.

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