

LOST AT

SEA



Appraisers have to navigate a flood of data as never before. Here are five ways advanced analytics is influencing technology. *By MARK R. LINNÉ, MAI, SRA*



The “big data” phenomenon is having a significant influence on the valuation profession and related stakeholders. The seemingly endless influx of information, facts, figures, numbers and charts is leading regulators to hold banks to higher standards, and banks, in return, are holding appraisers to more stringent requirements. To help manage the data overload, appraisers have adopted various technologies, but the valuation profession remains woefully underserved where innovation is concerned.

For example, most technologies developed for appraisers are desktop applications, although desktop computers are a dying breed and laptops have seen a dramatic decline in the last 24 months. Mobile technology is the clear direction for the future; an informal poll of appraisers revealed that about 30 percent use iPad or Android technology in performing market analysis.

Appraisers are, by and large, still clinging to the precept that the appraisal process is tied to the form, and all solutions relate to making the form faster in order to increase efficiencies. However, the truth is that solutions tied to the residential appraisal form or the smart word.doc for commercial appraisals are likely to founder.

Those clients include government-sponsored enterprises Fannie Mae and Freddie Mac.

With the Uniform Appraisal Dataset, both GSEs have enhanced their ability to analyze a database that's expected to grow to more than 100 million properties within a decade, making them privy to the most granular data ever collected on residential properties. How would it look if clients knew more than the professionals hired to analyze the data?

Appraisers must promote decision-making based on predictive analytics. In a world that turns everything into data, valuation professionals who master big data stand a chance to help their clients, outperform their competitors and widen their lead.

By sifting through aggregated data, appraisers can use regression analysis to uncover the levels of correlation that are hidden to casual and, in some cases, even expert observation.

Techniques such as regression analysis have only within the last decade been embraced by many in the valuation profession. It is an effective tool, but there are others, such as geographically weighted regression, non-linear modeling and Monte Carlo analysis, that hold great promise in looking even deeper into data as a means of gaining market insight.

Real estate organizations are seeing the potential in advanced analytics as well. When the National Association of Realtors



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Big data is one of the five biggest trends redefining the valuation profession and related industries and it's one that appraisers must embrace if they want to thrive. Four other big tech trends — which are coming at us with breathtaking speed — are cloud computing, advanced analytics, augmented reality and mobile technology.

Big Data

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Cloud Computing

If the promise of big data is to be fulfilled, there needs to be a way to store, process and analyze data. Cloud computing is the answer.

In the simplest terms, cloud computing refers to saving, storing and accessing data off-site instead of on an individual computer hard drive or other local storage device. The Internet provides the connection between the device and the database.

The importance of cloud computing to the typical appraiser is that it leverages virtual servers that can be linked so that data can be efficiently and effectively processed and analyzed. And as the move toward mobile devices continues, the power of the cloud will be necessary to provide the computational power required for robust analytics.

New Analytics

The explosion of big data and cloud computing leads to a need for new analytics tools that augment an appraiser's market knowledge; spreadsheets are becoming a thing of the past.

Simple regression analysis, among other techniques, is leading to improved predictions.

announced the hiring of Todd Carpenter as managing director of data analytics in October 2013, its news release noted, "Today's ever-evolving technology world is transforming the real estate industry, not only with new applications and tools, but also in generating volumes of information about how people approach and conduct real estate transactions."

It's important to remember that an appraiser's intuition and experience still plays a part in data-based decision-making. The ideal real estate valuation professional is one who integrates intuition with number-crunching to gain market insight.

Augmented Reality

Augmented reality is a way to use technology to place a virtual layer of data over the real world with geographic specificity — in other words, anchoring the data to a specific address or other label so as to facilitate market analysis and valuation.

It is no longer about what you can see but about what you can't see — linking elements such as demographics, zoning, economics, legal information and market data trends through the appropriate geography. The result essentially is the landscape of valuation. Touch one point and know all the data



The ZipRealty app offers users a layered view of homes for sale.

relevant to that geographic area.

Augmented reality essentially is a blend of technologies that allows appraisers to experience a digitally enhanced real world. Applications by ZipRealty and Trulia, for example, allow augmented reality views of homes for sale. The technology appears to be maturing beyond the “gimmick” stage, with market participants such as CoStar’s Go application layering a multitude of different data layers into one application tied to a property’s physical location. Users can look at plat maps, floor plans, listing brochures, exterior and interior photographs, demographics and neighborhood-level analytics, among other items.

Mobile Technology

Goodbye desktop and laptop, hello tablet, iPhone and iPad.

Desktop technology has been diminishing in popularity among all segments of the market and industry analysts say this trend will continue. Originally, the shift was from desktops to laptops, but recent sales figures show that tablet and iPad and Android devices have taken

the lead in virtually all consumer and business needs. Until recently, mobile devices had less robust analytics capabilities, but that’s changed, and the empowering influence of cloud computing will continue to make mobile devices the obvious technology choice.

Efficiency suggests that it would make the most sense to use a single device to gather, analyze and deliver an appraisal rather than multiple devices that need to be synchronized. And with that single device in the palm of their hands, appraisers will be able to complete an appraisal in the field without having to return to the office.

What Should You Do?

The valuation profession is changing because of big data, and appraisers need to utilize new technology and resources and take advantage of everything that comes with that.

It’s true that any new technology faces challenges to adoption, and any new technology carries with it a certain amount of risk, but if the valuation profession fails to have the

necessary tools to mine, refine and understand key data, analytics could be the problem and not the solution.

However, it’s important to note that new technology will never replace the experience and know-how of traditional valuation professionals, but instead needs to be integrated into the process. Appraisers have the opportunity to transform themselves into the nation’s foremost real estate analysts; the profession needs appraisers who are confident in both their experiential knowledge and advanced analytics.

The best way to prepare is by being aware. Embrace new techniques and leverage courses and books to help you hone statistical skills. Appraisers who actively seek new technology and new tools, and figure out how they can effectively use data and tools together, will have the competitive advantage. ■

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