

CS 280
Assignment Week 1

1. Before computers and the Internet, storing students or employees information in a company or university was a difficult task because of the risk of losing data (papers can be damaged by moisture or fire) and the disadvantage of retrieving desired information (for example, it is difficult to find the information of a student who graduated 10 years ago among millions of paper records in a huge storage).
2. Keeping privacy was easier before computers or the Internet. Before the Internet, there is no way other than asking directly if you want to ask a girl for her phone number. Nowadays, with the development of the Internet and social networks, just by one picture, people can find out name, age, marital status, address, workplace or even phone number of that person (depends on the level of privacy this person set up on his social network accounts) without his permission.
3. Alan Turing (1912 - 1954) was an English computer scientist whose contributions greatly influenced the development of computer science. One of his contributions which became the foundation of all modern computer systems was Turing machine. Being invented in 1936, Turing machine was a hypothetical machine which could solve any mathematical problem. His idea about a universal computable machine was the corner stone for every computer (nowadays computers are used for variety of tasks rather than just focus on solving mathematical problems). However, the factor that made Turing machine special at that time was its structure (even though it was just hypothetical). Instead of rewiring the machine for changing its state, Turing machine stored its instructions onto a long piece of tape which could move back or forwards, which was the primitive of the structure of a CPU with access to memory. Today, Turing machines are used just for teaching purposes but technically every modern computer is built based on its structure.
Reference: Clark, Liat and Ian Steadman, "Remembering Alan Turing: from codebreaking to AI, Turing made the world what it is today" *Wired*. 07 Jun 2017. Web. www.wired.co.uk/article/turing-contributions
4. Fourteen years ago, on February 4, 2004, Mark Zuckerberg - who was a Harvard student at that time - launched his website "thefacebook.com". Facebook now becomes one of the biggest social networks with more than 2 billions monthly active users. Facebook's founder - Mark Zuckerberg - is ranked 6th in World's Billionaires 2017 with his net worth \$56 billions. Even though there is controversy about the foundation of Facebook, it's undeniable that Facebook was one of the most successful startups in the world.
5. a) Before 1973, a multiplayer game was limited to players on the same screen. The first strategic turn-based game up to 8 players where players could play on separate screens was "Empire". The game was created for the PLATO (Programmed Logic for Automatic Teaching Operation) network system which was built by University of Illinois. Consequently, the idea of online multiplayer gaming where people can compete to others on their own system started to develop. As the

advancement of technology, a personal computer system became more practical, which made gaming became popular, especially among younger people. Today, multiplayer gaming is an indispensable part of gaming technology.

<https://techcrunch.com/2015/10/31/the-history-of-gaming-an-evolving-community/>