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# REAL ESTATE RESEARCH & VALUATION USING THE INTERNET

by James R. MacCrate, CRE, Scott S. Metro, & David Watkins

## INTRODUCTION

In recent months, we have been hearing and reading a lot about the potential for faster, more flexible, easily updateable, and less expensive real estate research and valuation using Internet and World Wide Web (WWW) resources. While the potential for revolutionary change and dramatically improved operations may exist, there remain many pitfalls and risks along the way. This manuscript explores both the possibilities and the pitfalls that exist in this area; identifies real estate research and valuation professionals in both large firms and small firms for possible winners and losers as firms adapt to the new technology; and finally, suggests appropriate strategies for research.

## ABOUT THE AUTHORS

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## REVIEWING THE STATE OF THE ART

Most of the raw data items that are required for a real estate consulting, valuation, or research project can now be accessed from a combination of sites on the Internet's World Wide Web. These raw data items can be supplemented by proprietary data maintained by consultants in their confidential files. All this information can then be integrated into a comprehensive presentation format, complete with text, graphics, interactive maps (GIS), and even, if desired, audio and video, and an on-line discussion capability. Reports can be updated on a daily, or even more often than a daily basis, as new data is fed into report templates. Buyers of information can specify "alerts," to be triggered by specified events. In other words, if desired, the report can become almost a "real-time," living document, rather than a one time snapshot of conditions at a point in past time. The model for this Internet-based research/valuation presentation methodology is the so-called "portal" concept. In Internet parlance, a portal is a multi-purpose Web page that serves as a "personal newspaper" and lets the

user select what items will be presented; in what detail and what format; how the items will be presented on a page; and how frequently the information will be updated.

Most of the traditional “search engines,” like Yahoo, Excite, and Infoseek, have expanded their offerings and changed their business, becoming multi-purpose portal sites, not just single-purpose search engines. They have done this in the attempt to hold users longer and provide more comprehensive services to them. They have become focal points, which assemble multiple links to other pages. It is possible, in the technical sense, to create the equivalent of a portal page for a real estate valuation or a real estate research project. This is now being done by a few of the more technically advanced consultants and firms for first-stage research on communities or market areas, and for some types of valuation — most often the less complex single-family residential project. However, it is far from being an automatic process or one that lends itself to quick and easy “fill-in-the-blanks” types of solutions. Next we will examine a few of the reasons why this is so.

### **BUMPS ALONG THE ROAD TO AUTOMATED VALUATION**

Real estate consultants who engage in various types of automated or Internet-assisted valuations or research projects should be aware of some of the issues that make this far from a foolproof process. These include issues related to: quality control and data reliability; pricing; data assembly or integration; security and confidentiality; and liability.

### **QUALITY CONTROL ISSUES**

First of all, serious quality control issues exist with real estate data on the Internet. There are many data providers, but few with established track records for on-line data provision. Many of the same issues that arise with traditional print data also appear with on-line data. How current is it? What is the level of detail? How trustworthy is the data from a given provider?

Furthermore, the speed of change of on-line data raises some unique issues not faced in the print format. For example, in a site that updates its data daily, how does a consultant cite or reference the version used? Similarly, if the morning’s data is not preserved on-line in the evening’s update, how can the consultant check on the accuracy of completed work? It is likely that the consultant’s due

diligence will come to focus more on the overall, day-in, day-out reliability of the data provider and its collection and presentation procedures, more than on the contents of any one screen.

On the screen, as with printed reports, there is also the issue of the “illusion of truth” that surrounds official-looking report data. (“If it is on a screen, or in a report, and looks official, it must be true.”) The same kinds of due diligence procedures and verification of sources are called for, whether the information be on paper or on screen.

### **INSTABILITY OF “LINKS”**

Some consultants have suggested that they can assure a steady stream of current, reliable data, and almost “real-time” ongoing property valuation, by linking to a number of Web sites, and feeding information from those sites into a pre-defined set of formats or templates. While this option may be attractive in theory, it does not appear that the Internet state-of-the-art can support it in a practical way, today. Web users are well aware of the frequency with which sites can change character, quality, presentation format, and can even appear and disappear in a matter of days.

It may be too early in the evolution of the Internet to attempt such an approach, using public Web data sources. However, it could work, done over a closed private corporate intranet, or a password-protected limited access “extranet,” where all participating data sources are known quantities, and have agreed to supply data in an agreed-upon manner.

### **PRICING ISSUES**

Pricing issues are just starting to emerge. This turns out to be a very complex area, with an ever-shifting mix of free and “paid for” data. Some providers (*ie.*, brokers) may offer free data as an inducement to customers to use their other services. Others may provide some data free--an introductory sample, as it were--to encourage purchase of additional or more detailed data. Changes in technology will make even this pricing environment unstable, as it becomes possible to buy and sell data in a “micro-pricing” format, where data is literally “bought by the bit.”

Consultants must remain alert to constant shifts in the pricing environment. Over time, we can expect to see intermediaries stepping in to provide on-line daily information about price and quality of available data, at very fine grain, by property type and geographic area.

## **INTEGRATION ISSUES**

Integration issues pose additional challenges. Does the consultant accept the presentation format offered by a data provider or "custom-craft" his/her own for the job at hand? This answer may differ from project to project, with standard templates being acceptable for simple projects and customized formats used for specialized or more complex assignments.

And what will be the role of the consultant in this new environment? Merely a collector and assembler of data provided by others? Or, an advisor commenting on the meaning of data items and deciding on the appropriate presentation format? The challenge to the consultant is to understand enough about the new data environment and its potential, that he or she can play the advisor role not only on traditional real estate subject matters, but also on Internet data issues and concerns.

## **SECURITY AND CONFIDENTIALITY ISSUES**

Security issues are ever-present in the on-line data environment. How can the consultants ensure confidentiality? Internet data trails can remain for long periods of time. Who else is seeing what you are doing on the net? How much can a data provider be trusted to maintain confidentiality? How secure are internal "firewalls" within a large, multi-division firm? These issues are likely to become more important as real estate investors and analysts place increasing reliance on the Internet.

Software exists to make possible encryption and secure transmission of data. Training consultants to use it is another matter. And, of course, it will always be necessary to "qualify your vendor"-whether on-line or in the "paper" world.

## **LIABILITY ISSUES**

Who is liable, if incorrect data is drawn from on-line sources? There are at least two distinct fact situations, with two different answers. In those cases where there is an agreement to provide data (these will usually but not always be the cases of "paid for data"), the buyer has a duty to qualify the reliability of the provider, and the vendor makes certain warranties about what is being provided. The buyer may have recourse against the vendor, depending on what the agreement says.

On the other hand, getting data free from public sources on the Internet is a different and riskier matter. The consultant is at risk here, and will not be likely to have much recourse against data suppliers,

in most cases. So it is wise to independently confirm the validity of such data, from at least one other non-Internet source. The implication of this is that public Internet data can be good for "first-cut" analyses, to be followed and supplemented by analysis done in more traditional ways.

## **WHO WILL BENEFIT FROM THE NEW TECHNOLOGY?**

We are still in the early days of Internet-assisted research and valuation. It is too early to tell who will be the successful early adopters of these new technologies. The technology does not give an automatic edge to either small or large firms. Rather, the winners will likely be those firms - large or small - that intelligently and flexibly incorporate new technology into their processes. The challenges involve managerial skill and investment strategy, as much as technological know-how. They are challenges for the CEO and CFO, as well as the Chief Information Officer (CIO), of any organization.

The large, well-capitalized firm has the ability and the financial resources to automate most or all of its internal operations, to reuse data for multiple purposes, and to instantly network the latest information from its various branch offices or from related firms, making use of intranets and extranets, the private and semi-private variants of the public Internet. Large firms, however, run the risk that their major investments in self-developed software can quickly become outdated because the technological state-of-the-art may quickly jump ahead of them. On the other hand, data quality issues can be fewer, to the degree that the firm can maintain internal control of its processes.

The smaller firm or even the one-man practitioner may have less capital to spend on hardware and software, but could be in a position to compete with the larger firms by "buying smarter," moving faster, and taking advantage of the many opportunities for networking that the Internet provides. Hardware and software suppliers, such as Gateway and Dell, are making it easier for the small firm to keep up with the pace of technological change. They provide "easy upgrade" plans that let the user smoothly upgrade to the latest versions of a product. It is increasingly possible for the small user to lease rather than buy, fitting the length of investment to the useful life of computer products.

## **INTERMEDIARIES: HUMAN AND OTHERWISE**

Both large firms and small firms are faced with the

challenge of “riding the technology tiger,” as the trends toward “faster, smaller, more powerful, and cheaper” continue and intensify in the worlds of hardware and software. In the world of data, the challenge is one of sorting through an increasing information overload. More data becomes available, in different formats, and with different pricing structures, on an almost daily basis.

To cope with these changes, we are seeing the emergence of a new kind of intermediary. While it was originally thought that the Internet might eliminate intermediaries or middlemen, now we are seeing a new, specialized variety of intermediaries. First, people are filling the role of “trusted advisor” on technological change, data quality, etc. Some are on corporate or professional association payrolls; others operate in free-lance mode, often from their Web sites. But over time, and sometimes quickly, the human intermediaries are being supplemented or replaced by non-human intermediaries (forms of intelligent software that perform the same functions).

For example, some of the same “auction” software that now helps users buy plane tickets or cars based on detailed “specs” could be used to let purchasers of real estate or valuation information put their detailed requirements out for bid, and receive bids from providers over the Internet. This could spark a wave of new competition, as barriers to entry of new providers would be low.

Conversely, it could solidify the position of established real estate information brand names, if they are smart enough to adapt their offerings.

### WHAT DOES THE FUTURE HOLD?

The one thing we can be sure of is volatility. There will be rapid evolution of data offerings and formats, and provider firms. Buyers of real estate research and valuation information - such as banks, investment bankers, and pension funds - will increasingly demand that their advisors and service providers serve them on-line. Big players in the real estate industry will make large investments as they attempt to maintain their established positions in the world of cyber-real estate. At the same time, large new players from other industries will view the real estate research and valuation information provision as a “vertical market” ripe for exploitation.

And finally, there are always the small firms or individuals with the new “niche” ideas, products

or services that can be marketed globally from Web sites. Some could become the Microsoft of tomorrow, while others may be absorbed by the giants of today.

How does all this new technology relate to and affect the traditional face-to-face business style of the real estate and appraisal professions?

Some practitioners will use computer and Internet technology - as they have used the phone and the fax machine - to supplement and speed up their traditional ways of doing business. But over time, the new technology will make it possible to replace, eliminate, or modify the traditional face-to-face business style. In part, this will result from easier to use and more “life-like” technology -- for example, video-conferencing with multi-media document transmission capabilities. And in part, it will be a generation change. Younger professionals who have grown up with e-mail, Internet, and video transmissions, will be as comfortable, (maybe more comfortable), with “doing business virtually.”

The face-to-face business style will not disappear overnight. But steadily, over time, more and more portions of real estate deals and research projects will be conducted on-line.

In summary, the real estate information future can be exciting or frightening, depending on where one stands. But wherever one stands, failing to adapt, and failing to understand the Internet and its implications is a very risky strategy. Though it may be messy, confused, and disjointed along the way—one thing is certain; the real estate profession is heading steadily toward an Internet/on-line future.<sup>REI</sup>

### NOTES

*The authors would like to acknowledge the contributions of Roger J. Grabowski, ASA, a Partner in the Financial Advisory Services Group at PricewaterhouseCoopers LLP.*

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*(continued from page 20)*

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