

Acceptance speech on Induction to the Scottish Engineering Hall of Fame

James Watt Dinner, 7th October 2022

These days the **World Wide Web** provides the mechanism through which **modern communications, publishing, broadcasting, and commerce** are enabled. Many would rate it as the most revolutionary communications technology since Gutenberg pioneered printing with moveable type.

The technology behind the World Wide Web is called Hypertext – and my company – OWL – based in Edinburgh, were **lucky enough** to launch the world's first hypertext product 36 years ago this year, back in 1986.

And I say lucky because I believe I have been **very lucky throughout my life and career**.

I was first of all lucky to be **born in 1950**, pretty much the same time as the computer was being born.

I was lucky to be able to study **Computer Science at Heriot-Watt University**, just as computing courses were being first offered – neither Edinburgh nor Glasgow had them at the time.

I was then lucky to be hired by ICL at their development centre at **Dalkeith Palace**, an idyllic place to work for 8 years.

While at ICL I was lucky enough to be appointed in 1981 to be development manager for the **PERQ computer** – the world's first commercial graphics-based computer – which had been launched by 3RCC in Pittsburgh – and which exposed me to the exciting new world of **US technology start-ups**.

When I later, influenced by what I had seen, wanted to start up a company, I was so **very lucky** that ICL decided to **close their Dalkeith** operation – instantly creating a skilled team to help me start OWL, followed by a superb supply of excellent software engineers – people that we knew were really good.

Luckily, the **Scottish Development Agency** was really keen to support new technology start-ups – a fairly new initiative for them in the early eighties.

We started OWL in **1984**, luckily the same year that the **Apple Macintosh** was launched – and which changed the face of personal computers forever.

We were lucky to hit on a key new interactive **documentation and information technology** which seemed ideal for this new type of computer.

I was then very lucky to find a **Scotsman at Microsoft** who was ready to leave Microsoft and join us to set up our sales office in Seattle. The Personal Computer industry was based in the West Coast of the USA, and who were we to fight that. We became a **Seattle software publisher which just happened to be based in Edinburgh**.

We launched our product, Guide, in September 1986.

Then we had a weird bit of luck. Apple launched a program in **1987** which they called **HyperCard**, promoted it heavily, and gave it away for free.

Apple had only **5%** of the PC market – for the other **95%** if you wanted to try out this new hypertext technology that Apple was making so much noise about, you had to buy Guide from us.

Over the subsequent years we built on our technology, adding sophisticated features such as embedded scripting and video sequences, searching and cataloguing allowing documentation and publishing systems to be built on a massive scale.

We became the supplier of interactive service manuals for both **Ford** and **General Motors**, among a raft of blue-chip customers who wanted online publishing solutions.

By the time I met **Tim Berners-Lee**, in **November 1990**, he wanted a browser for his Web and had decided, as he describes in his book 'Weaving the Web' – that we had 'done the difficult bit' and all we needed to add was the internet.

The trouble was that in **1990**, not only did Tim's World Wide Web exist **only on one computer** in the world – the one in his own office – the internet wasn't available outside academic researchers. **Commercial businesses couldn't access it**. There was no market for us in doing this, and we passed.

We could easily have done it for a fee, but he hadn't been allocated any budget for his project.

My company was sold to **Panasonic in 1990** and went on to develop the software architecture for the DVD – the way you select scenes, trailers etc.

And I guess that was where my luck ran out. My vision for selling to Panasonic was that they were the ideal company to launch a **handheld electronic book** – the GameBoy was out by then – and I thought Panasonic could develop a device that would later turn into what we would today **recognise as a Kindle**.

The publicly funded non-commercial World Wide Web, took over the world from about 1994 and the then academic researcher Mark Andreessen at the University of Champaign Illinois provided the publicly funded browser.

And from then it went on to conquer the world.

But it was a **huge privilege** to be the **pioneer of a technology** that has changed the world, and it is an **enormous privilege** to be appointed to the **Scottish Engineering Hall of Fame**.

Thank you so very much for this recognition.

Ian Ritchie