

ONLINE MASTERS IN DATA SCIENCE

DSC 207 - PYTHON FOR DATA SCIENCE


WHY ARE WE TALKING ABOUT DATA SCIENCE NOW?

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By the end of this video, you will be able to:

- List some of the disruptors behind the recent data science advances
 - Explain what big data is
 - Describe how scalable computing is a big part of data science
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- A decorative teal triangle is located in the bottom right corner of the slide.

Why is data science so popular?



Why is data science so popular?

The Computing Continuum

IoT/Edge

Fog

HPC/Cloud/Instrument

Size	Nano	Micro	Milli	Server	Fog	Campus	Facility
Example	Adafruit Trinket	Particle.io Boron	Array of Things	Linux Box	Co-located Blades	1000-node cluster	Datacenter
Memory	0.5K	256K	8GB	32GB	256G	32TB	16PB
Network	BLE	WiFi/LTE	WiFi/LTE	1 GigE	10GigE	40GigE	N*100GigE
Cost	\$5	\$30	\$600	\$3K	\$50K	\$2M	\$1000M

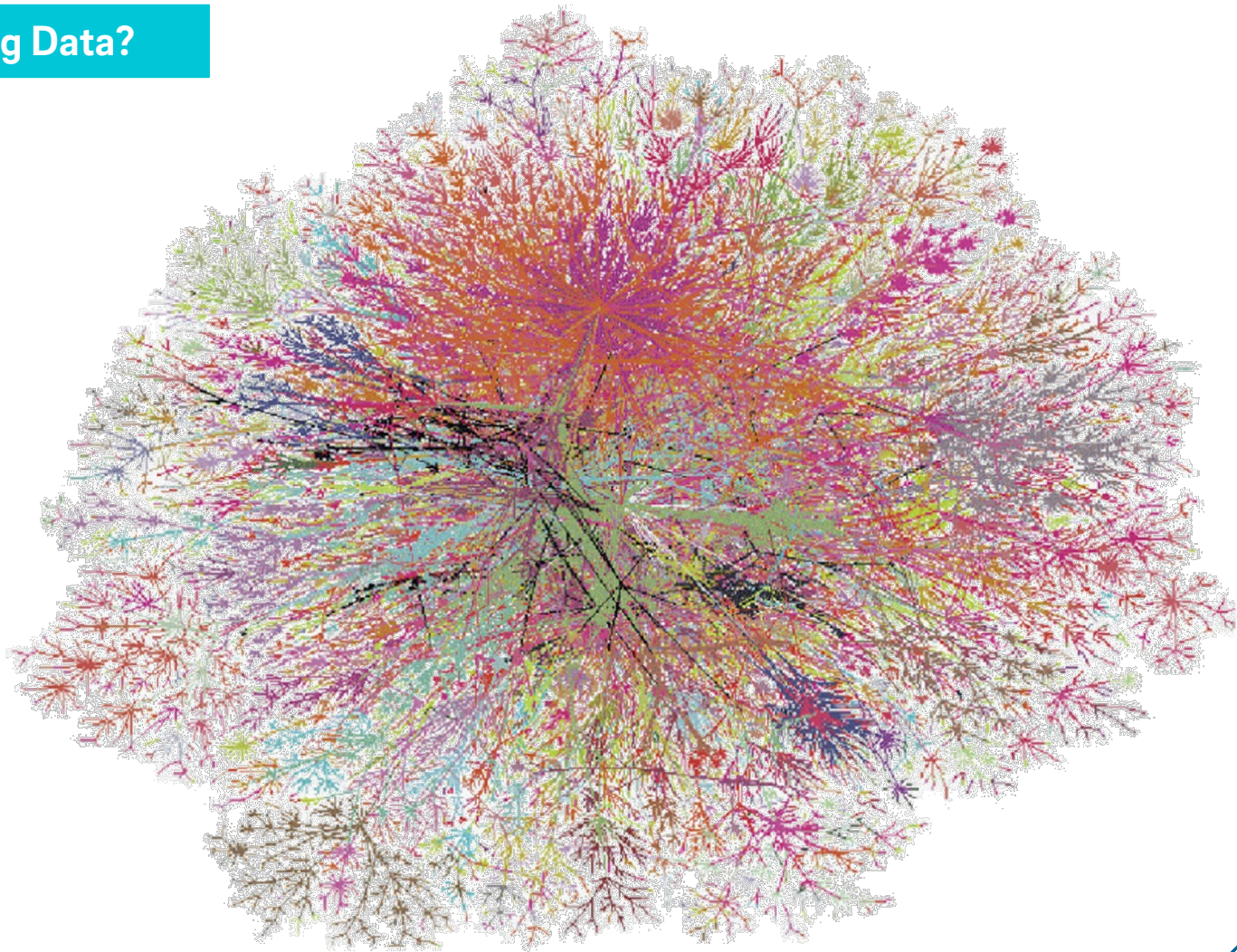
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Beckman, P.H., Dongarra, J.J., Ferrier, N.J., Fox, G., Moore, T.L., Reed, D.A., & Beck, M. (2020). Harnessing the Computing Continuum for Programming Our World.

What is Big Data?





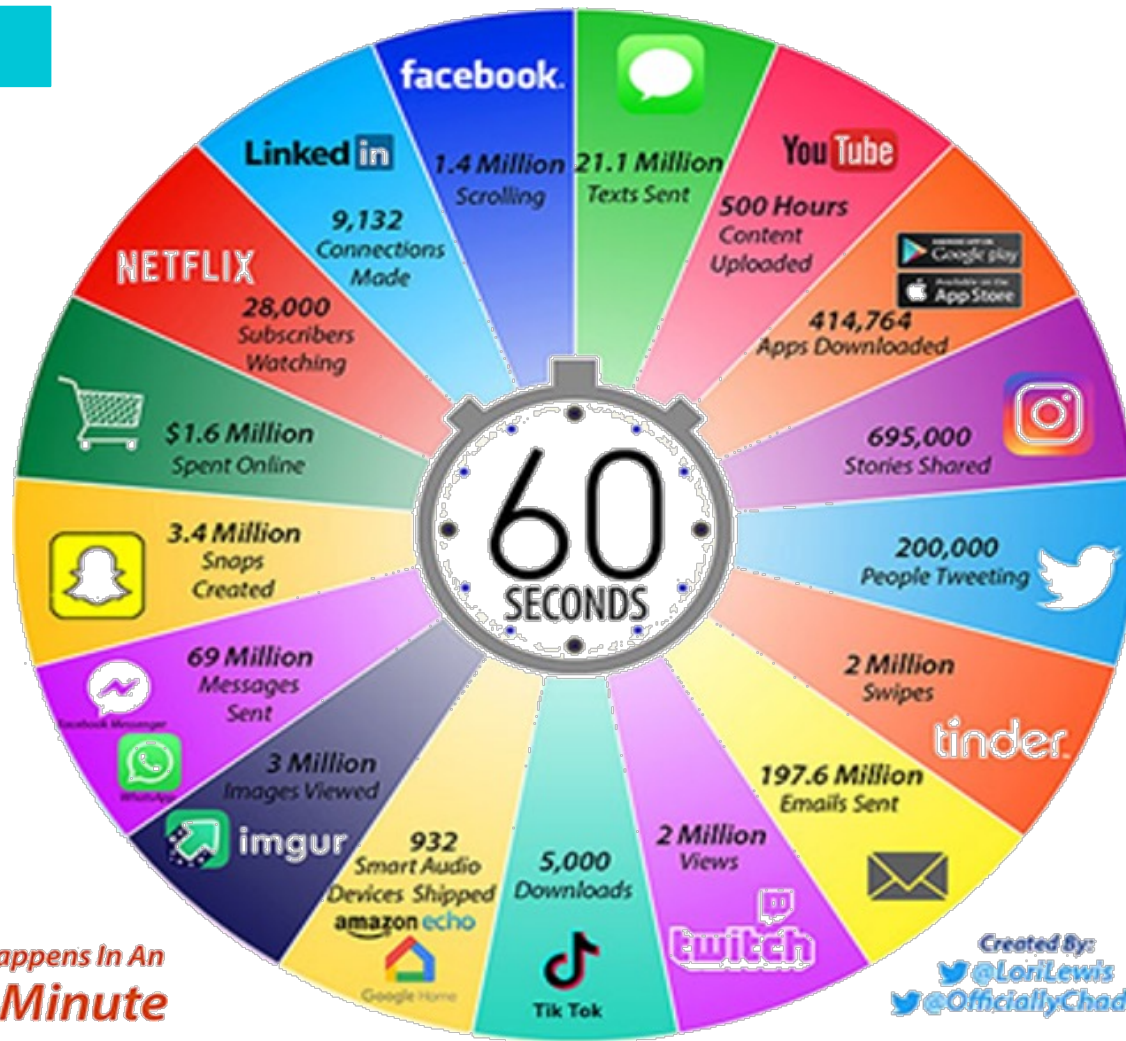
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One Internet Minute

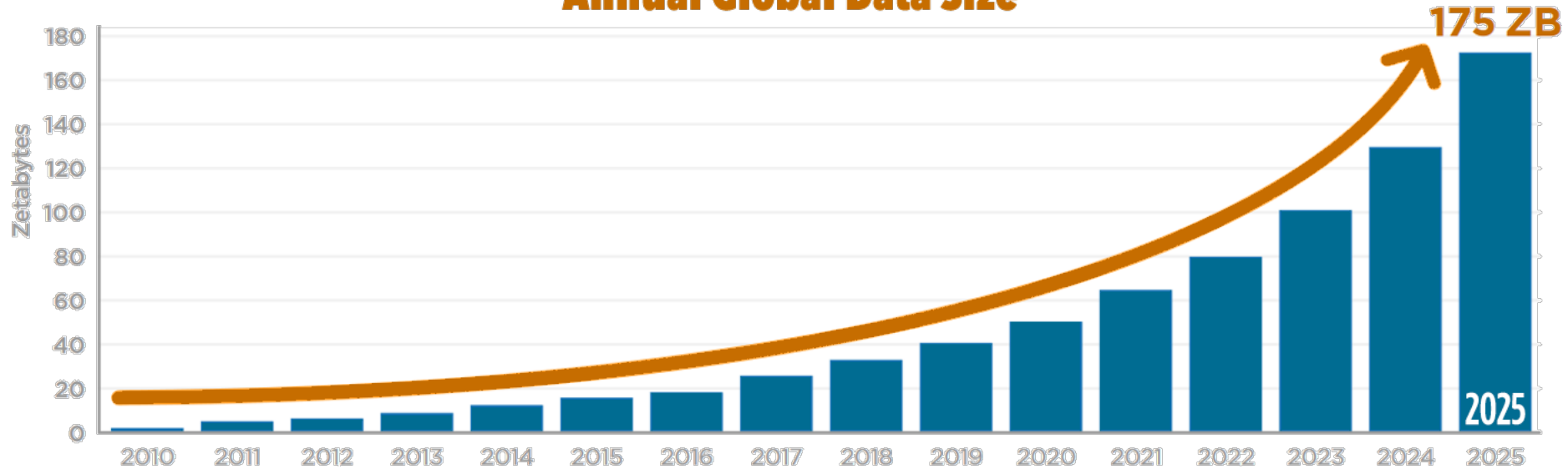


2021 This Is What Happens In An Internet Minute

Created By:
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Exponential Data Growth!

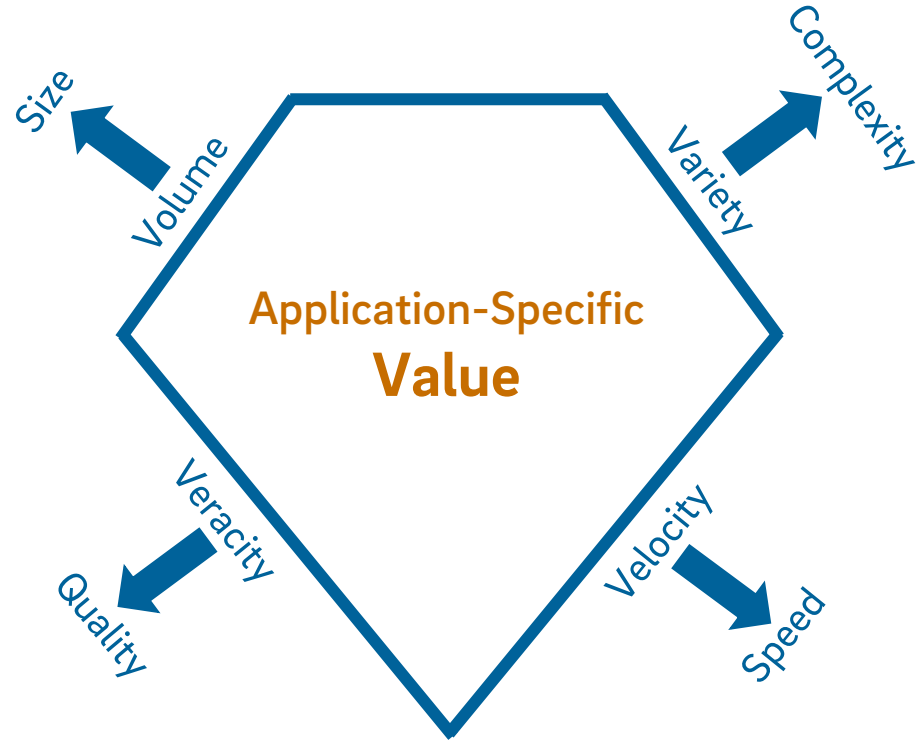
Annual Global Data Size



<https://www.datanami.com/2022/01/11/big-growth-forecasted-for-big-data/>

175 ZB = 175 Trillion GB!

V's of Big Data



Data Science: Finding connections in big data...

