Seminar 3: TED Talk on how Breakthroughs Come from Fun

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TED (Technology, Entertainment, Design) Talks often tend to discuss areas in science and entertainment that are blended together. Recently I saw a TED Talk by Steven Johnson titled: “The playful wonderland behind great inventions”. In this TED Talk he showed us that many of the technological advancements that came about in history are actually develop from humans just trying to have fun. He gave the example of how an automatic music box invented in the Middle East by three brothers about a thousand years ago lead to the idea of programmable functions. This idea used a metal cylinder with pins to hit certain notes as the cylinder rolls inside the box. Eventually this idea was adapted to other devices like an automated loom. That device found the pins to be too expensive to make, so a French inventor in the 1700s use paper with special holes punched out as this “programmable memory”. Then finally, in the 1900s modern computers came into being and some of their early memory systems were this same type of paper memory. All of that came from three brothers just trying to play music from a box. I found this to be very intriguing, so I started to think of a few more modern examples that also have this pattern of something created for entertain leading to some big development.

The first creation that comes to mind was YouTube. YouTube first started out as home video sight that any user could upload their adventures, stories and artistic video projects (Fitzpatrick). In its early days almost all views focus on individuals personal experiences and amateur video’s meant to make the viewers watching laugh. Now, YouTube is manage and serviced by Google, creates its own original content, and hosts some content creators that are valued at several million dollars (Fitzpatrick). Some YouTube videos have about the same amount of production value as cable TV shows and often even rival the cable industry in views (Fitzpatrick). This is a huge development, as before one needed to gain financial investment from a producer to afford creating this type of content; now one can grow a channel independently to produce such content.

Another modern example where entertainment brought about large advancements in technologies is Graphics Processing Units (GPUs). The development of GPU started as extra processing for computers to generate advanced graphics for video games (Singer). Eventually through a series of development cycles trying to have these GPUs generate even better graphics for increasingly complicated games, engineers began to see how powerful they are at parallel processing. A modern GPU can process over a thousand operations at the same time (Kamath). This parallel processing ability is extremely important to the way supercomputers function, as supercomputers generally speed up calculations by breaking it down into several parts and processing those parts at the same time (Kamath). Now researchers have found that construction supercomputers out of several GPU cores increases their computation speeds by as much as 350 times that of traditional CPU cores. That is a massive advancement in the extremely precise calculations supercomputers do, and it all comes from people just wanting to play games.

So in conclusion this TED Talk really shined a light on how innovations come about. Often times it isn’t from necessity or military production as is generally believe, Sometimes innovation and advancement just comes from those trying to have the most fun. With that I cannot think of a better reason not to try to have more fun in my life.

References

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