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International Auditing and Assurance Standards Board
Via upload to IAASB website

Dear IAASB,

Below are my comments on the Data Analytic Working Group's (DAWG) *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics.*

My main comment is for the DAWG to be more bold and visionary. For example, paragraph .26 states "The use of data analytics in the audit of financial statements is at an early stage…" If data analytics is about CAATs then there are already textbooks on using CAATs; if data analytics is about graphing and interpreting unstructured data then business intelligence software and data warehouses have been around for a while; if it is about "big data" then the DAWG may consider that "big data" was what existed on the "big iron" mainframes of the 1970s. The DAWG should be bolder and more visionary, and take on directly the following questions:

Why are data analytics popular now (again)?

The DAWG could more fully understand and explain why data analytics are currently popular. Computer assisted audit techniques (CAATs) have been run by auditors for over forty years. There is not much new about data analytics in this sense; even text-based tools could produce histograms. So it would be good for the DAWG to more precisely answer what is different this time around about CAATs or data analytics. Perhaps CAATs go in and out of favour as audit methodologies shift their focus between tests of controls and substantive testing. Or perhaps it is that auditors run data analytics but then eventually realize they are best run by management as part of internal control, and the data analytics then migrate out of the audit and into management control systems.

How much can the audit be automated?

The DAWG should be clearer if data analytics is about audit automation or not, and in particular automated collection of audit evidence. One part of the paper mentions data analytics support "analysis of the entity's data across 100% of a population" (.11), while another states "the use of data analytics in an audit of financial statements will not replace the need for the auditor to exercise appropriate professional judgment and professional skepticism" (.29). I suggest the DAWG should be much more bold and envision that data analytics, use of technology, artificial intelligence, etc. present opportunities for audit automation, for transforming auditing, including

assisting with the application of professional judgment. If the DAWG is clearer about a vision of increased audit automation, then it probably will become clearer which, if any, auditing standards may need revision.

To what extent are risk-based auditing standards barriers to data analytics?

One standard-setting challenge for data analytics is the current emphasis in the standards on risk. While the concept of risk is central to auditing, the standards place so much emphasis on risk assessment that it may displace what the audit is about – the collection of evidence. Although techniques such as graphing to detect outliers or unexpected transactions may be helpful, risk assessment in the standards focuses on more general aspects of an organization (industry, regulatory, strategic or operational aspects of the entity) or on non-routine changes to the entity, none of which lend themselves to data analytics. In particular, data analytics are of little help with responding to risks that require special audit consideration (significant risks as defined in ISA315). If the relative emphasis in audit standards was less about risk assessment and more about collection of evidence, the value and need for data analytics may then be clearer: data analytics are an efficient and effective way of collecting audit evidence. So exploring potential revisions to ISA315 or ISA500 may be useful and I support the DAWG to continue to coordinate and be directly involved with the working group to revise ISA315, as noted in .32.

The DAWG could acknowledge that complicated accounting diminishes the application of data analytics. Perhaps the DAWG can develop an argument that a criteria for accounting standards is their auditability and in particular, whether they can be audited via data analytics. This is not to abandon what is the theoretically correct accounting but instead to link the qualitative characteristic of understandability to whether something can be audited via data analytics: if an auditor can audit something with a data analytic, very likely the accounting and resulting financial reporting is understandable; if an auditor cannot audit something with a data analytics, the accounting standard setter should pause and consider the decision making relevance (and therefore the overall utility) of the proposed accounting. If it is too difficult to audit with a data analytic, it may be something users will have difficulty understanding. To illustrate: monthly retail sales can be usefully audited with a data analytic (a simply graph of sales perhaps by product and geography) and the same graph can probably be used by analysts and other users, because it is understandable.

Why doesn't the profession issue data-level standards?

The accounting profession's focus is financial reporting. There are no standards for charts of accounts or how to code journal entries. The accounting profession embraced financial reporting over accounting or bookkeeping. There are good reasons for this – financial reporting is what is relevant to users' decisions. However, in doing so the profession gave up the data-level space to database companies, software companies, ERP vendors, etc.

It may be useful for the DAWG to suggest to accounting standard setters that they should attempt to reclaim the data-level. What this means is that because accounting standard setters have

focused on financial reporting (i.e. there is no accounting standard that says at the data level accounts receivable records should have at least X or Y fields), there has been a proliferation of various IT and business systems and ways of recording accounts receivable that have similar information but also different ways of storing the information, all of which create barriers to use of data analytics and automation (in effect, barriers to the future) because they increase the cost of acquiring, analyzing and interpreting data. Of course, even the financial statements themselves are not standardized, usually because it is up to management to best present its results and determine fair presentation. But the consequences of this lack of standardization are fairly significant barriers to the effective use of data analytics. Furthermore, lack of standardization at the data level should be recognized as inefficiencies in our global system of bookkeeping, accounting and financial reporting. The strategic risk is that these inefficiencies are opportunities for others to add value and displace the profession.

Involvement at the data-level would likely require that the DAWG become involved in more technical activities, such as activities of the Internet Engineering Task Force (IETF). It is very difficult without something like IETF standards to do something as simple as automatically confirm accounts payable and receivable. The profession has demonstrated it can do this: XBRL was a result of a tremendous amount of effort but the standardization supports automation of an important part of the financial reporting process.

In summary, DAWG can recognize that the journey may be revolutionary rather than evolutionary, the opposite of what is stated in .42, and promote a bold vision of the audit of the future with implications for accounting as well.

Sincerely,

Wayne Morgan