Emily Harte

17330411

CS3012/CSU33012 - Software Engineering

Biography of Donal O'Mahony

Donal O'Mahony began his third level education in Trinity College Dublin, where he graduated with a first class honours B.A. in Engineering in 1981. He then was employed by the SORD Computer Corporation in Japan and Dublin. SORD, then a Japanese startup, aimed to overtake Apple as the leader in the development of micro-computers. In late 1982, he went to work with IBM Ireland and helped to launch the first IBM PC.He was recruited as a lecturer in Computer Science by Trinity College Dublin in 1984.

In 1988, when Local Area Networks were beginning to be used amongst consumers, he co-wrote a book with Brendan Tangey entitled "Local Area Networks and their Applications". The English version was published by Prentice-Hall. The Japanese version was published by Kaibundo Publishing. It was also translated into Polish and a low cost version was produced for the Indian market.[1] He completed a P.h.D. in the area of software reusability in 1990 at Trinity.[2] Around the same time, O'Mahony set up the Network and Telecommunications Research Group that contributed greatly to the establishment of the worldwide X.500 directory service.

His research group was very active in the development of areas such as novel security protocols, particularly Electronic Payments. From 1996 to 1999, he delivered seminars to audiences across Europe on Electronic Payment Systems. In 1997, O'Mahony and two of his research students wrote a book entitled "Electronic Payment Systems". This was published by Artech House. The book became a leading text in the area and was given a "Best Seller in Class" award by amazon.com in 2000. O'Mahony delivered courses on the Internet Telephony area during 1997 and 1998. This was during the early years of Voice-over-IP (VoIP) and the material he lectured about may one day be of historical interest.[3]

In 1998, O'Mahony was awarded a Fulbright Scholarship. He spent a sabbatical year at Stanford University in California. He completed research work there and also

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[1] <https://www.scss.tcd.ie/Donal.OMahony/, viewed 30th September 2019>

[2] <https://www.tcd.ie/research/profiles/?profile=domahony, viewed 30th September 2019>

[3] <https://www.scss.tcd.ie/Donal.OMahony/ , viewed 30th September 2019>

became involved in the technology entrepreneurial programme. He created a web start-up, LetterPost.com, in late 1998. The business plan for the start-up reached the final of the Stanford Entrepreneur's E-Challenge. LetterPost.com was acquired by the Escher Group in 2000. Also in 2000, O'Mahony was elected a fellow of Trinity College Dublin.[4]

O'Mahony was a founding director of the Centre for Telecommunications Value-Chain Research (CTVR) from 2004 to 2009. This centre based in Dublin allowed for collaboration on a huge scale between teams from eight third level institutions in Ireland. The centre accomplished a lot under O'Mahony's directorship including the publication of over 400 academic papers in journals across the world, and commercial licensing of research results.[5] In an interview with Silicon Republic in 2006, he was quoted as championing the centre as having "the potential to transform the Irish economy and make it very technology driven". [6] In 2008, the CTVR began a partnership with NEC Communication Systems, part of the Japanese technology company NEC Group, to do research in the area of all-optical networking, which was an emerging field at the time. The Irish Examiner quoted O'Mahony as saying that the "collaborative research will allow [them] to assemble world class research talent, which will ultimately lead to wealth generating economic activity downstream".[7]

In 2007, O'Mahony was part of a team that was granted €400,000 by Enterprise Ireland to bring their research to a commercial audience. They planned to make mobile phone calls cheaper for the general public by enabling voice calls to be made over broadband networks. The Irish Independent reported that O'Mahony and his team were looking for investors with a "strategic interest" in the area, such as large telecommunications companies. [8]

O'Mahony was part of a team that developed the Stratus System. The system uses mathematical algorithms to select the most cost-effective and environmentally friendly cloud computing services around the world. It was estimated that the Stratus system could reduce the cost of Cloud computing by almost half. O'Mahony was quoted as saying

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4 <https://www.scss.tcd.ie/Donal.OMahony/, viewed 30th September 2019>

5 Ibid

6 Gordon Smyth 2006, The Friday Interview: Donal O'Mahony, CTVR, Silicon Republic, viewed 2nd October 2019, <https://www.siliconrepublic.com/careers/the-friday-interview-donal-omahony-ctvr>

7 2008, CTVR enters partnership with NCOS at TCD, Irish Examiner, viewed 2nd October 2019, <https://www.irishexaminer.com/breakingnews/business/ctvr-enters-partnership-with-ncos-at-tcd-350817.html>

8 Laura Noonan 2007, Cheaper calls on mobiles is the target for TCD team, Irish Independent, viewed 4th October 2019, <https://www.independent.ie/business/irish/cheaper-calls-on-mobiles-is-the-target-for-tcd-team-26303549.html>

that the system would "allow companies to procure their cloud computing service in a way that best serves their priorities". The research that led to Stratus was published in the journal IEEE: Transactions of Cloud Computing. It was the first issue of the journal.[9]

O'Mahony was the leader of a project conducted in Trinity College Dublin which aimed to make the cryptocurrency Bitcoin more transparent. They aimed to use the ledger, a publicly available database of all transactions made in Bitcoin, to reveal information about the virtual currency. [10] O'Mahony said the team "wanted to develop systems that would give a 'regulator' a degree of visibility on the flows of Bitcoin in the same way that central banks have this visibility over normal currencies". The team wished to build a 'credit check' database to combat fraud and illegal transactions made with Bitcoin. Their research and microscopic examination of the Bitcoin Blockchain shed light on several high-profile Bitcoin fraud cases from around the world.[11]

In an info-graphic presented by bitcoinexaminer.org, O'Mahony is part of team that is ranked as the seventh most likely to be Satoshi Nakamoto, the enigmatic inventor of Bitcoin. The Crypto Mano group, of which O'Mahony was a member, also consists of Hitesh Tewari, Michael Pierce and Michael Clear. All members of the group have connections to Trinity College Dublin. According to the infographic, the Crypto Mano group have a two out of three 'bitcoin' likelihood of being Satoshi Nakamoto. The identity of the inventor has been one of the Bitcoin community's greatest mysteries.[12]

According to his homepage, O'Mahony is currently the course director in the MSc in Computer Science Programme at Trinity College Dublin. He lectures in modules such as Entrepreneurship and High Tech Venture Creation and Sustainable Computing. Both of these modules are aimed at advanced undergraduate or postgraduate level. Due to his interest in computer network security, he is also an external examiner for the MSc in Forensic Computing & Cybercrime Investigations Programme at University College Dublin.[13]

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[9] Seán Duke 2014, Cloud computing costs to fall thanks to TCD and IBM Dublin, Science Spinning, 5th October 2019, <https://sciencespinning.com/2014/01/15/cloud-computing-costs-to-fall-thanks-to-tcd-and-ibm-dublin/>

[10] 2015, TCD researchers to study ways of making Bitcoin more transparent, RTÉ, viewed 6th October 2019, <https://www.rte.ie/news/business/technology/2015/0203/677518-tcd-researchers-to-study-ways-of-making-bitcoin-more-transparent/>

[11] 2015, Trinity Students are hoping to fix Bitcoin's biggest flaw, Newstalk, viewed 7th October 2019, <https://www.newstalk.com/business/trinity-students-might-fix-bitcoins-biggest-flaw-671958>

[12] <bitcoinexaminer.org>, <https://www.scss.tcd.ie/Donal.OMahony/bitcoininfographic.jpg>

[13]< https://www.scss.tcd.ie/Donal.OMahony/>