

# Beyond Big Data in K-12 Strategic Planning

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## Introduction

School districts routinely examine a multitude of “Big Data” sets in order to gain insights into individual student progress, school improvement, district strategic goal attainment, marketing impacts and many other uses. Most district leaders spend days pouring over massive amounts of data via charts, spreadsheets and crosstab tables to attempt to gain understanding of performance gaps and hopefully determine causality to drive future decision-making. These activities are very important as these data can provide useful historical insights into what worked and what did not move the needle, or more specifically:

- Identifies patterns and trends: By analyzing past data, you can identify recurring patterns and trends.
- Provides a foundation for decision-making: Historical data can provide a solid foundation for making informed decisions. It helps you understand the impact of past actions and the factors that contributed to success or failure.
- Establishes benchmarks: Historical data can help you establish performance benchmarks and track progress over time. This allows you to measure your performance against past results and identify areas for improvement.

However, it is not unheard of to find district teams somewhat immobilized by the crush of Big Data and inability to clearly align future strategic plan goals and objectives using these types of data. When it comes to K-12 school district strategic planning the reliance exclusively on



## Information Funnel

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historical big data may not lead to effective strategic decisions and the associated future improvements and growth. The problem lies in the fact that:

- Past performance is not always indicative of future results: Just because something worked in the past doesn't mean it will work in the future. Emerging educational markets, technology, parent preferences, regulations and different state assessments are ever-changing, which can render historical data less relevant for planning purposes.
- Unforeseen events can disrupt trends: Historical data is based on past events, but it cannot account for unforeseen events such as natural disasters, economic downturns, or geopolitical shifts. These events can significantly disrupt trends and render historical data less reliable.
- Missing emerging trends: Historical data is often based on established patterns and behaviors. It may not be able to capture emerging trends or disruptive innovations that could significantly impact the educational landscape and associated strategic directions..

## A Broad Approach for Strategic Planning

The solution to this problem, relative to future strategic planning, is that school district leaders need to think more broadly about “data” and consider information other than the “quantitative” and delve into the “qualitative” and other sources of critical information.

Roger Martin’s (2007) information funnel is a conceptual model that illustrates how broad sources of information are gathered, processed, and transformed into insights throughout the strategic planning process. This model helps organizations effectively leverage information to make informed decisions and drive innovation.

The funnel metaphor represents the process of ingesting and analyzing vast amounts of information into a focused set of actionable insights. At the top of the funnel, organizations gather a wide range of information from various sources, including market research, student performance, school climate, instruction, curriculum, etc. As the information moves down the funnel, it is systematically filtered and analyzed to identify patterns, trends, and opportunities.

The key stages of the information funnel are:

1. **Mystery:** At the top of the funnel, organizations are faced with a mystery: an unknown problem or opportunity. This mystery is often a complex and ill-defined challenge that requires creative thinking and exploration. They engage in a process of gathering a wide range of information from diverse sources. This stage involves exploring different

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perspectives, challenging assumptions, and generating a variety of ideas. The ideas and thoughts generated during the mystery state are also influenced by the principles, values, and philosophies of the school district.

2. **Heuristic:** A heuristic is a way of organizing large amounts of information to help us process the world around us more efficiently. As organizations begin to analyze the information gathered, they develop heuristics, theories of action, or hypotheses to move beyond the mystery and guide their decision-making. These heuristics are based on past experiences, intuition, and best practices research and not necessarily hard data. Organizations then analyze and synthesize the information to identify patterns, trends, and insights. This stage involves critical thinking, data analysis, and decision-making.
3. **Algorithm:** Once a successful heuristic has been identified, organizations can further refine it into an algorithm. An algorithm is a precise set of steps that can be followed to solve a problem or achieve a specific goal. Evidence, data, and science can allow you to move beyond heuristics to algorithms. Organizations integrate the insights gained from the previous stages into a coherent strategic plan. This involves aligning the plan with the organization's overall goals and objectives, developing actionable strategies, and allocating resources to support implementation.

## Conclusion

In conclusion, school district leaders engaged in strategic planning are essentially attempting to be “futurists.” Trying to plot a course into the future with only historical data to inform the path forward can lead to less than effective solutions and strategies. This is why Martin emphasizes the importance of **balancing analytical and intuitive thinking** throughout the strategic information funnel process.

While analytical thinking is essential for processing and analyzing information, **intuitive thinking is crucial for generating creative ideas and making innovative leaps.** By effectively combining both modes of thinking, school districts can unlock new opportunities and achieve their vision for students.

*Using a well-designed database software application for K-12 strategic planning will enhance innovation and transform your plan into a progress monitoring system for timely decision-making. Software systems that are designed to help districts implement the components of strategic alignment can greatly enhance the probabilities of success for students and faculty.*

**Contact:** Dr. Chris Balow at Voyager Education to learn more about the “**Beacon**” software platform which is designed expressly for K-12 education strategic planning. Email: [cebalow@voyagered.com](mailto:cebalow@voyagered.com)