Considering New Data Sources

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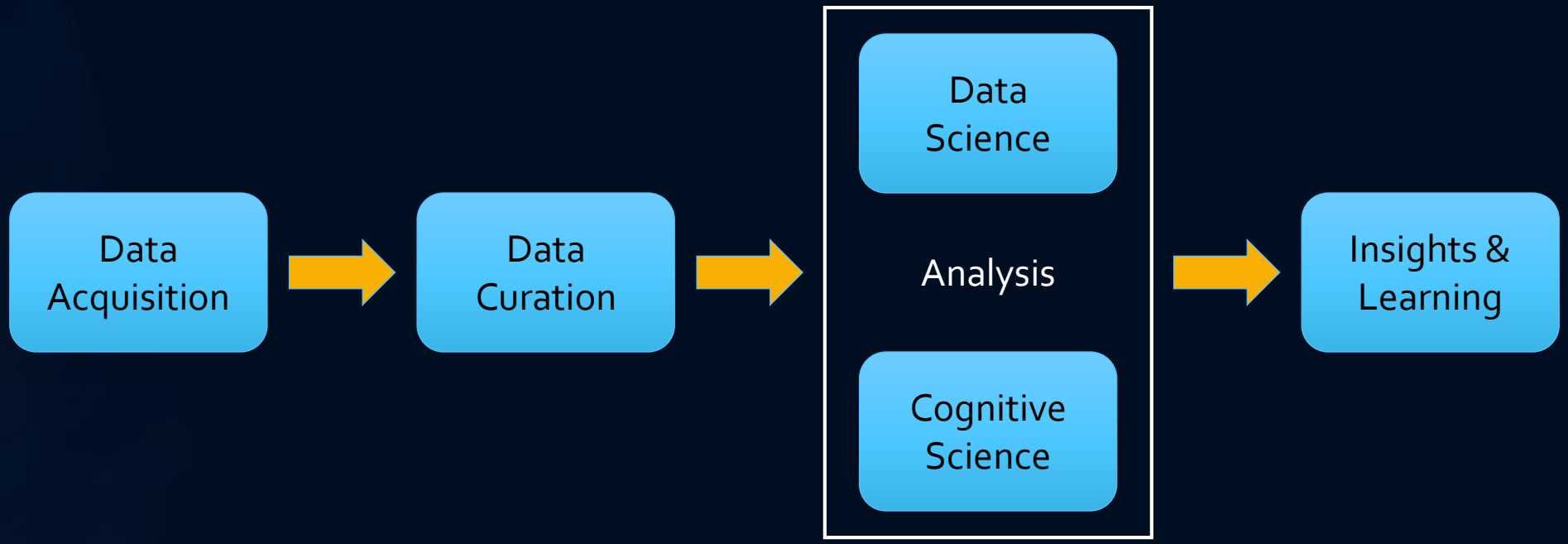

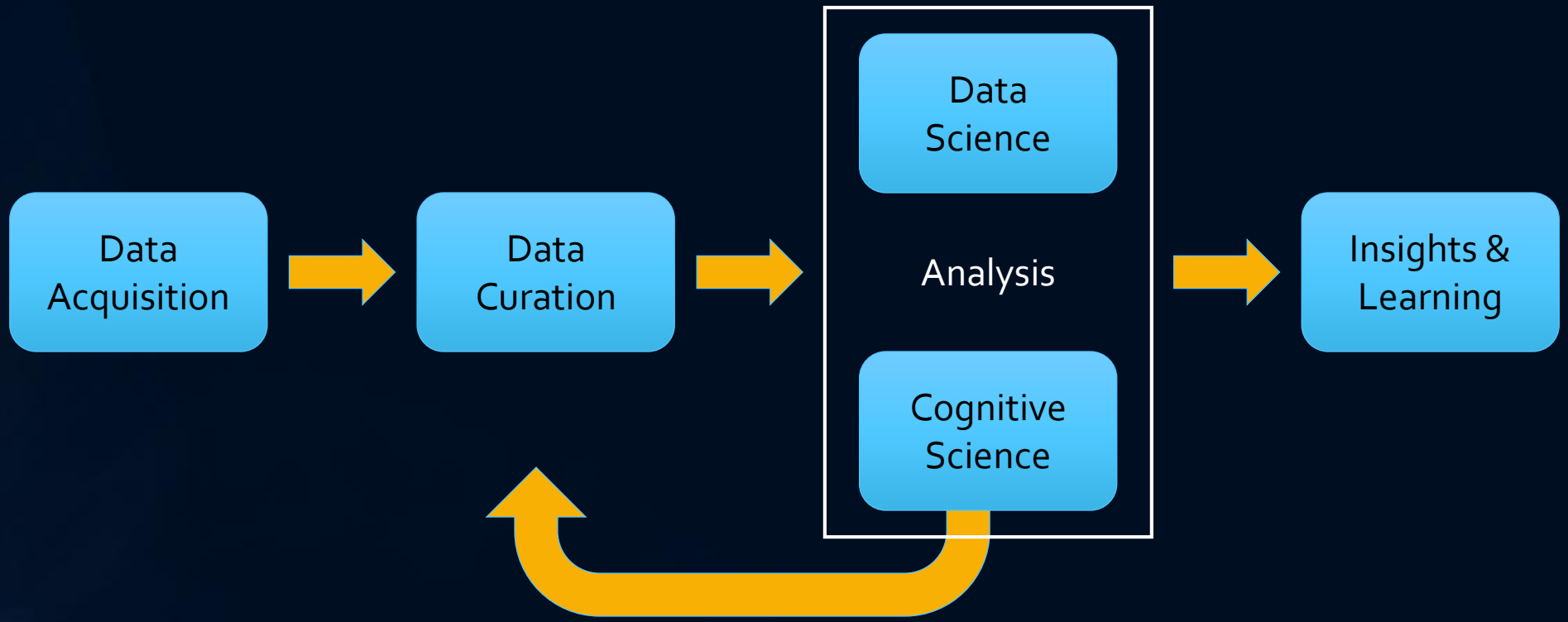

New Sources

IoT

Mobile

Drones

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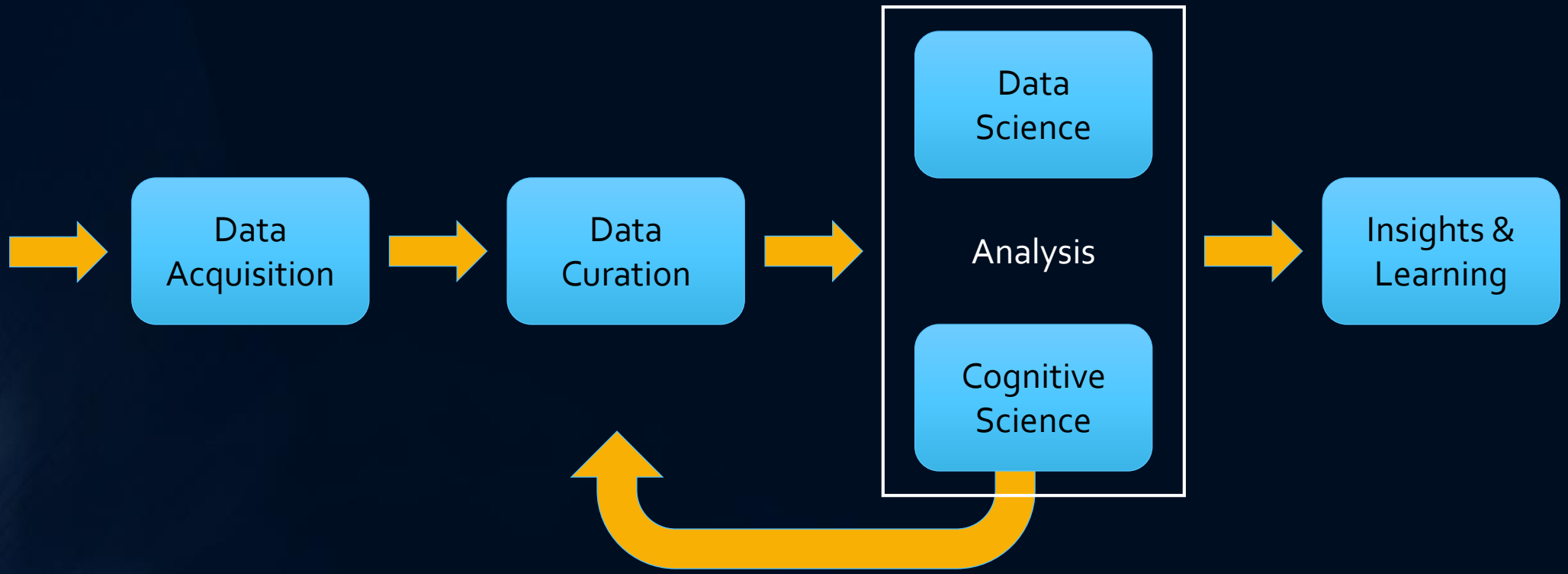

IoT = Internet of Things

- The "things" are sensors and actuators.
- Traditionally, people thought IoT applied to factories and machines.
- Increasingly, human wearable devices are included in IoT.
- You should think of IoT and mobile being used together.
- The value is not in collecting the data, it's in what you do with it.

Examples and Applications of IoT

- Smart watches and other worn devices for fitness and safety
- Healthcare
- Self-driving vehicles
- Predictive asset maintenance
- Anomaly detection
- Operations optimization
- Drones

Mobile

- While interesting new apps are developed all the time, the value and attractiveness of mobile for consumers is understood.
- Mobile phones are being used as gateways to the cloud for the data and analysis of the data from wearable and local devices.
- Mobile Enterprise Computing is a rapidly growing area: using mobile to help people do their jobs better and more safely.
- Many phones are today are powerful enough to do computations formerly reserved for servers.

Apple iPhone 6 vs Apollo Guidance Computer

- Number of transistors
  iPhone has 130,000 times more than Apollo
- Clock Frequency
  iPhone is 32,600 times faster than Apollo
- Instructions per Second
  iPhone is 80,800,000 times faster than Apollo
- Overall Performance
  iPhone is 120,000,000 times faster than Apollo

Source : Quora

Drones

- There are many policy and legal issues surrounding the use of drones.
- Depending on the sensors on a drone, it can generate a broad range of spatiotemporal data.
- Weight and power consumption are significant problems for today's drones.
- We're at the early stages of understanding how best to program drones and optimize how they are used.
- Agriculture is one of the most promising areas of applications for drones.

Types of Data Generated by Drones

- General
  images, video,
- Agriculture
  temperature, humidity, crop health
- Hazards
  storm damage, railway damage
- Insurance
- Defense and Public Safety

Privacy, Ownership, and Use

- If data is generated on my property or from my body, who gets to see it?
- Who owns the data generated on my property or from my body?
- Can others freely use such data or can I restrict its use?
- Can or should I get paid for such use?
- If I'm not paid in money, can I get paid in insights?