COMPUTING FOR THE WHOLE WORLD

Tony Fadell, Apple iPod and iPhone inventor and Nest cofounder,
in conversation with Computer History Museum Historian John Markoff

Tony Fadell was a young computer designer who had worked at General Magic when he was hired as a contractor to design the first iPod. He went on to lead the hardware development of the first iPhone, and then left Apple to found Nest, a company that designed a connected thermostat and was sold to Google for $3.2 billion in 2014.

In a conversation with Computer History Museum historian John Markoff, Tony describes his experiences as an entrepreneur and inventor and speculates about where tech is headed in the future.

This discussion was part of the Exponential Center's iPhone 360 series. Coinciding with the 10th anniversary year of the iPhone launch in 2007, iPhone 360 included integrated initiatives across the Computer History Museum that explored the story of iPhone from its prehistory, inception, and launch, to its evolution and impact. The project was part of the Exponential Center's 360 series that focuses on transformational companies and products that have changed the world through technology innovation, economic value creation and social impact.

About This Guide
This guide is intended to introduce provocative questions to enhance and extend what you learn through watching the video. It is suitable for mature high school students and college and adult learners in an educational, professional, or social setting. It may be particularly interesting for people who are curious about innovation, entrepreneurship, and the start-up ecosystem of Silicon Valley.

Video
https://www.youtube.com/watch?v=dRexVI4PA3A

Before you watch the video...
Try to remember how you felt when you first used a computer or a mobile phone. Were you amazed, surprised, excited, intimidated, or was it no big deal? What do you feel when you use your computer or cell phone these days?

As you watch the video...
Note any of Tony Fadell's personal characteristics, experiences, or opportunities that in your mind mark him as an innovator or entrepreneur.

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For Discussion

Roots of an Entrepreneur (5:58)
Tony Fadell grew up in the 1980s along with the personal computer (PC) industry. For a young man with his interests and talents, what do you think he would have ended up doing if he had been born in the 1930s? The 1950s? Would your answer be different if he happened to be a girl? In what ways? Why?

Tony's grandfather taught him how to use a hammer and saw and other tools that could help with projects around the house. He viewed the computer as a modern-day tool. How do you think he would view the iPhone that his grandson helped to design? Why?

Recall Tony's first startup when he was in high school. What was the need that he and his partner sought to fill? What products did they develop? How did they market their products? When and why did they turn their focus to a new product? Were they successful? What lessons do you think Tony learned from this experience?

Experiencing Silicon Valley (20:35)
Why did Tony decide to move to Silicon Valley? What could he find there that was not available to him in Michigan? Do you think aspiring young engineers and entrepreneurs who come to Silicon Valley today have similar experiences? Which types of people might be more or less likely to share Tony's experience?

According to Tony, why did General Magic fail? In what ways did its failure contribute to future Silicon Valley successes?

Innovating at Apple (35:11)
Why did Tony hesitate to join Apple to work on the iPod? What factors led him to join the company?

Practically everything about the iPhone was new and had to be developed by the engineers at Apple. What were the upsides of this approach? The downsides? Do you think this is still a feasible way to develop a new product today? Why or why not?

Tony said that Steve Jobs could be influenced in his decisions by fact-based arguments that were well-researched. However, unless you had others backing you up on opinion-based decisions, Jobs would prevail. Do you think this leadership style would work in other companies or industries? If so, which ones? If not, why not? What about during different stages of product development?

What's Next? (56:58)
Does Tony's suggestion to scope a project so you can deliver a product in a year or a little more than a year seem like good advice to you? Why or why not? What do you think about Tony's advice to develop a product that anticipates a need but that is not too far ahead of people. Is it reasonable? How would you go about identifying future needs and products?

What do you think about Tony's prediction that the next "big thing" in tech will involve applying new technologies to disrupt other fields that have not yet integrated tech's potential? Do you agree? What do you think the next big thing, or things, will be? Why?

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