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DEVELOPING EMPLOYEES

Your Team Doesn't Need a Data Scientist for Simple Analytics

by Kon Leong

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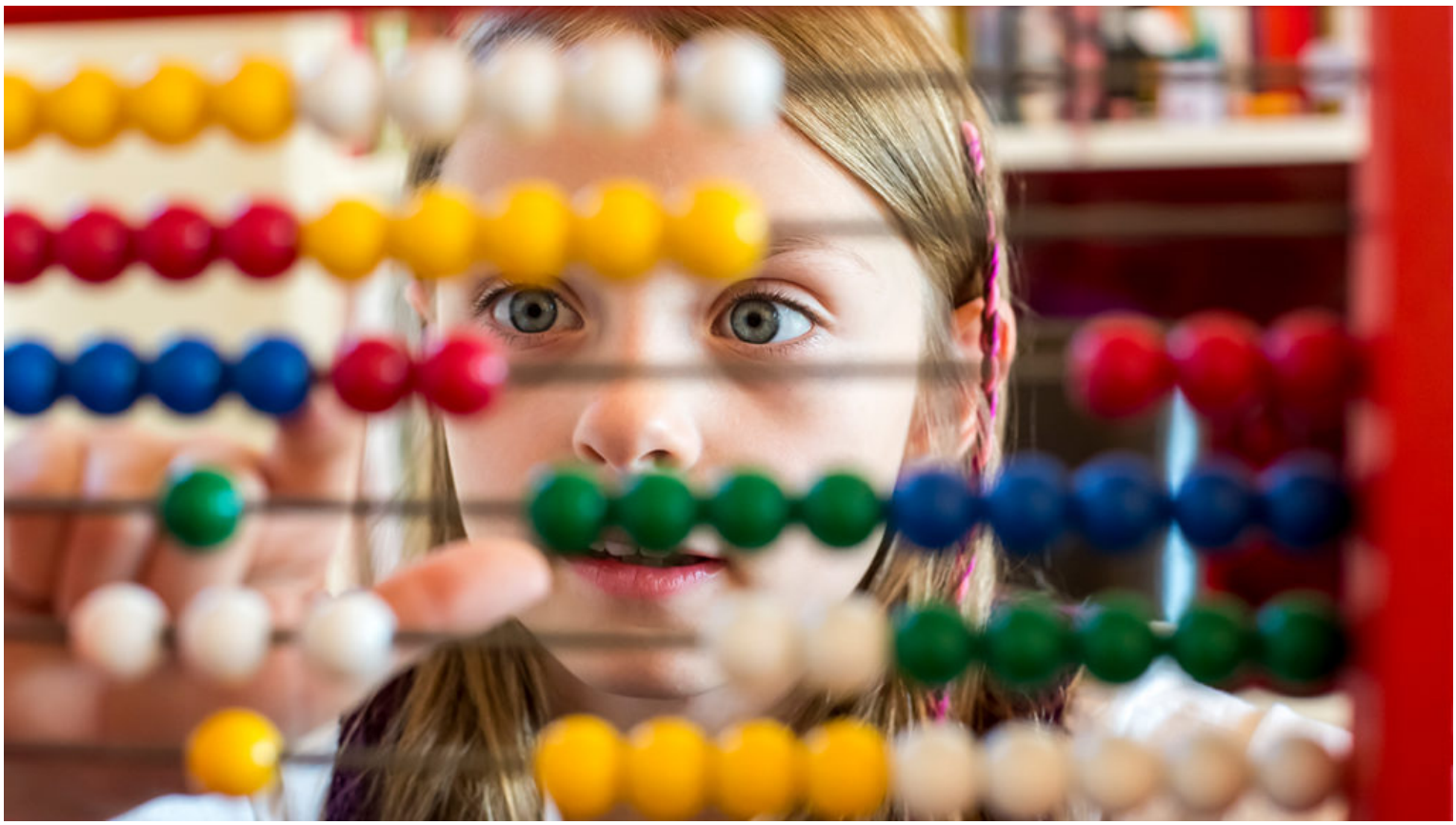

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Arthur Nielsen, market research pioneer and founder of the Nielsen Corporation, once said, "The price of light is less than the cost of darkness." As data proliferates across the enterprise, this observation by Nielsen is rendered even more relevant, because data represents the unlit fuel that has the potential to light the darkness, but which often lacks the spark of analytics that enables us to see.

The mission of enabling data analytics in today's enterprise is hobbled by the lack of the requisite skills in the marketplace, including: advanced statistics/mathematics, new analytics methodologies, advanced systems analysis, business fundamentals, regulatory and legal understanding, and general IT technical and data architecture skills.

To cope with the shortfall in market supply, companies need to better leverage their existing talent. Having founded a data management company and worked with hundreds of organizations over the past 20 years to execute their information management and analytics initiatives, I've found the groups that are able to successfully utilize their company's analytics technologies often take the following approaches:

Build a team. One strategy is to take the team approach to cross-pollinate and commingle the required skillsets; bringing together a diversity of skills and backgrounds from within your organization to achieve a common goal is a highly effective method.

Start by identifying the characteristics and needs of your organization's environment. For example, highly complex product and service environments will require domain experts or subject matter experts. Simpler product environments will require experts in operations, logistics, and supply chain. Formulate teams that reflect your particular needs, and consciously design your team's framework and composition to transfer skills across functional or organizational boundaries.

Find the supporting players. I suggest going outside your department in order to lay the foundation for functional analytics initiatives. It will be productive to search across your organization for a few relevant skillsets that will enable your team to make use of the data available:

- Data analytics experts: They understand the basics of analytics and can navigate between what's possible and what's relevant, using the latest methodologies and technologies available.
- Data experts: They understand the data formats, the layout and content, especially the data schema and interrelationships.

- Data architects: They know how data is stored and architected, including the plumbing that connects them. The perfect theoretical analytical approach can crash ignominiously when it takes an impossible amount of time to simply access the data. Particularly in these days of heady cloud adoption, one should be sensitive to latencies involved in moving data to and from the cloud.
- IT technology and process experts: They understand the nature of the data flow and operational processes. They play an important role in leveraging available IT tools to access data while being aware of key issues.
- Records managers: They are the curators of business records, both physical and digital. They know the locations of important documents and how they are categorized and catalogued.

Seek creativity and curiosity. The foregoing is a good start at convening a team of diverse skill sets in order to enable, if you will, "analytics for the rest of us." However, there is one set of essential traits to be found in your team that will drive the initiative. Seek individuals who are innovative, frugal, and creative, who produce maximum results with minimal resources. In data analytics, such combinations of creativity and flexible thinking can make a huge difference in producing actionable results, while reducing time, effort, and costs.

For example, I spoke with one data analyst at a payments processor who claimed to predict riots with a high level of accuracy in the wake of the Ferguson unrest. One would have thought it was from comprehensive analyses of complex demographics and collections of red-flag news indicators of social discontent. It wasn't. He simply tracked the sales of riot-related components such as crowbars and flammable fluids from major hardware outlets and looked for spikes in purchases that exceeded a certain threshold.

This combination of creativity and curiosity is difficult to teach but essential to effective analytics. Finding team members with such characteristics can make all the difference.

Make the data usable. Given that you're unlikely to find an abundance of individuals with exceptional data management skills, it's necessary to employ methodologies and technologies that present data in an accessible, visual, and intuitive fashion.

This has been demonstrated in our first-hand experience using internal enterprise data already under management for compliance and legal purposes to identify the "go-to" people in an organization. Rather than conducting complex analyses of high performance metrics, dictated by

the type of role or function, and customized for each department or region, we used graphical analysis to discover a much easier proxy to get to the same approximate result: We analyzed individuals' inbound communications to assess the frequency of questions and from how high up the organization they came, and then analyzed the outbound communications to assess the frequency of answers and to how high up the organization they went. The go-to people lit up like a fireworks display.

Note that this approach identified the top performers regardless of function or role, and took a fraction of the effort required in more traditional approaches. It is the technology that can make analytics tasks more intuitive and visual, thereby reducing the need for deep technical or statistical skills.

Consult legal and compliance stakeholders. Finally, in order to ensure that your analytics initiatives are in compliance with legal requirements and new privacy regulations such as GDPR and the California Consumer Privacy Act, it's advisable to consult the right legal and compliance stakeholders:

- Legal and Compliance Managers: They understand at a high level what data can be stored, and how they can be used, while minimizing the risk of running afoul of legal and regulatory guidelines.
- Regulatory Data Managers: They understand which data is retained or deleted due to regulatory obligations, which can increase or reduce capabilities, and possibilities in data analytics projects.
- Data Protection Officers: A new and timely role, these privacy experts can help analytics stay on the right path and avoid triggering penalties from incoming and expanding privacy regulations.

Lighting the Path Ahead

Data analytics is a powerful and promising source of competitive advantage. To enable such a strategy in the face of a difficult shortfall of the requisite talent in the marketplace, one must fall back on developing existing employees through cross-training and cross-pollination of team members and experts.

To embark on this strategy, we shouldn't wait for that singular blazing torch-bearer to light the darkness. It is more pragmatic to help the rank-and-file member to become a candle, and from the collective light, illuminate the darkness.

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