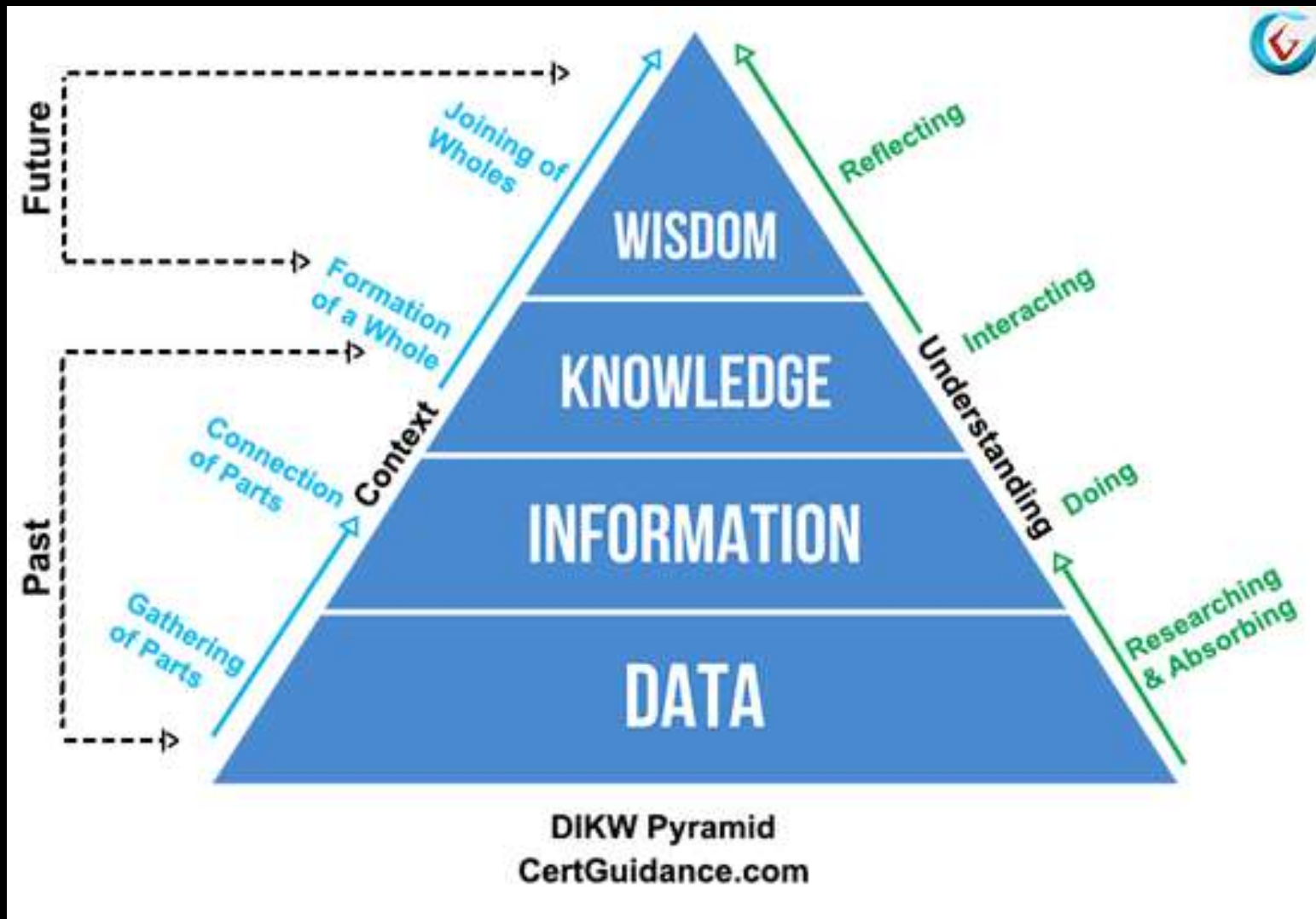


The fortune at the bottom of the pyramid



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My mission is to help you (and I) grow and learn, every day! My favicons include:

- ✓ Auditing of financial and IT systems
- ✓ Cloud awareness
- ✓ Cybersecurity
- ✓ CISA



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CIS Critical Security Controls v8

CONTROL 01 Inventory and Control of Enterprise Assets

5 Safeguards | 01 2/5 | 02 4/5 | 03 5/5

CONTROL 02 Inventory and Control of Software Assets

7 Safeguards | 01 3/7 | 02 6/7 | 03 7/7

CONTROL 03 Data Protection

14 Safeguards | 01 6/14 | 02 12/14 | 03 14/14

CONTROL 04 Secure Configuration of Enterprise Assets and Software

12 Safeguards | 01 7/12 | 02 11/12 | 03 12/12

CONTROL 05 Account Management

6 Safeguards | 01 4/6 | 02 6/6 | 03 6/6

CONTROL 06 Access Control Management

8 Safeguards | 01 5/8 | 02 7/8 | 03 8/8

CONTROL 07 Continuous Vulnerability Management

7 Safeguards | 01 4/7 | 02 7/7 | 03 7/7

CONTROL 08 Audit Log Management

12 Safeguards | 01 3/12 | 02 11/12 | 03 12/12

CONTROL 09 Email and Web Browser Protections

7 Safeguards | 01 2/7 | 02 6/7 | 03 7/7

CONTROL 10 Malware Defenses

7 Safeguards | 01 3/7 | 02 7/7 | 03 7/7

CONTROL 11 Data Recovery

5 Safeguards | 01 4/5 | 02 5/5 | 03 5/5

CONTROL 12 Network Infrastructure Management

8 Safeguards | 01 1/8 | 02 7/8 | 03 8/8

CONTROL 13 Network Monitoring and Defense

11 Safeguards | 01 0/11 | 02 6/11 | 03 11/11

CONTROL 14 Security Awareness and Skills Training

9 Safeguards | 01 8/9 | 02 9/9 | 03 9/9

CONTROL 15 Service Provider Management

7 Safeguards | 01 1/7 | 02 4/7 | 03 7/7

CONTROL 16 Applications Software Security

14 Safeguards | 01 0/14 | 02 11/14 | 03 14/14

CONTROL 17 Incident Response Management

9 Safeguards | 01 3/9 | 02 8/9 | 03 9/9

CONTROL 18 Penetration Testing

5 Safeguards | 01 0/5 | 02 3/5 | 03 5/5



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A

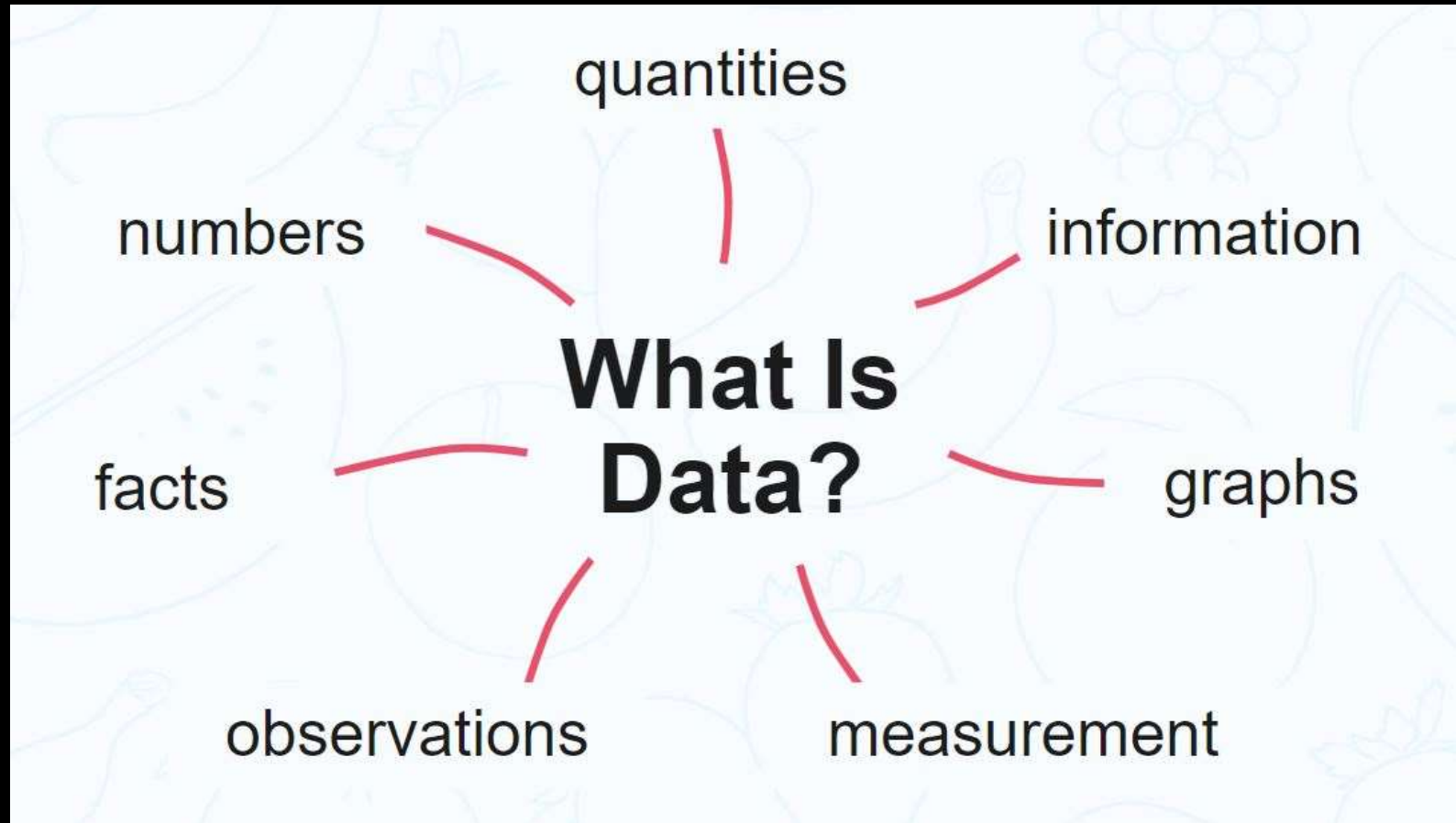
What is data?

A collection of *discrete or continuous values* that convey information, describing the *quantity, quality, fact, statistics, other basic units of meaning, or simply sequences of symbols* that may be further interpreted formally.



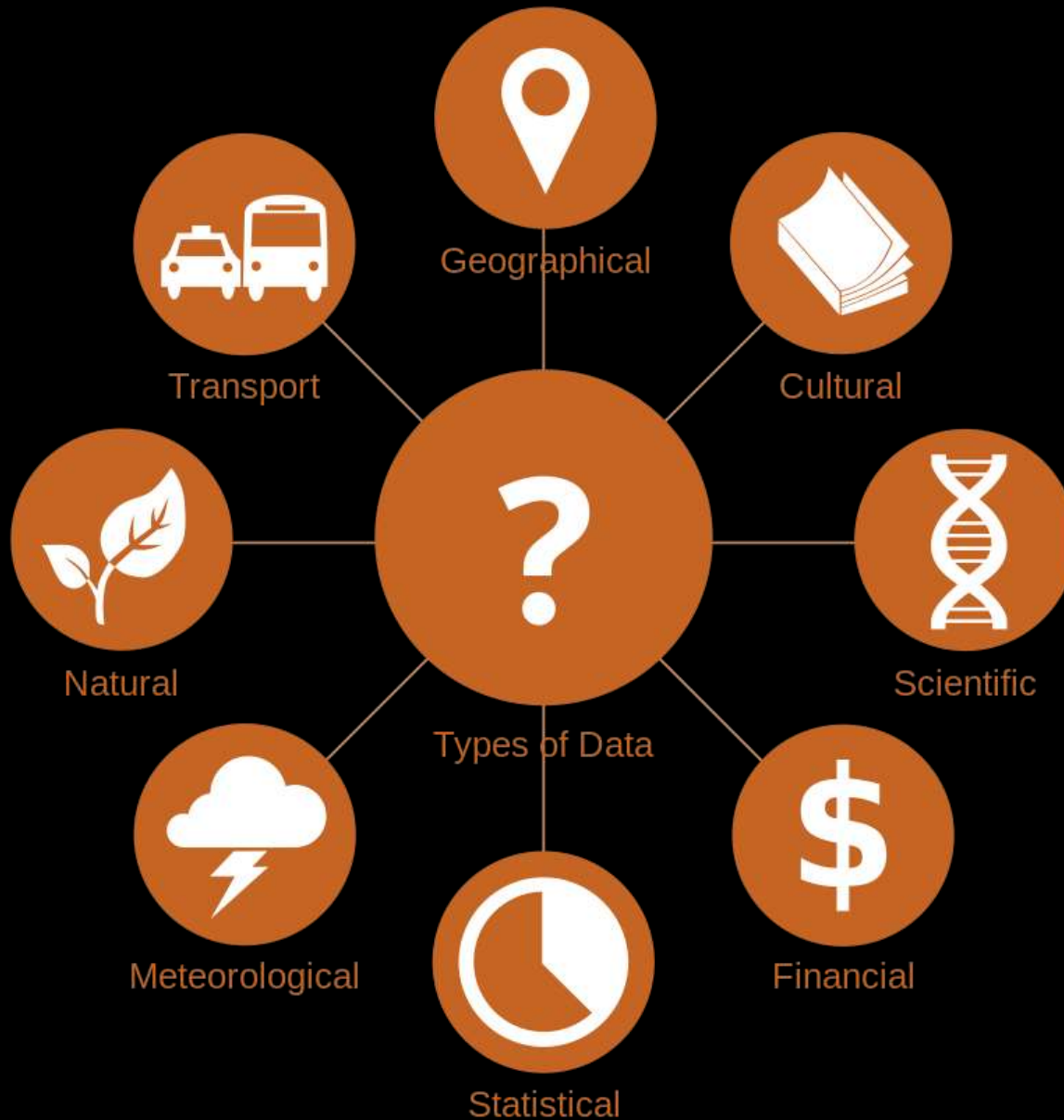
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A



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A



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B

Data, data... what is it good for?

Data is commonly used in scientific research, economics, and in virtually every other form of human organizational activity.



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C

What is a data set?

A data set is a collection of related, discrete items of related data that may be accessed individually or in combination or managed as a whole entity.

A data set is organized into some type of data structure.



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C

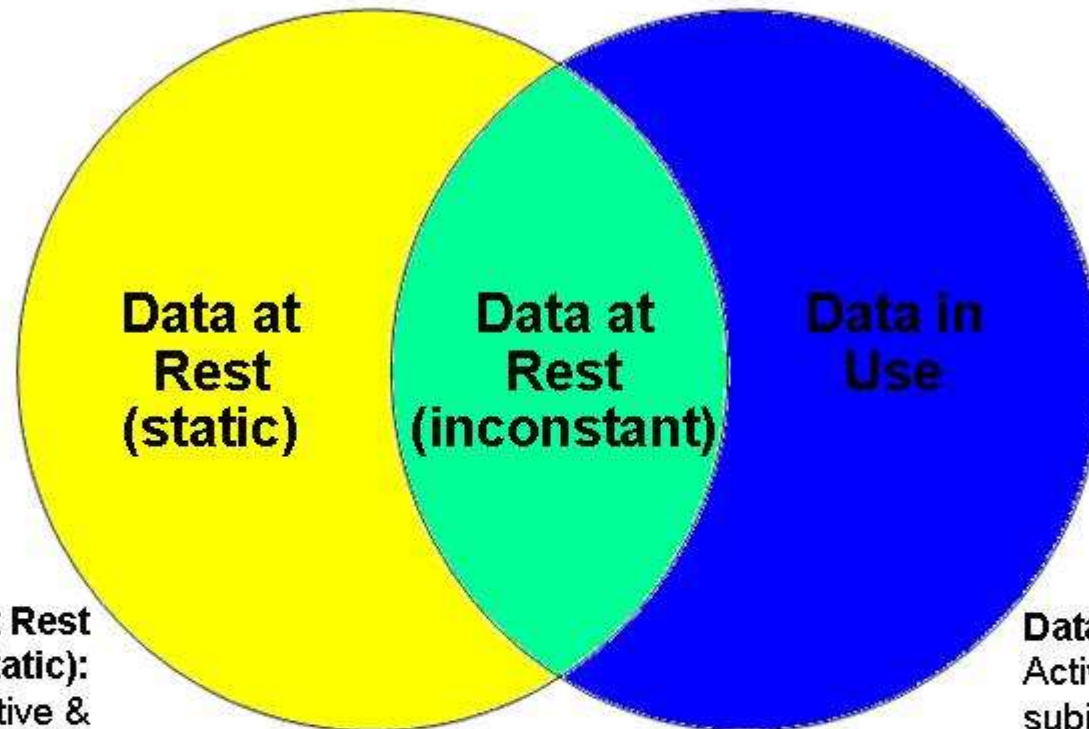
What is a data set?

Examples of data sets include price indices (such as consumer price index), unemployment rates, literacy rates, and census data.



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The 3 states of data



Data at Rest (static):
Inactive & unchanging data
(e.g. archives)

Data at Rest (inconstant):
Inactive data subject to occasional change
(e.g. reference tables)

Data in Use:
Active data subject to frequent change (e.g. operational databases)



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D Data at rest

Data that is housed physically on computer data storage in any digital form.



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Data at rest (scenarios):

- ✓ Cloud storage
- ✓ File hosting services
- ✓ Databases
- ✓ Data warehouses
- ✓ Spreadsheets
- ✓ Archives
- ✓ Tapes
- ✓ Off-site or cloud backups
- ✓ Mobile devices etc.



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Data at rest includes both structured and unstructured data



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Data in transit

Also referred to as data in motion and data in flight, is data en route between source and destination, typically on a computer network.



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In transit – twice as nice

1. Information that flows over the public or untrusted network such as the Internet
2. Data that flows in the confines of a private network such as a corporate or enterprise local area network (LAN).



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Data in use

Active data which is stored in a non-persistent digital state typically in computer random-access memory (RAM), CPU caches, or CPU registers.



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Let's go back in time to unlearn and relearn...



Thank you, Ansel Adams

F RAM



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RAM

A form of computer memory that can be read and changed in any order, typically used to store working data and machine code



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Cache

A smaller, faster memory, located closer to a processor core, which stores copies of the data from frequently used main memory locations.



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F

CPU register

Registers usually consist of a small amount of fast storage, although some registers have specific hardware functions, and may be read-only or write-only



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R E C A P

Let's recap

- A. Data is raw facts and figures;
- B. Data is at the bottom of the DIKW pyramid;
- C. Data may be quantitative or qualitative;
- D. A data set is a collection of related data;
- E. Plethora of use cases in almost all walks of life;
- F. 3 states of data: at rest, in transit and in use.



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Help my achieve my mission to bring
valuable ideas, information & inputs to
you.

Like, subscribe, follow (why not all 3?)

Thank you!



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