

Benita Albert's Kai-Fu Lee Story - Part three

(As published in The Oak Ridger's Historically Speaking column on December 6, 2017)

This is the third and final installment of Benita Albert's story about Kai-Fu Lee, an Oak Ridge High School graduate who has gone on to become one of Time Magazine's 100 most influential people in the world. She has provided us with her personal perspective on one of her most amazing students. Enjoy this conclusion to Benita's story and gain even further insights into Kai-Fu Lee's life well lived.

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In the spring of 1990, Apple Computing made Kai-Fu Lee an offer he could not refuse though it meant he would have to leave his Assistant Professor position at Carnegie Mellon. He enjoyed teaching, mentoring graduate students and working with noted technologists and professors in the Computer Science Department, but the real world and applications of his science called. Kai-Fu recalled in his autobiography, "I was a fan (of Apple). I bought a Mac on the first day it hit the market. As a speech scientist, I was fascinated that the Mac had a pre-installed *Macin Talk*, which talked to me in robotic English."

Then Kai-Fu joined a team at Apple that ultimately increased speech recognition by a factor of 40. Kai-Fu advanced to the Manager of the Speech Recognition Team, a part of the Advanced Technology Group. In more corporate restructuring, and perhaps because of Kai-Fu's proposal on "How to Revive Apple through Interactive Media," he was appointed a director of a new Multimedia Department.

This department developed *Quick Time* virtual reality, still used in *Google Earth* and *Street View* as well as 360-degree real-estate website viewings. Another notable project he initiated would later be known to the public as *iTunes*. Kai-Fu was appointed a Vice-President at age 33, the youngest such appointment at the time.

Additional products such as *Apple Media Authoring Tool* and *Quick Draw 3D* were developed with his leadership.

After six years at Apple, Kai-Fu accepted a new position with Silicon Graphics (SGI), and though he stayed only two years, he revealed his talents as a technology seer. His work on Interactive TV via a separate set-top box would allow consumers to access film libraries, games, voting, banking, and shopping. His work in 3D graphics, to make the Internet livelier with on-line egos similar to the now famous "Avatar" 2009 movie, was developed in 1996-7.

Later Kai-Fu admitted that it was a "Project ahead of its time... we cannot measure success by what is cool and new, but by what users vote with their wallets."

In the spring of 1998, Kai-Fu was faced with having to market and sell his SGI projects to other competing tech companies in an attempt to save the jobs of 100 engineers with whom he had worked. Kai-Fu admits that the lessons learned at SGI were guidelines for his future pursuits. He took away important lessons of understanding user needs, focusing projects, and the multi-tasking requirements of a successful manager.

Not to be denied a corporate career and also to rebound from what he considered a leadership failure, Kai-Fu proceeded with his next venture. It was a call and job offer from Microsoft in 1998. That call was made by his former Carnegie Mellon grad school recommender, Dr. Rick Rashid, now a Microsoft researcher. Rashid told him that Microsoft research followed the Carnegie Mellon model and thus would be the perfect fit.

Kai-Fu was excited to learn that his new job would entail setting up a Microsoft research center in China, his father's original home country. Though a former Microsoft leader had proposed research centers should reach from 10 to 100 years into the future, Kai-Fu set the goal of Microsoft Research China as being deliverable to consumers in 3 to 5 years and that the projects be useful innovations.

The Center's logo was "Turning Ideas into Reality." Kai-Fu employed the user-needs lesson learned from his previous job, and that translated into Microsoft Research China being named "The Hottest Computer Science Lab" by the *MIT Technology Review* in 2001.

Later Microsoft Research China changed its name to Microsoft Research Asia, recruiting over an extended Southeast Asia region. Microsoft Research China's organizational design established six research teams: Internet Multimedia,

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Multimedia Computing, Image Computing, Multimodal User Interface, Natural Language, and Chinese Speech Recognition.

Here Kai-Fu not only served as the Managing Director of the Center but also the Project Leader on Chinese Speech Recognition because of understaffing issues. The teams quickly produced outstanding results, receiving high praise from Microsoft founder Bill Gates.

In 2000, Kai-Fu was appointed a Microsoft Vice-President of the .Net Department where he was to lead the development of an on-line Windows system incorporating wireless communication, intelligent appliances and new user interface. A series of corporate issues and the switch from research to product development left Kai-Fu feeling uncomfortable with the corporate culture.

He stayed in the Seattle headquarters for five years during which the mission of .Net was scuttled, and Kai-Fu was moved to speech and natural language technologies. He was to build a more powerful natural language engine that could go beyond search—again ahead of his time in developing an “intelligent assistant” for users.

His tasks seemed to continually change as Microsoft reset its marketing goals, asking him to leave search projects to develop Microsoft Vista in 2002. This project lasted more than two-years and was reset more than once because of staffing issues and also disagreements over implementation.

In addition, Kai-Fu was often consulted on issues related to the research and marketing efforts in China. His paper, “Making it in China,” was an attempt to explain how an international company can succeed. Kai-Fu included some of the basic principles of the paper in outside tech and business presentations, but he would later learn his thoughts were considered proprietary by Microsoft when the next step in his career was taken.

In July 2005, Kai-Fu told his Microsoft bosses that he was resigning to move to Google where he would develop Google China. Microsoft sued both Kai-Fu and Google. Their lawsuit claimed his move was a violation of their non-compete clause, and they proposed that corporate security was at risk, that this was intellectual piracy.

Kai-Fu describes this as one of the lowest points in his life, he simply wanted to return to a job similar to the position he first held at Microsoft but in this new and energetic company, Google. Microsoft wanted him barred from any work in the field of search engines as well as any corporate leadership in Chinese business strategies for at least one year.

During this time, Kai-Fu credits the ever-constant support of his family and a crack team of lawyers with keeping him positive and focused on making his case. National headlines such as “Microsoft and Google Fighting for the China Market” and “Microsoft and Google Feud over Top Exec” invaded what had previously been a relatively private life in science for Kai-Fu.

On September 13, 2005, a Seattle court judge ruled that Kai-Fu could begin work with Google, but he was to be excluded from work in search or language-related projects for a year. Four days later, Kai-Fu was in Beijing initiating Google China, setting up offices, recruiting staff, and developing public and government relation programs for his new company.

Details of this legal dispute can be further researched via numerous on-line sources. It was a very high profile case and well documented.

At Google, Kai Fu admired the casual, creative atmosphere of Google headquarters, and he adopted many of their employee services and practices in his China workplace. In particular, he greatly admired Google's policy that allowed workers a 20% worktime allotment to work on projects they personally wanted to pursue. One example of the benefit of this freedom was the creation of the now omniscient Gmail.

Also, Kai-Fu continued his language research. He worked on word grouping, a significantly challenging feature in the Chinese language, and the language processing speed vastly improved. He also led work on *Google Suggest* and *Google Music*.

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Google China's marketing success nearly doubled user interface to 31% by 2009. *Google: Maps, Mobile Maps, Mobile Search and Translate* all became number one in China.

After four years, Kai-Fu resigned his position as President of Google China. He knew that management was not what he wanted as his future.

And, the death of fellow Carnegie Mellon classmate, Randy Pausch, author of "The Last Lecture," deeply affected him and moved him to seek one more chance at "finding his way to making a difference." His focus changed radically. [Readers, if you have not experienced "The Last Lecture," here is a link to it: <https://www.cmu.edu/randyslecture/> I strongly recommend it to you!]

As Randy Pausch expressed, Kai-Fu also wanted his legacy not to be just self-directed accomplishments but an outward-looking and encouraging support system for others.

Thus, Kai-Fu would return to his roots, to his love for teaching/mentoring, and to research and technology applications supported with his business experience. He established Innovation Works, a venture to help young Chinese students start their own businesses and "to turn their innovative ideas into useful products."

He recalled Randy Pausch saying, "Are you spending your life on the right things? Because time is all you have." ("The Last Lecture"). Kai-Fu set about doing just what Randy Pausch indicated should be done.

So, Kai-Fu describes Innovation Works as his "dream company." The special projects developed are primarily in e-commerce, mobile Internet, and cloud computing. Innovation Works brings project ideas, engineers and venture capitalists together.

On the first day of operation more than 7,000 applicants' resumes were received. Kai-Fu now considers himself to be a "start-up founder and career coach."

He continues to travel and is a highly sought-after speaker. In 2013 *Time* magazine recognized him as one of the "100 Most Influential People in the World."

Kai-Fu was the June 2017 graduation speaker to the engineering college at his alma mater, Columbia University. His speech revealed the future of technology and its amazing new benefits to society, promoted the importance of engineering problem solvers and stressed the value of close human relationships transcending social media or other interfering forces.

Kai-Fu makes me proud to say that I was once his teacher. He, along with so many other outstanding and creative ORHS alumni, is making an important difference in the world.

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Thank you so much, Benita! You have set the bar high for other successful alumni from Oak Ridge schools. Yet, I have already been contacted regarding others we might feature. If any of you want to suggest an alumni of Oak Ridge schools that you believe has had an impact on the world please contact me by phone at 865-482-4224 or by email at draysmith@comcast.net.

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Kai-Fu Lee



Kai-Fu Lee named by Time Magazine among the top 100 most influential people in the world

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Kai-Fu Lee and his wife, Shen-Ling