Introduction to Information Systems
– Understanding the digital world

11 Data and Information

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Today's schedule

- Review of the last mini test (5')

- Data, information, search (15')

- Big data and privacy (35')

- DNA -> Brain ->? (10')

- Mini test #11 (20')

- Information and homework (5')

Review of the last mini test

1. circuit-switched, packet-switched

2. "aw.gsais.kyoto-u.ac.jp" is a host name; "gsais.kyoto-u.ac.jp" is the domain name

6. IP address of www.doshisha.ac.jp => use "nslookup www.doshisha.ac.jp" on the command line => 18.65.xxx.yyy (202.23.xxx.yyy was the IP address last year and before)

Data, information, search

YouTube, Data-Information-Knowledge (3')
https://www.youtube.com/watch?v=sljSYO5JE9Q

YouTube, The Internet: How Search Works (6')
https://www.youtube.com/watch?v=LVV_93mBfSU

Difference between data and information

Data

- File 1 (File 2): a 1M text with zero (one) only -> size 1MB (the amount of data)

- File 3: a file obtained by combining Files 1 and 2 -> size 2MB (the amount of data)

- File 4: a file obtained by randomly shuffle File 3 -> size 2MB (the amount of data)

Information

- Which file contains more information?

- The amount of information can be estimated by compressing the file with zip. -> ?

Big data and privacy

YouTube, crash course, Introduction to Big Data (12')

https://www.youtube.com/watch?v=vku2Bw7Vkfs

YouTube, End of Privacy, M. Kosinski (20')

https://www.youtube.com/watch?v=04QhfqqSCVI

DNA -> Brain -> ?

Brain is becoming more important than DNA now (e.g., gender equality, etc).

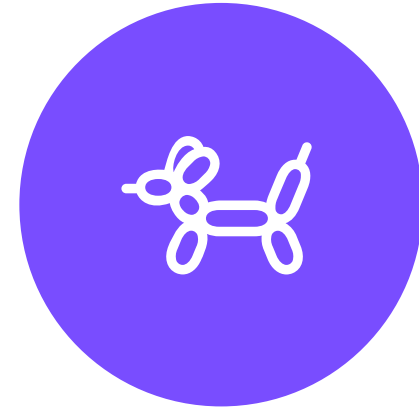## Then, what is next? Hints from the society:

- IT giants (GAMA etc) are taking control of our daily life.
- Fintech companies are taking control of our finance.
- AI and IoT are quickly spreading in the world.
- The merge of human and machine requires big data. -> less privacy, less freedom

Mini test

- Which one do you choose: a little finger or the Internet?

- Write an essay about your opinion on the use of the Internet (about 400 words).

Information and homework

- Future schedule: Jan 9, 16, 23 and 30 (same time, same room)

- If you want to know your score so far, ask me from your Doshisha's email.

- Late submission is possible with max 3 pts, or 5 pts for fair reasons.

READ CHAPTER 11