

SMALL DATA

HOW SMALL DATA HAS MADE ITS WAY TO THE FOREGROUND AND NOW FORECAST AS A TOP DATA TREND FOR THE NEXT 5 YEARS.



**EXPERT TIPS FROM
INDUSTRY LEADERS ON ADAPTING TO THE GLOBAL SHIFT**

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INTRODUCTION

We've all heard of Big Data and how important it is but recently Small Data has come into the spotlight. Whilst small data has always been around, its accessibility and timely actionable insights have made it one of the top Data and Analytic trends to watch.

Gartner Says 70% of Organizations Will Shift Their Focus From Big to Small and Wide Data By 2025

It is fair to say that the rapidly changing landscape since the start of the pandemic has certainly acted as a catalyst to highlight the importance and use of Small Data. What were 'regular' behavioural patterns have now been altered and we are seeing new patterns that don't sit alongside their historical big data counterpart.

“Disruptions such as the COVID-19 pandemic is causing historical data that reflects past conditions to quickly become obsolete, which is breaking many production AI and machine learning (ML) models,” said Jim Hare, distinguished research Vice President at Gartner.

WHAT IS SMALL DATA

Small data is data that is 'small' enough for human comprehension. It is data in a volume and format that makes it accessible, informative and actionable.

The term "big data" is about machines and "small data" is about people

Wikipedia defines small data as follows:

"Small data connects people with timely, meaningful insights (derived from big data and/or "local" sources), organized and packaged – often visually – to be accessible, understandable, and actionable for everyday tasks."





THE DIFFERENCE BETWEEN BIG AND SMALL DATA USING THE FOUR V'S

VOLUME

BIG DATA DESCRIBES ENORMOUS CHUNKS OF UNSTRUCTURED INFORMATION WHEREAS SMALL DATA, IS ABOUT PRECISE, BITE-SIZED METRICS.

VARIETY

THE NUMBER OF DATA SET TYPES. BIG DATA WILL LOOK AT A RANGE OF THESE WHILST SMALL DATA WILL BE A FOCUS ON ONE TYPE OF DATA.

VELOCITY

THE SPEED AT WHICH INFORMATION IS RECEIVED AND THEN PROCESSED. NATURALLY BIG DATA WILL TAKE MORE TIME TO PROCESS AND THERE IS NOT POSSIBLE TO BE IN REAL TIME. CONVERSELY SMALL DATA CAN BE DELIVERED AND PROCESSED IN REAL TIME.

VARACITY

THE QUALITY ACCURACY OF THE DATA WHICH UNDERSTANDABLY IS EASIER TO CONTROL WITH SMALL DATA.

VALUE

THE WORTH OF THE DATA BEING COLLECTED. IT IS IMPORTANT TO NOTE THAT TO BE VALUABLE THE DATA NEEDS TO EITHER BE HELPFUL NOW OR IN THE FUTURE OTHERWISE IT IS A DISTRACTION.

WHY SMALL DATA OVER BIG DATA

Small data is less expensive and less time consuming

"A person needs to see a wine glass and a coffee cup only once to know the difference. Machines need thousands of wine glasses and coffee cups examples to make the distinction. The evolutionary advantage of human beings is a brain that quickly learns how to differentiate objects and instantly decide in "fight or flight" situations, and we need to design algorithms that learn in this way to scale the adoption of AI."

Rado Kotorov

Being able to recompute on the fly makes small data much like a GPS. "It allows you to navigate the problem and make changes," no differently than changing the route on a road trip.

Mark Stouse, chairman and CEO of Proof Analytics.



THE BENEFITS

Small data can be worked with all business models regardless of their size and therefore is widely and easily accessible. Big data is often owned by even bigger businesses and protected by GDPR which can make it more complicated to analyse.

Small data overrides the AI function in gathering insights quickly from it as it is easily processable by the human mind. Therefore the need for large complicated and expensive data machinery and ML is not necessary.

Small data is instant to access and assess. When previous big data became obsolete during the pandemic, we only had small data to rely on. We saw a huge shift in behavioural patterns, as during lockdowns everything moved to on-line, people worked from home, public travel use went down and spending patterns were completely new.

Big data technology is inherently more temperamental than small data technology. Therefore small data insights can be more informative with clearer actions as it is easier to translate.

CONCLUSION

Small data is readily accessible to all, providing easily attainable insights quickly. Whilst big data is still highly valued, it is expensive and time consuming. The beauty of small and wide data is its agility over big data models that allows us to provide solutions and re-act to the rapidly changing climate around us in real time,

If you would like more information on the skill sets you need to focus on for your career in small data or would like to know about hiring for small data practise then please do get in touch with us.



THE TEAM AT CORNUCOPIA HOPES THAT YOU FIND THESE TIPS USEFUL IN NAVIGATING THE EVOLVING WORKPLACE. SHOULD YOU HAVE ANY ENQUIRIES, PLEASE VISIT OUR WEBSITE AT CORNUCOPIAITR.COM.