DEC at 60 interview - John Leng

Summary

John Leng, interviewed for the 60th anniversary of Digital Equipment Corporation's (DEC) UK office, shared his journey from a civil service apprenticeship at Harwell to becoming a key figure in DEC's early success. Leng highlighted DEC's impact on the mini-computer market, coining the term "minicomputer" in 1965. He discussed DEC's role in scientific and engineering applications, particularly at Chalk River Nuclear Laboratories. Leng also touched on the future of technology, emphasizing Al's potential and the importance of quantum computing, particularly in pattern recognition and intelligence services. The discussion explores the evolution of technology from the 1960s to 2024, focusing on the transition from mini-computers to quantum computing and AI. John Leng reflects on his experience founding DEC UK in 1964, emphasizing the importance of partnerships and the shift from in-person marketing to online distribution. He highlights Nvidia's significant role in modern technology, comparing it to DEC's past achievements. Leng also discusses the potential of quantum computing in communications, particularly entanglement, which could revolutionize speed and security. Finally, he advises young tech companies to prioritize partnerships and acknowledges the challenges of consulting without adequate resources.

Outline

John Leng's Early Life and Education

- Gavin Clark introduces himself and the purpose of the interview, which is part of the 60th anniversary of DEC's first office in the UK.
- John Leng shares his full name, birthplace (Bromley, UK, 1934), and early life during the Battle of Britain.
- John describes his family's evacuation to Cornwall and his schooling in Overton, where he took a civil service exam and was accepted into Harwell Atomic Energy Research Establishment.
- John details his education at Oxford Technology, Art and Commerce College, and his professional engineering qualifications.

John's Parents and Early Schooling

• John talks about his parents' occupations: his father was in construction and shipbuilding, and his mother became a seamstress.

- John recounts the family's evacuation to Cornwall and their primitive living conditions during the war.
- John mentions his early schooling at Holston Holliston Grammar School and his transfer to a more supportive school in Overton.
- John shares his academic successes and failures, particularly in French, which prevented him from attending university.

Apprenticeship at Harwell

- John explains the civil service apprenticeship he secured, which allowed him to study at Oxford and work at Harwell.
- He describes his first year at Harwell, where he learned machine tools and was assigned to the electronics division.
- John discusses the early use of computers at Harwell, including a computer made with decatrons and relays.
- He mentions his transfer to Chalk River Nuclear Laboratories in Canada and his involvement in the development of nuclear power reactors.

Introduction to DEC and Early Career

- John recounts his first experience with DEC's PDP-1 computer at Chalk River and its use in real-time data input and computation.
- He describes his role in introducing DEC's PDP-5 computer to Europe and its successful demonstration at various labs.
- John explains his decision to join DEC after considering other job offers, including one from Yale.
- He details his initial role at DEC, including setting up the Canadian subsidiary and demonstrating the PDP-5 in Europe.

Establishing DEC's UK Subsidiary

- John discusses the decision to establish a DEC office in the UK, driven by customer interest and the need for local support.
- He describes the initial challenges, including finding office space in Reading and the cultural differences from his previous experiences in the US and Canada.
- John shares his first hires, including Hillary Cheek, who became the first secretary, and Geoff Shingles in Sales, amongst others.
- He recounts the growth of the UK office, including the move to larger facilities and the expansion of the team.

Challenges and Successes in the UK

- John talks about the competitive landscape in the UK, including DEC's focus on the scientific market and the OEM market.
- He describes the importance of the OEM market in broadening DEC's reach and the close engineering relationships with OEM partners.
- John shares his experiences of traveling extensively to support the UK office and the challenges of balancing work and family life.
- He reflects on the emotional attachment to the UK and the impact of his work on the local community and DEC's global operations.

John's Reflections on DEC's Impact

- John discusses the importance of DEC's minicomputers in the scientific and engineering communities and their impact on productivity and innovation.
- He compares DEC's role in the 1960s to Nvidia's role today in the AI market, highlighting the technological advancements and their broader societal impact.
- John reflects on the potential risks and benefits of AI, including the political and ethical considerations.
- He shares his thoughts on the future of technology, including the potential of quantum computing and its applications in fields like astronomy and intelligence.

DEC Systems and Quantum Computing

- Gavin inquires about the spiritual connection between DEC's Systems from the past and the current goals of quantum computing and AI.
- John mentions the natural progression of computer hardware development and compares Nvidia's advancements to DEC's achievements.
- John expresses regret about not investing in Nvidia stock earlier, highlighting its importance in the current technological landscape.

Hypothetical 1964 and 2024 Scenarios

- Gavin asks John what they would do differently if they were starting over in 1964, considering the non-existence of quantum computing and AI.
- Gavin also asks about the areas John would be excited about in 2024, given their background in mini computers.
- John mentions chip technology and video sales as areas of interest, noting the presence of competitors and the importance of staying ahead.

Marketing and Technology Dissemination

- John discusses the differences in marketing technologies today compared to the past, emphasizing the broader dissemination of knowledge.
- John explains that people are now more aware of technologies online, making it easier to distribute and sell them.
- Gavin and John discuss the importance of personal connections and visits in the past, contrasting it with the current online environment.

Setting Up a New Office in 2024

- Gavin asks John about setting up a new office in the UK in 2024, considering the advancements in technology.
- John suggests finding a good distribution spot near London Airport and having technical support and training available online.
- John mentions the importance of real-time communication across different time zones to facilitate online operations.

Budget and Support for New Ventures

- Gavin recalls John starting the Reading office with a limited budget and asks if they would seek better funding today.
- John clarifies that they had significant support from DEC and faced more challenges with immigration paperwork than budget issues.
- John notes the excitement and opportunities that DEC provided, attracting many people to England for the venture.

Company Culture and Individual Contributions

- Gavin asks if companies still value an open culture and individual spirit, as DEC did in the past.
- John is unsure about the current culture in semiconductor companies but recalls selling mainframes to Intel, which led to chip design innovations.
- John expresses doubt about the need for individual contributions in the same way today, given the advancements in technology.

Future Technologies and Communications

- Gavin asks about other technologies that should be watched, beyond Nvidia, AI, and quantum computing.
- John mentions the importance of quantum computing in communications, particularly for security and distance communication in space.

• John explains the concept of entanglement in quantum computing, which could revolutionize communication by exceeding the speed of light.

Advice for Young Technology Companies

- Gavin asks for one piece of advice John would give to a young technology company today.
- John emphasizes the importance of partnerships, stating that working together with partners can lead to greater success.
- John advises companies not to go it alone, as partnerships can accelerate progress and achieve more collectively.

Reflections on Career and Final Advice

- Gavin asks for one piece of advice John would give to themselves in 1964.
- John expresses satisfaction with their past achievements and mentions the challenges of consulting without a budget and people.
- John advises their past self to retire and enjoy a new life, as the influence of a consultant is limited without proper resources.