Name of Speaker: Max Goff

Title of Lecture: The Evolution of Software

Date of Lecture: 8/29 /13

Introduction

Max Goff, the presenter, had his first introduction to computers at the University of Utah in the 1960’s. He did not start actively studying computer science until later in his academic career. As he spoke about the evolution of software, he used his life experiences to draw conclusions about the “emergence” of software. An example of this would be his presentation of how networks have grown since his time as a student at the University of Utah. He did not reveal much about his professional history, other than he had written a book and been a leader of various companies.

Summary

The first concept that Mr. Goff highlighted was the pervasiveness of computers in our lives. He drew the conclusion that most of us have dozens of computers around each day that we typically do not consider. This approach allowed him to give a brief history of the computer from his perspective, but more importantly tie that perspective into a parallel with Darwin’s theory of evolution.

He took us through some slides, where he spoke about how practices we follow in computer development follow patterns of evolution. His main point was the concept of a ‘fitscape’; or an environment that gives way to the ability for us to adapt. He called this behavior emergence. He cited examples of the development of operating systems, the development of networks connections, and finally the development of software languages.

Max Goff pointed out some of the physical elements that need to be present for emergence. Moreover, he spent a fair amount of time on the maintenance of software. He pointed out that the post-delivery maintenance (PDM) phase is where most of time in software is spent. However, we don’t always put our best and brightest in the category.

After his point about maintenance he talked at length about Moores law. This law simply states that if a person spent an amount of money on computing, that over about 18 months, if you spent the same amount that the computing power would double. He gave an interesting analogy of about how this works by discussing the idea of folding paper.

Essentially he concluded that we are coming up on nearly 50 years of computing. With the parallel being, that if we folded a hypothetical piece of paper in half 50 times, that it would be over 72 million miles thick. That equates to nearly three quarters of the distance to the sun. He concluded again by asking us to think where we will be in another 50 years, and again how we are experiencing “emergence”.

Reflection

In my opinion, the points of Mr. Goff’s remarks were valid and insightful. His time spent in reflection of this topic was evident in the parallels that he made with the concepts of evolution I do agree with his position that technology is emerging and that from the current programs and applications new ones are derived and created.

Being relatively young, I appreciated his views of the history of computing from the 1960’s until now. It brings credibility knowing that he has experienced the development of the software languages, operating systems and network expansions. It makes me appreciate those who have been working to improve technology, and see a brief moment into the effort it has taken to advance our abilities.

The folding paper analogy particularly stuck out to me because of how easy it is to see what the growth and expansion of computing technology has been like. It helps bring hope for the future because I should be alive to see what 50 more years should bring about. It is also a very motivating and powerful concept to think that what we are learning each day in the classroom can be used to apply new techniques and concepts to the emergence of the computer science field.

This lecture will help me to be a better professional because of the perspective of looking forward to exciting things being developed. It will help me encourage employees and coworkers. I can then help them understand that if they can be creative and think of new products and tools that as a developer we can create new techniques and protocols for handling new innovative ideas and concepts.

Conclusion

In conclusion, the speaker provided detailed insights on where computing has come from. He let us know how bright the future is because of the direction it is going and the speed at which it is getting there.