

December 1998

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Recommended Citation

Crowston, Kevin and Wigand, Rolf, "Use of the Web for Electronic Commerce in Real Estate" (1998). *AMCIS 1998 Proceedings*. 99.
<http://aisel.aisnet.org/amcis1998/99>

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Use of the Web for Electronic Commerce in Real Estate

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Abstract

In this paper, we will explore the ways in which electronic commerce, the World-wide Web (WWW) in particular, is affecting the real estate industry. Real estate is a promising setting for studying electronic commerce because it is an information-intensive and information-driven industry; transaction-based, with high value and asset-specificity; market-intermediary (agents and brokers connect buyers and sellers rather than buying or selling themselves); and experiencing on-going information technology (IT) related changes. In this paper, we apply a coordination theory framework to suggest where IT might change the process of buying or selling a house. Electronic commerce applications have the potential to drastically change current practices in the real-estate industry, including the disintermediation of agents. Web-based commerce is eroding the long-enjoyed information monopoly of real-estate agents. We illustrate this potential by reviewing a number of existing real estate websites that demonstrate the possible impact of electronic commerce on this industry.

Introduction

In this paper, we will explore the ways in which electronic commerce, the World-wide Web in particular, is affecting the real estate industry. Real estate is a promising setting for studying electronic commerce because it is an information-intensive and information-driven industry; transaction-based, with high value and asset-specificity; market-intermediary (agents and brokers connect buyers and sellers rather than buying or selling themselves); and experiencing on-going information technology (IT) related changes.

Real estate is an information-intensive business. Agents connect buyers to sellers through control and dissemination of information (e.g., via the Multiple Listing Service, MLS). Agents are valued for the information skills they bring to making both listings and sales. Since houses are expensive, not easily describable and infrequently bought or sold, most individuals still feel the need for assistance with this transaction from a professional. As well, these are all factors that tend to increase transactions costs (Williamson, 1981). Much of the research on electronic commerce has focused at the other end of the spectrum, on low-cost, easily-describable commodity or branded goods, such as music CDs or computer parts, making this research setting especially interesting.

However, agents and real-estate firms are pure market-intermediaries—connecting buyers and sellers but rarely buying or selling themselves. If the value added by agents is merely as a source of information, their position is vulnerable if buyers and sellers develop new ways to find one another. For example, buyers and sellers can now use the Internet to by-pass traditional real-estate agents (e.g. Fletcher, 1997). Hundreds of individual websites exist to hawk homes, newspaper advertisements appear on-line and for-sale-by-owner (FSBO) listing registries have emerged. While brokers still control four out of five real estate transactions, the level of FSBO sales has increased in recent years (Fletcher, 1997).

The potential disruption of the Web has been recognized by agents (Harper, 1997; Self, 1997; Bottenberg, n.d.). To maintain their position, agents are stressing individual service but also creating other value-adding mechanisms, such as buyer-broker relationships, connections to other house-buying services, buy/sell deals, and guarantees. New forms of brokerage are evolving and rapidly changing the structure of the real-estate industry (e.g., “The new world...”, 1997).

Moreover, a trend seems to be to unbundle services typically offered by real-estate agents. For example, for a discount in the commissions, some agencies have their customers deliver certain services themselves, including, e.g., using their home computers to advertise their homes on the Internet, using desktop publishing software to make fliers as handouts, organizing their own open houses, and various advertising efforts. This shift in service delivery from the agent to the home owner will result savings to the home owner in the form of discounts on commission payments to the real-estate company. One such firm offers home owners who sell their house within 45 days a discount of 32.5 percent discount off the realty's commission. Sellers may, e.g., use their home computer to list and advertise their houses on the Internet or search there for prospective clients (Peters, 1997). Such developments challenge us as researchers to better understand how electronic commerce might affect this industry.

Steps in a Real Estate Transaction Process

Before we consider how the Web is and might be used, we will give a brief overview of how the real estate industry operates in the United States, focusing on residential transactions (although the Web is being used for commercial real estate as well, e.g.,

Kirkpatrick, 1997). The real estate transaction process can be divided into five distinct stages, which we call listing, searching, evaluation, negotiation and execution. This general outline probably applies in other countries as well, although the details will differ.

Of course, there are many possible variations in the process described above depending on the particulars of the market. For example, in a very tight market, buying might involve searching for information about houses about to be offered so as to get a bid in more quickly, while in a weak market, pricing and positioning might be revisited after some time on the market.

Theoretical Bases

To analyze the possible effects of electronic commerce in this industry, we apply the framework of coordination theory (Malone and Crowston, 1994). According to coordination theory, actors performing a process face *coordination problems* arising from dependencies that constrain how tasks can be performed. Coordination problems are managed by activities that implement *coordination mechanisms*.

The way IT can be used to disintermediate the traditional agent and broker is of focal interest here, as it potentially threatens the traditional relationship between agent and home owner. Disintermediation is the elimination or displacement of market intermediaries, enabling direct trade with buyers and consumers without agents (Wigand, et al., 1997, p. 4). Traditionally linkages between buyer and sellers have been managed by a host of intermediaries—agents, wholesalers, retailers, distributors, warehousing operations, forwarders and “jobbers”—who reduce the number of customer or suppliers with which a principal deals, thus avoiding information overload for the principal. Today, examples abound in which these mediating roles have been replaced or eliminated because information technology permits the principals to manage the relationship directly (e.g., Benjamin and Wigand, 1995; Wigand, 1997; Wigand, et al., 1997). For example, Benjamin and Wigand (1995) and Wigand et al. (1997) show how entire levels within a market hierarchy (e.g., wholesaler, retailer) might be replaced by direct communications between a manufacturer and customer. More generally, they suggest that an evolution from single-source channels to electronic markets is already underway. Similarly, it is possible today to link seller and buyer of a house directly without intermediaries, as we will discuss in the following section.

Exemplary Uses of the Web to Support Real Estate

The growth of commerce on the Internet has attracted special interest. Since the Internet is a public network, and increasingly ubiquitous, it neatly addresses the problem of connectivity between potential trading partners (Neches, et al., n.d.), extending even to the general consumer. Of particular interest for this research are the numerous websites being developed to support various aspects of the real estate sales process. WWW sites that support the different stages (listings, searching, evaluation, negotiation, closing) in a transaction have been identified by the authors.

Conclusions

As the IT cost performance continues to improve, the unit cost of coordinating transactions continues to decline, approaching, relatively speaking, zero. These developments suggest that we can conceive of processes based on an essentially infinite number of coordinating transactions. The metaphor of *zero-cost transaction* serves as an analytic device for looking at the future of work, as well as firms and their processes much like the sought-after *frictionless* body by physicists in the Middle Ages and providing Galileo an analytic device for looking at the world of mechanics.

Real estate is an information business. Consequently, it is deeply impacted by information technology and resulting change, including the assembly, analysis and transfer of information. This escalating change appears to alter the structure of the real estate market when (a) studying the firms that serve it, as well as (b) the consumers it serves. The information revolution that is inescapably penetrating all facets of industry is propelling the real estate industry as well into territories unknown. The structure of the industry has evolved toward small, clearly identified, specialized firms and large market-share brokerages. The middle-sized firm has been shrinking and appears to continue doing so.

The technology enabling the understanding and conveying of information expands in speed, efficiency and boundary-spanning daily. This, in turn, may throw entire industries into turmoil, some become redundant while completely new ones emerge. Markets tend to reward those individuals and firms familiar with the new information technology; they penalize others. New approaches to work, knowledge, information, IT and organization structure are essential prerequisites to survive in this new environment. Current advances in computer technology, near friction-less, low-cost transmission of transactions easily crossing continents in seconds, as well as the growth of the WWW, have placed pressures on the real estate industry as never before and challenge traditional assumptions about real estate transactions. Due to the pervasiveness of the Internet, we anticipate an eroding power position of real estate professionals, as they adapt to the loss of exclusive access to the MLS. Future research may permit us to demonstrate how the influence, monopoly position and role of the real estate professional in the transaction process changes.

One might question if the value-added reduction by this professional results in a mere source of information while giving more and more control over the transaction to the consumer. These developments challenge the real estate establishment and may force real-estate agents to look for other ways to add value to the consumer. Information technology may, in turn, provide a means (e.g., data visualization, broad-band telecommunications, interactive communications, dispersion of jobs and work,

relationship marketing, use of intelligent agents) to make this possible. Will it be possible to utilize information technologies to serve again as the one-stop shop and in a central role for all real estate transactions? Will real-estate agents be able to capture the consumer first in the provision of the large number of central and related real estate services as a settlement services provider? With these unknowns and more change looming, unquestionably the real-estate agent and brokerage of the future must become flexible, responsive and information technology-savvy.

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