 Excel the Killer

“Killer app” is a bit of bizspeak that has been diluted by overuse. But, like “disruption,” when used properly, it refers to a critical element of technological progress. A killer application is the piece of content that proves so valuable that it leads to the adoption of the hardware with which it is associated. For example, NFL football was the killer app for HD television. The original Super Mario Bros. was the killer app for the original Nintendo, just as Tetris was the killer app for the Gameboy.

The original killer app for the personal computer was VisiCalc, a spreadsheet program that ran first on the Apple II. As Byte magazine wrote in 1980, “VisiCalc is the first program available on a microcomputer that has been responsible for the sales of entire systems.” The ability to run $100 piece of spreadsheet software drove the sales of a $2,000 system (approx. $6,000 in 2014 dollars). This should not be all that surprising. Handling large amounts of quantitative data is where computers’ comparative advantage has always been most evident. Indeed, until the end of the 19th Century, “computer” was actually a job title for an individual who carried out extensive calculations.

Today is much the same. Microsoft Excel is the preeminent spreadsheet application and, as described in 2013 Fortune headline, the “most important software application of all time.” The article went on to refer to Excel as “ruining the world” because recent user errors had undermined Harvard professors Carmen Reinhart’s and Kenneth Rogoff’s work on government debt levels, been the key factor in the $6.2 billion London Whale fiasco, precipitated the downfall of MF Global, and led to Fannie Mae overstating its profits by $1.3 billion, among other adventures.

When things go that spectacularly wrong, the lawyers get brought in. Lawyers responsible for cleaning up such debacles need to understand Excel to even begin to comprehend the havoc into which they have been thrust. But, sometimes, the lawyers themselves are the source of the Excel misstep. The Fortune article also tells the story of a Cleary Gottlieb junior associate who accidently committed Barclays to assume 200 toxic contracts in its deal to buy Lehman Brothers. Some hidden rows in an Excel spreadsheet ended up in a PDF electronically filed with the bankruptcy court. An Above the Law post on the Barclays kerfuffle observed, “And, as we all know, they don’t teach Excel in law school and they really, really should.”

For the uninitiated, there are two aspects of Excel that are severely underappreciated.

First, Excel is not just for numbers. To the software, numbers and text are interchangeable forms of data. Mathematical formulas are one small subset of the spreadsheet functions available to sort, filter, combine and disaggregate data. Thus, names, geographic information, dates, etc., are all amenable to the spreadsheet treatment.

Second, Excel is often the mechanism by which companies use and communicate their structured data. To be simplistic, structured data is data that resides in databases, such as Access, Oracle and SAP. Common structured data sets include sales figures, inventory, finances and human resource information. Most databases can be queried, and many offer advanced report-generating functions. But, by far, the most common method for turning structured data into usable reports is to export raw query data (e.g., occurrences of X and Y between Date 1 and Date 2) to a spreadsheet and then organize it in Excel. A raw data dump into Excel is also quite common in litigation, where parties export raw data rather than give their adversaries access to their proprietary databases.

It is hard to overstate just how central Excel is to data-driven corporate life. Likewise, it is near impossible to calculate how long it would take an individual to manually perform many of the tasks that Excel completes in seconds. That is the power of Excel … and also its peril. Mistakes are very easy to make but often difficult to recognize or remedy.

This column is not a polemic for or against Excel. Excel is simply an extant fact of corporate life. It is not necessary for all lawyers to know Excel. But, much like reading a financial statement, Excel acumen can be a major advantage in digging into and understanding how a business operates. Thus, as we approach CLE cram season, let me heartily recommend that more lawyers use their credit hours on the original killer app. ACC