



Big Data, Artificial Intelligence, and Human Intelligence

By Chris Pehura

Big Data constantly hits that wall. Despite all the investment in infrastructure and people, Big Data just can't generate further value. This is happening because we're treating Big Data and the stuff it contains like algorithms and artificial intelligence (AI) just like we treat traditional information technology. And brick by brick this treatment constructs the wall Big Data just can't crack. From a high level, here is the wall.

Brick 1 - Business knows business but doesn't understand AI. It's common for business to just delegate work to the data scientists and then have the data scientists come back with the right AI solutions. The problem is that the business has no context for how to correctly interpret the data provided by the

AI. This leads to misunderstandings, lost revenue, and higher costs.

Brick 2 - Data scientists know data but don't understand business, culture or psychology. For AI to work, the designers, the data scientists, need to understand the humans and events in the ecosystems the data is collected from. AI looks for patterns to automate our judgment and intuition and to anticipate future events and behaviors. The effectiveness of how AI does this is limited to the understanding of the data scientists.

Brick 3 - AI outperforms us humans. Though AI can outperform us humans through repetitive brute-force steps that's all AI is good at. AI cannot think outside of the box. Rather it often gets stuck in thinking a certain way. If an AI can beat a human at Chess or Go, that same AI can be blindsided by another human's approach and playing style. Without human intervention AI cannot learn from its mistakes.

Brick 4 - Us humans outperform AI. We humans with detailed subject matter expertise and the right tools often outperform AI. Humans can look at something and give a ballpark figure. We can take a small sample of data points extrapolate a conclusion and say it looks right. But we do get tired and we do make mistakes. AI helps us double check our work and keep us on the ball. We humans must learn to balance what we're good at with what AI's good at.

Brick 5 - AI makes big mistakes. AI is only as good as its design and the data it has access to. AI doesn't have the common sense we have to give data the benefit of the doubt or take suspicious data with a grain of salt. We humans will always be needed to interpret the data AI provides and then improve the AI's accuracy.

To achieve the full benefits of Big Data we need to achieve the full benefits of AI. Like us humans, AI is only good at doing certain things. For Big Data to work we must always balance and re-balance our investments, capabilities and competencies of our human intelligence with our artificial intelligence.

About the Author



Chris Pehura

Data-centric Business Management



Chris is a management consultant with a data emphasis helping Fortune 100/1000 companies strategically evolve and reinvent their businesses to maximize their revenue growth. Through realignment, to overhauls, to rebuilding things from the top down and ground up, he integrates and solidifies leaders, strategies, and solutions into all aspects of the organization. As practice director for [C-SUITE DATA](#), a Canadian based consulting firm specializing in data and Big Data, Chris serves as a coach, trainer, and the voice for how data is the new capital that drives, multiplies, and maximizes revenue growth.



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