

Introduction to Big Data

Harvesting, Storing, and Retrieving Data

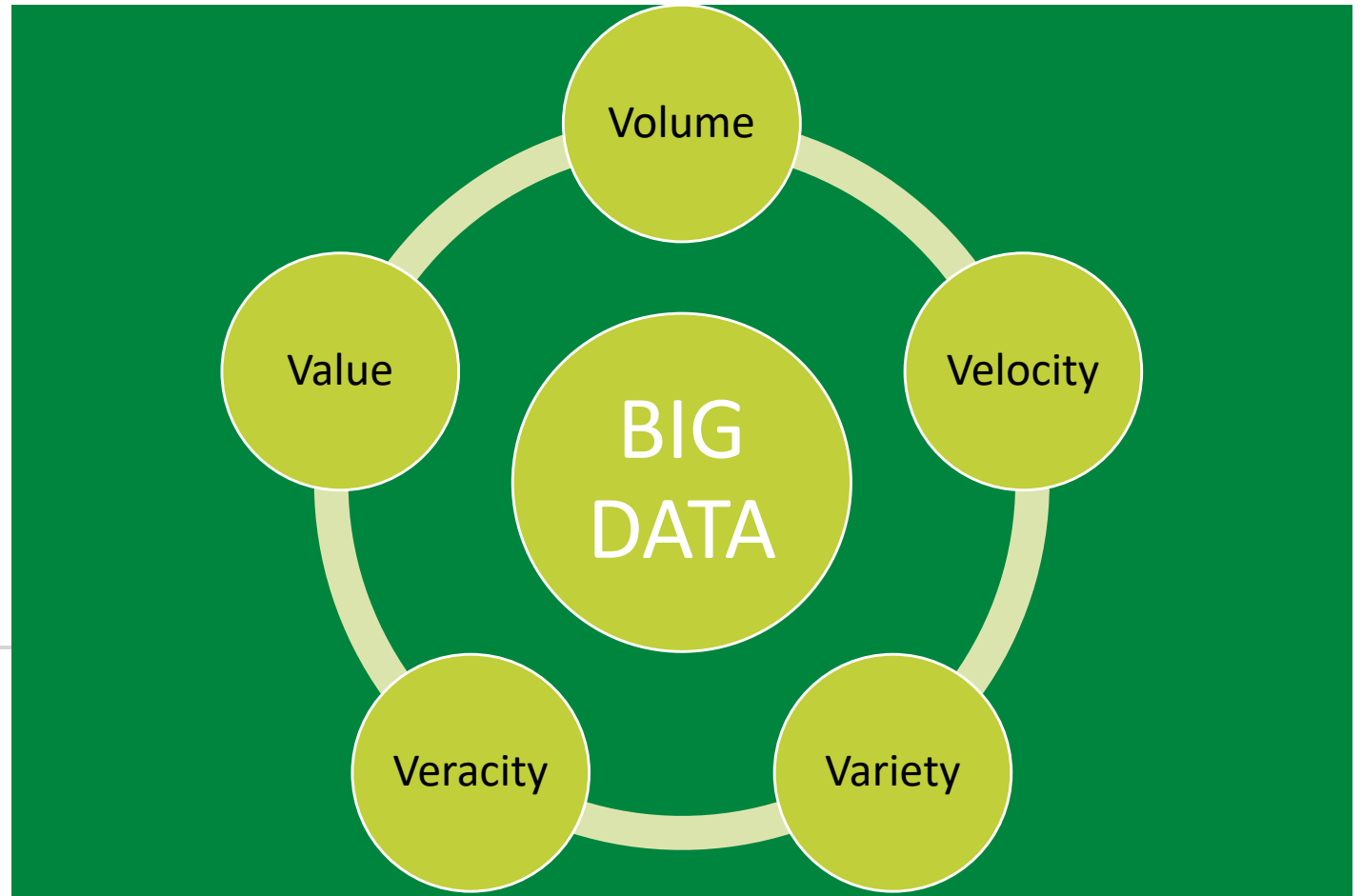
Why are we here?

- What are the five Vs of Big Data?
 - How do they help define Big Data??
- What are structured and unstructured data?
 - How are they different?
 - Why do we care?

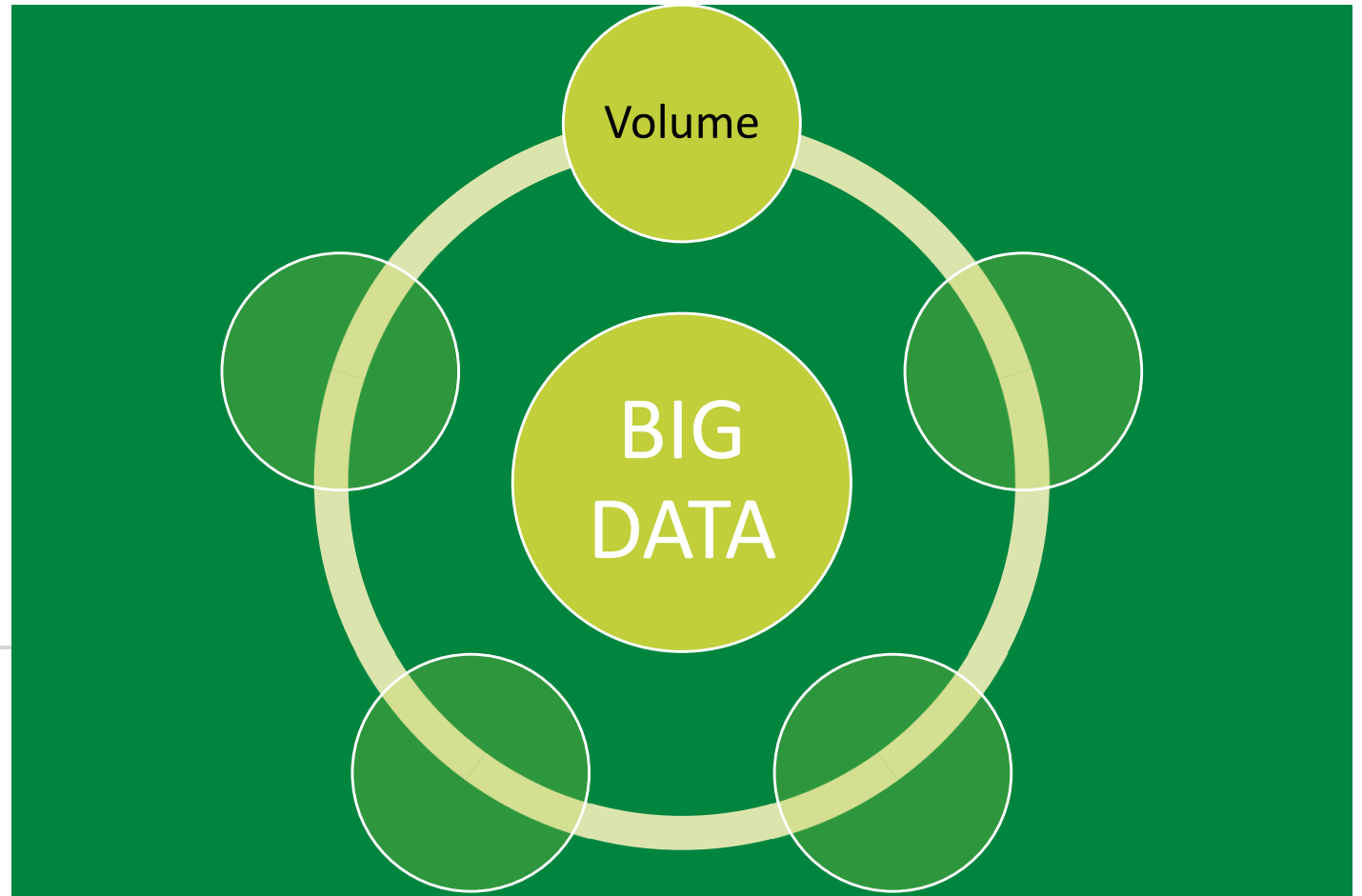


What is Big Data

The 5 V's of Big Data



The 5 V's of Big Data



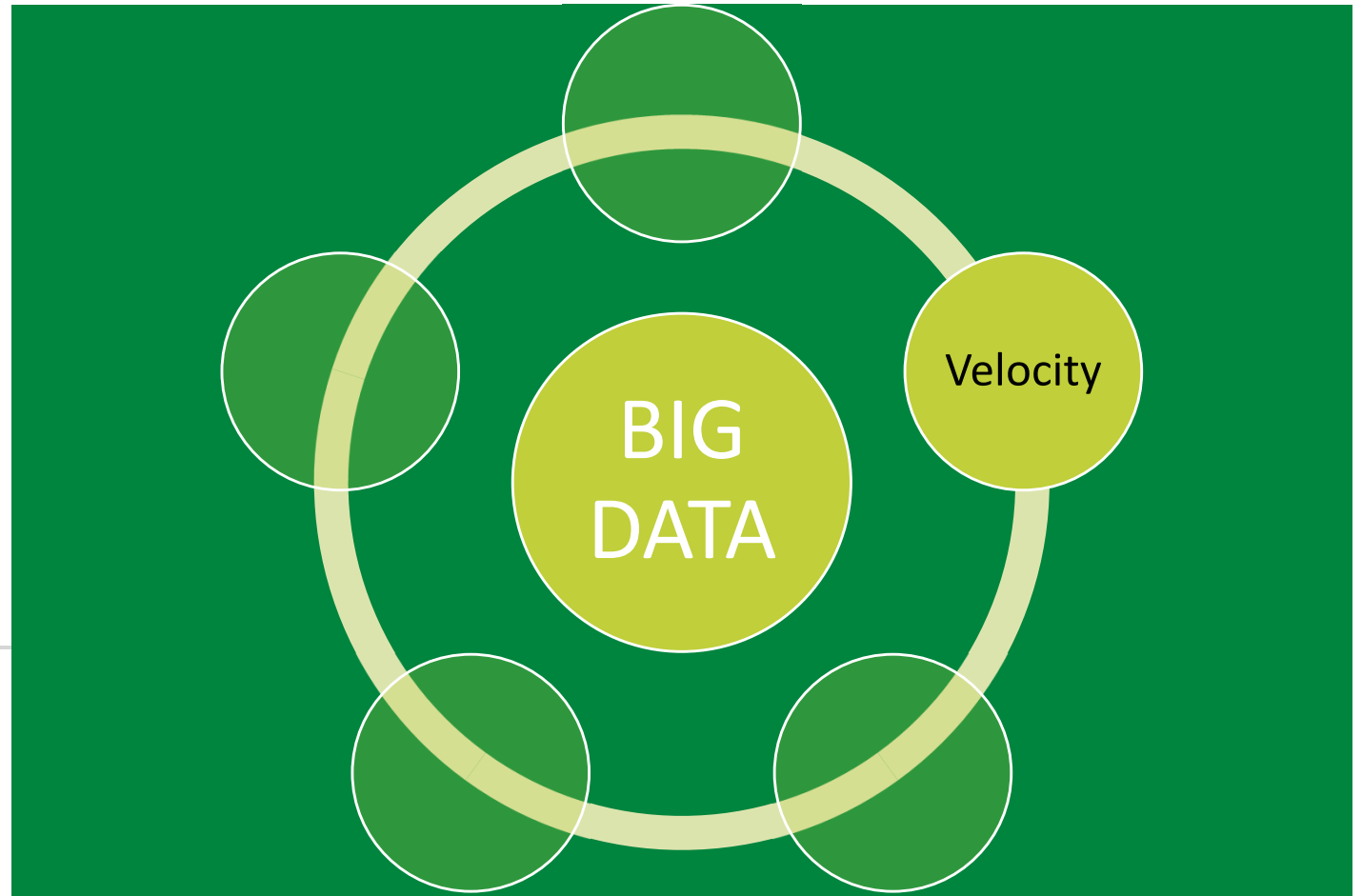


The 5 V's of Big Data

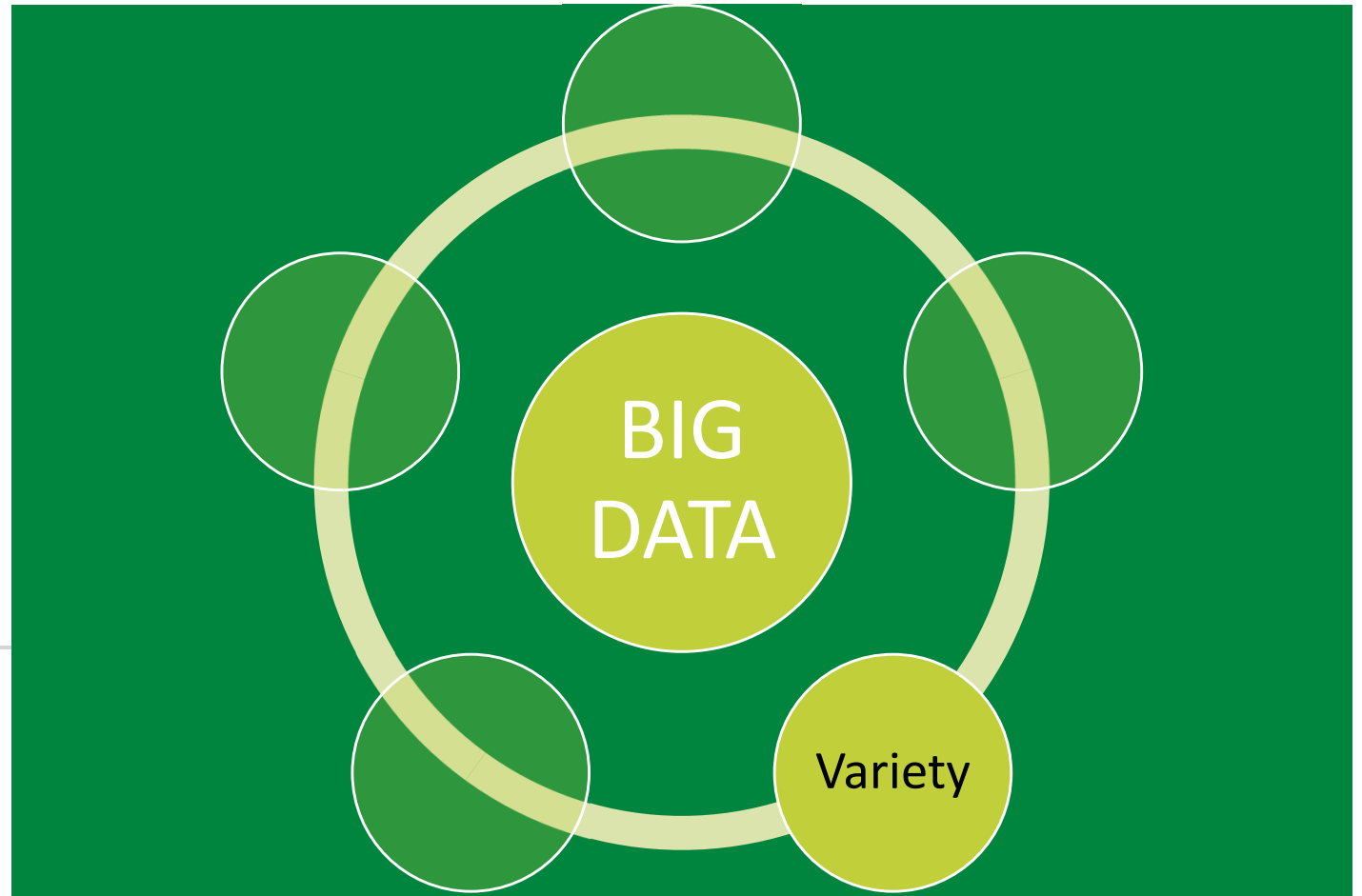
Volume

terabyte (TB)	10^{12}
petabyte (PB)	10^{15}
exabyte (EB)	10^{18}
zettabyte (ZB)	10^{21}
yottabyte (YB)	10^{24}

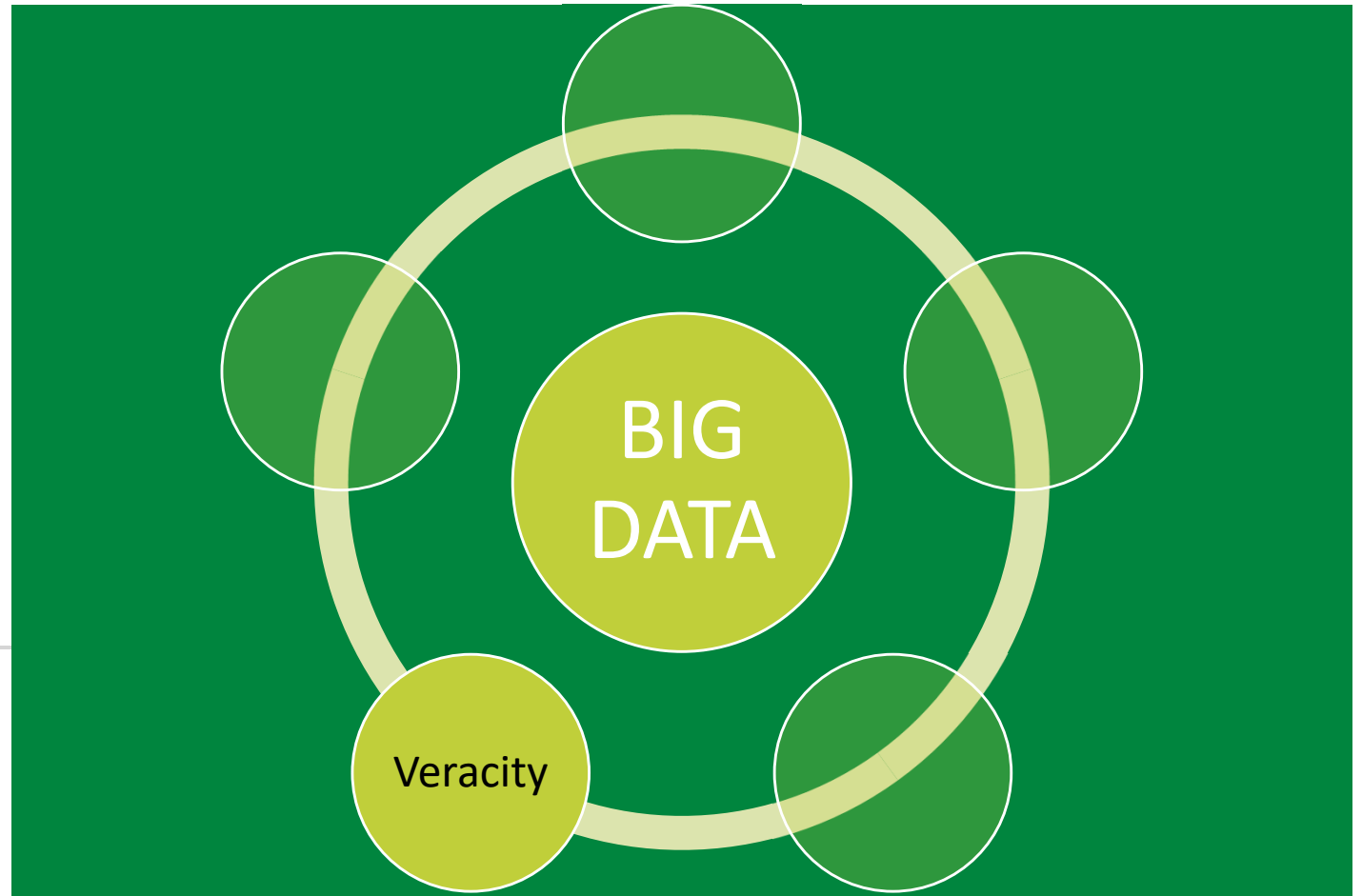
The 5 V's of Big Data



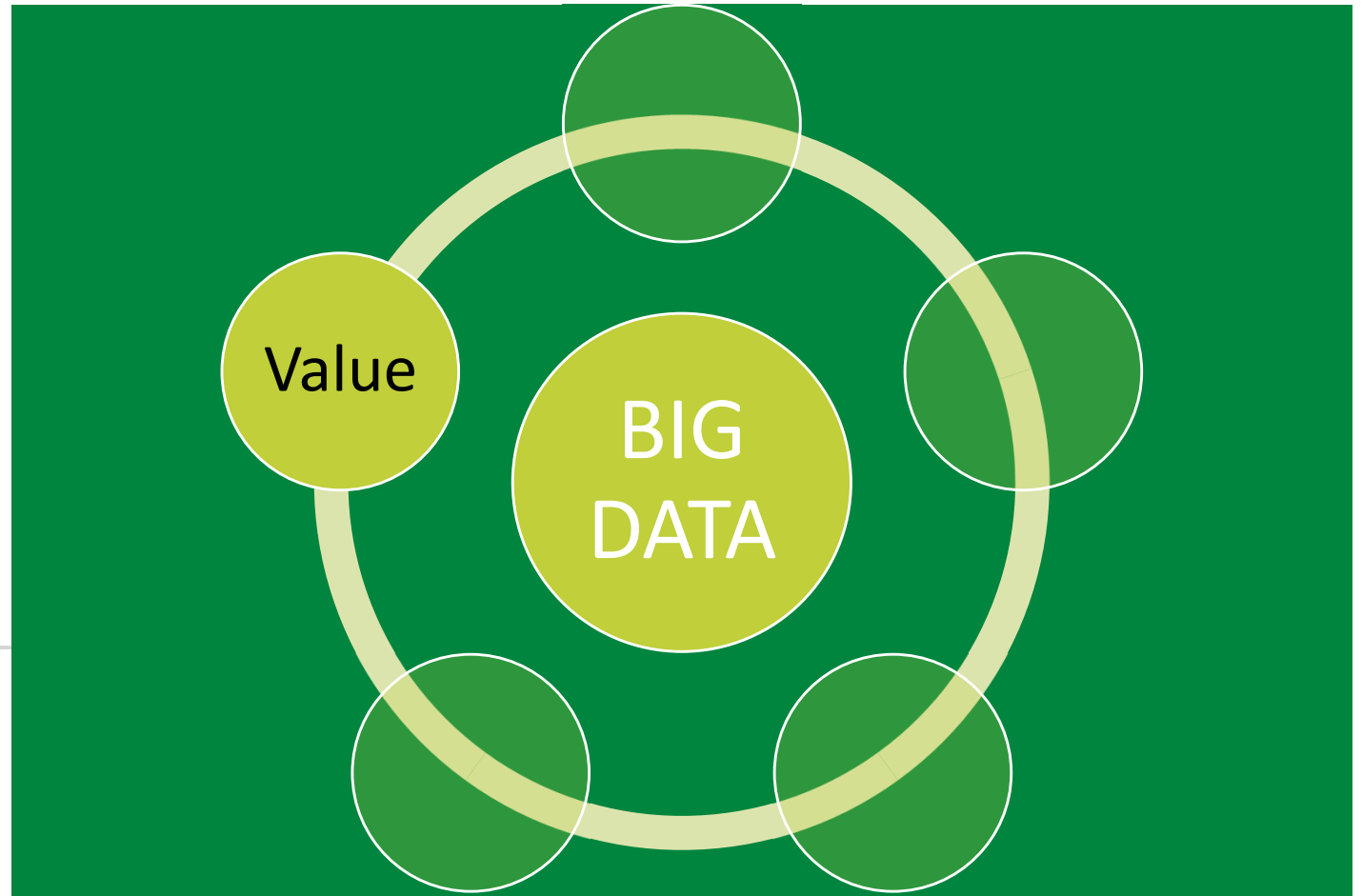
The 5 V's of Big Data

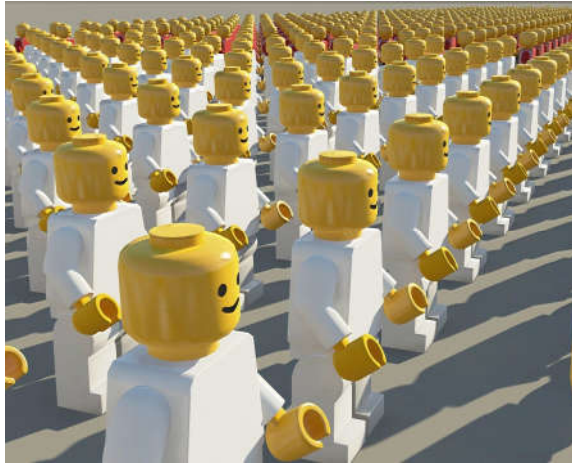


The 5 V's of Big Data

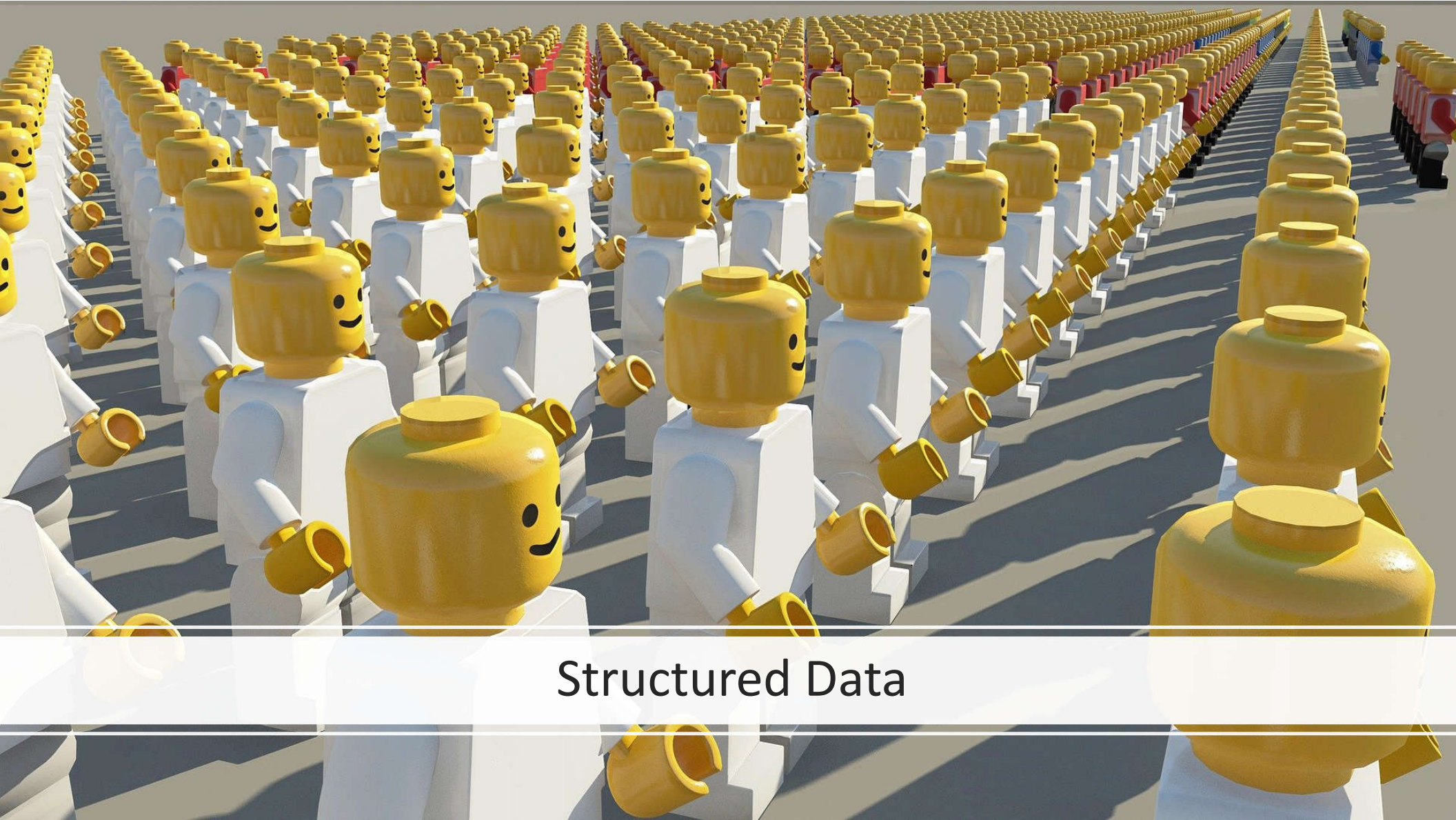


The 5 V's of Big Data



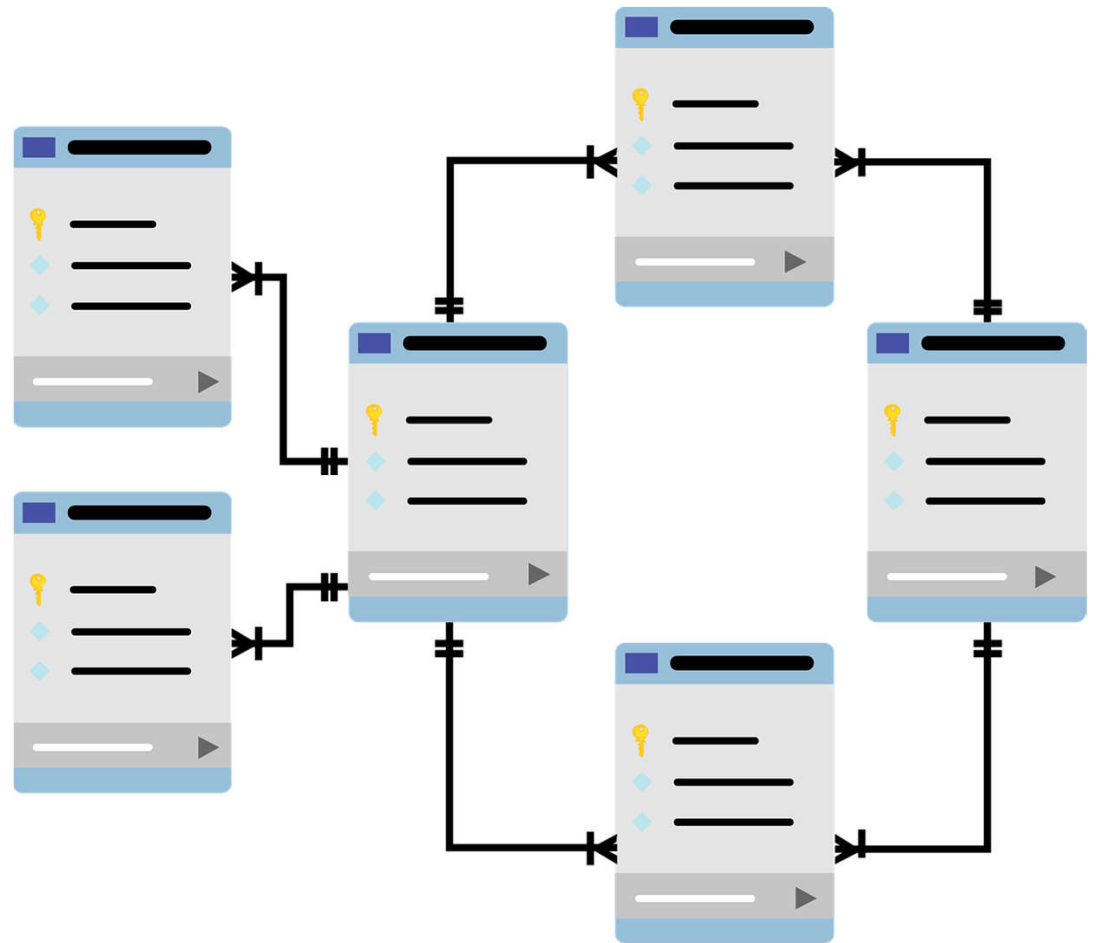


Types of Big Data:
Structured, Semi-structured, Unstructured Data




Structured Data

Structured Data: Relational Database





Semi-Structured Data



Semi- Structured Data: XML Document

HTML

```
<note>  
<to> Tom</to>  
<from> John</from>  
<heading> Reminder</heading>  
<body> lunch today?</body>  
</note>
```

JSON

```
{"name": "John", "age": 30, "car":  
GM"}
```




Unstructured Data



Assignment