

Chapter 1

The Communication and Translation of Data and Analytics–Driven Insights

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ABSTRACT

This chapter explores and develops a framework to more effectively develop and utilize data and analytics-driven insights within a business. The key components of the framework are first derived from how the business, the analyst, and the computer communicate with each other. This results in clear distinctions between the language of the business and the language of the computer that positions the analyst within a conceptual chiasm. This positioning means that the analyst must first and foremost play the role of translator. The implications of this positioning within the framework arguably creates a more consistent conceptual model with more explanatory power than is typically found in popular business blogs and articles on the topic. As a result, potential strategies are developed from the framework to enable more successful data and analytics efforts, hiring practices, and communication strategies.

INTRODUCTION

Leveraging data and analytics within businesses is increasingly important to maintain competitive advantage and to maximize the utility of the unprecedented amount of data being generated by not only customers but by competitors themselves. The emergence of data has largely created and proliferated an entirely new language from which to understand the world. While this new language is littered with potential ripe fruit for business picking, it is a very different way to think and speak. It is heavy in logic, mathematics, statistics, precision, and is much more akin to computer programming languages than anything spoken today in business settings. This implies that a person fluent in data and analytics must possess the training and aptitude of these highly technical disciplines that requires years of education and on-the-job training. Suffice to say, most of the workforce today does not have nor will likely possess this fluency. However, the expectation and current trajectory is that data and analytics will be as

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pervasive in business as organizational charts, meetings, and coffee. This creates a critical point that is widely talked about in one form or another on “pop-business” articles and blogs: how do you build and utilize data and analytics in today’s business climate.

Each of these blogs, books, and experts has a theory as to how to build and effectively utilize data and analytics, and many highlight the importance data and analytics communication strategies. The typical communication strategies proposed focuses on traditional methodologies utilized to describe complex topics from one person to another person with some emphasis placed on the importance of understanding the technical foundations of field (or at least the terminology). A prime example is the work of Davenport and Kim (2013). These strategies mimic approaches commonly used by journalists who simplify mathematical, scientific, and philosophical articles into headlines for the common public. However, a key missing component of these strategies is that the language of data and analytics doesn’t live in the realm of person to person communication as data largely lives within computers. Thus, the truest communication channel in the language of data and analytics is between computer and person, not between people. The role of the analyst (i.e. person fluent in data and analytics and business speak) within the business is that of a translator: they listen to the language of the business, translate that message into the data and analytics language within a computer, receive a response, and translate that response back into the language of the business. This is fundamentally different than the standard strategies recommended in data and analytics communications. These strategies emphasize simplification of the message to meet understood business needs while this “analyst as translator” paradigm involves interpretations between languages that are primarily incompatible.

To understand how the data and analytics language is largely incompatible with business language, first consider that within the data and analytics language (or that of the computer) there is no emotion or feeling. However, by human necessity any language within business to communicate between people requires or, at the very least, implies emotion. While some may not want to believe the importance of emotion in human communication, consider the rare case studies when a person has suffered a brain injury or tumor that ‘shuts off’ the emotional part of their brain. These people are completely incapable of making any decision to the point that it will paralyze them (Damasio, 2005). This include even the most mundane tasks such as deciding what clothes to wear that day. The obvious implications of no emotions in business communication means that nothing will ever be decided and highlights a major challenge for the analyst as a translator.

Another consideration in understanding the incompatibility of these languages is that there are gaps in vocabulary simply because the data and analytics language is only concerned with a small space with respect to spoken languages. For example, there is no concept of “maximizing a business strategy” within data. The analyst must translate this into a query that entirely consists of 0’s and 1’s and statistically aggregate that result into a mathematical entity that might translate to a business strategy abstraction. This is equivalent to there being no word in Spanish for the English word “insight.” In this case, an interpreter must figure out how to convey meanings from completely different paradigms of thought.

Ultimately, the incompatibility of business and data and analytics language may be more fully explained and realized by considering the concept of linguistic determinism. Linguistic determinism hypothesizes that languages themselves limit and determine human thought and knowledge. As Nietzsche wrote “We cease to think if we do not want to do it under linguistic constraints” (Deutscher, 2016). There are two studies that highlight the potential power that language has on limiting our thoughts. The first is a study of people who grew up speaking Hopi, a native North American language, and their inability to think about time because their language lack verb tenses (Whorf, 1956). The second is a study of those who

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