

Real Estate



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Technology

A White Paper on the 9 Keys to

E-business in the New Millennium

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While every effort has been made to provide accurate and current information, the ideas, suggestions, general principles and conclusions presented in this document, are by no means intended to be used as a substitute for competent business or legal advice. As the white paper is intended to assist the real estate industry and its participants at large, any part thereof may be reproduced by citing the report title and author. Complimentary copies

Introduction

Welcome to the next century!

It is hard to believe that at the start of this century, time wasn't even standardized.

Steam and coal gave way to oil; then oil to nuclear power. We've gone from bicycles to automobiles, from planes to space stations. We've invented mainframes, microprocessors, microchips, transistors, optical fiber and the World Wide Web. The 20th Century has truly experienced unparalleled and unexpected technological advances.

This power unleashed has created a permanence of change. Changes that echo the characteristics of a new era, one that seeks to move fast, inform, and above all, reduce costs.

Until recently, the real estate industry was trapped in a time capsule. In 1997, profound changes began to occur, as detailed in the book *Real Estate confronts Reality*. The effects visible today will continue to introduce the industry to concepts such as consolidation, commoditization, disintermediation, vertical integration, e-business and new Internet empowered consumers.

This will irrevocably and fundamentally change the building blocks of the largest industry in the United States. At the very core of this change is the incredible driving force of the Internet. A power that is believed to be as potentially profound as the invention of the printing press or the television.

This white paper highlights nine key drivers in this change, and hopes to sensitize you to the impact these forces will have on the real estate industry. More information will be available in the new book, *Real Estate confronts the New Millennium*, due for publication in spring 2000.

Hopefully, the information will help prepare you for the 21st Century.

Trend #1

A Whole New Online Economy

The Internet is big, really big — maybe even the biggest business opportunity of the 21st Century.

There is no question that the world is rapidly becoming one large global market due to the Internet's power to connect different people, various cultures and communities into one worldwide, easily accessible electronic system.

The Internet has already significantly changed the way we live and work, what we read, even how we communicate. Only a decade ago, the Internet was simply a resource for academia and governments, yet today, the Internet is a dynamic, interactive medium, accessible by anyone with a computer and modem. According to a report by Intelliquest, there were 79.4 million Americans (32 percent) online by the end of 1998. This number continues to explode as *The Computer Industry Almanac* reports an estimated 327 million people online around the world by the year 2000, probably growing to about 1 billion (17 percent) by 2003.

Not only is the Internet big, it is also changing peoples' lives according to a Fast Company-Roper Starch worldwide survey which reports that:

- 94 percent believe that the Internet makes communication easier;
- 96 percent report the Internet increases the accessibility of information; and
- 82 percent say the Internet empowers the consumer.

It is further expected that within the next five years, the Internet will become more pervasive, more powerful and very deeply ingrained into the very fabric of our society. It is already commonplace to see a "dot-com" address advertised in the traditional media, many times even in lieu of a telephone number. It is estimated that by 2005, 50 percent of all traditional commodities will be purchased online and 25 percent of services will be conducted via the Internet.

The Internet is clearly changing the face of business, and that will include the real estate industry. According to the May 1999 California Association of REALTORS® (CAR) study, homebuyers using the Internet shortened the decision time from consideration to closing to under three months. The traditional homebuyer averages five months for the same process. Seventy-one percent of the Internet-savvy homebuyers surveyed agreed the Internet

gave them a better understanding of the process; 76 percent said they felt it put them in better control of the process; and 56 percent indicated the Internet helped them locate the best neighborhood. Big difference.

While real estate professionals traditionally have been the gatekeepers of information, the Internet is demanding they change to only interpreters of the information. Should real estate professionals wish to succeed in the new world of the Internet, they will have to focus on creating a consumer-centric model that allows them to take ownership of the entire transaction. By becoming the gatekeepers of the transaction, they can act as the coordinator, counselor and facilitator in streamlining the total home experience. Real estate is truly unique as the transaction requires many vendors to touch the customer even before there is a transaction, so adding real value comes from offering the consumer a seamless, one-stop-realty-shopping experience.

Trend #2

Global Communication & Universal Networks

The Internet effect is not an evolution, but a revolution.

The idea of the Internet took hold in the 1960s when computer expert J. C. R. Licklider of the U.S. Defense Department's Advanced Research Projects Agency talked about "an experimental network of multi-access computers" that would create "communities of common interest." Within a decade, the world had been wired with fiber-optic cable — enough to go to the moon and back 350 times. The world was ready for the access and power offered by the Internet.

Since then, the Internet has evolved into a dynamic, content-rich, interactive and exciting environment. With approximately 8 billion e-mail messages being sent daily, there is no question that the need for inexpensive, easy and quick communication became the "killer app" that fueled the explosion of this global network. The next stage will soon see data, voice, video and e-commerce transactions flow simultaneously and seamlessly from virtual companies through cyberspace to clients, anywhere in the world.

Back in the early stages of the Internet in 1996, 34 U.S. universities announced plans to develop an even faster, more powerful computer network than what we know today. Soon, more than 150 U.S. universities and 20 corporate partners are hoping to make "Internet 2™" a global reality. "Internet 2™" will introduce a universal network with online technologies and capabilities faster than anything we have experienced. It is designed to benefit all sectors by enabling a new generation of Internet applications such as telemedicine, digital-search-libraries and virtual-communication — applications not possible on today's Internet structure.

These speedy systems are not only expected to boost the usage of traditional e-commerce, making online transactions available everywhere to anyone, but will allow consumers to conduct online business at speeds many times faster through the development of GigaPOPs.

As real estate agents, we need to heighten our awareness of these fast-growing changes. Most likely, home-buying consumers will quickly adopt the new features offered and demand that real estate transactions become as dynamic and seamless as other e-commerce transactions. Instead of merely viewing online photographs of homes, shoppers will request virtual property tours in realtime videos, complete with commentaries; they will seek comprehensive community data accessible through interactive conferencing, including interviews; and will view maps from satellite-generated systems that will pinpoint the property and its features.

Trend #3

E-business & One-stop Shopping

The problem isn't losing your customers to e-business: it's losing them to someone else's e-business.

Surveys indicate that shopping online has become as gratifying for some users as a trip to the mall is for others. The Internet has already redefined the way we shop for books, CDs, banking services and airline tickets. It has revolutionized the way companies compete, it has streamlined the way services are offered, and it is attracting new clients in very innovative ways. A good example is Amazon.com, which has made a book purchase a one-click process and home delivery typically two days.

How big is e-business? It's estimated to surpass \$12 billion this year and grow to over \$300 billion by 2002. NFO Interactive predicts that shoppers are taking to the Internet because of promises of privacy, discounts, realtime customer support, and the ability to return a product to a brick-and-mortar facility. Their study shows that three million new shoppers will make their first online purchase by the 1999 holiday season, pushing the number of actual online shopping households to over 27 million. Already 46 percent of all Internet users in America are women; at the current growth levels, women will lead men in Internet access 60 percent to 40 percent by 2002.

Companies surveyed by Jupiter Communication research showed a 52 percent increase in average revenue and a 47 percent growth in their customer base after just 12 months of conducting business online. Successful companies have learned that Internet transactions provide a spectrum of benefits such as enhanced customer service and more cost efficient sales and distribution efforts.

Price Waterhouse estimates that the cost of electronically producing, processing and invoicing is 10 times cheaper than traditional methods, and the cost of responding to a customer service request using the Internet is five times cheaper than a call center transaction. According to PC Computing magazine article, the cost per sale of an order processed over the phone is between \$8 and \$25. The same order processed online only costs between 3¢ and \$1.

With an estimated 10 million real estate Web sites, it would seem that this is one of the most dynamic and prolific industries on the Internet. However, few Web sites really offer any true value, and online real estate

transactions are far from becoming a reality. The main reason is because the home-buying process is complex, infrequently conducted, heavily regulated, saturated with too many different participants and arguably the single largest transaction the average household will ever make. Introducing e-real-estate-commerce and one-stop-realty-shopping is not going to be easy.

However — be warned — consumers will soon be asking for:

- All transaction-related services at one location.
- A totally managed transaction, including all value-added services.
- All property, community and related information in realtime updates.
- A faster and more pleasant experience.
- Less fees and some real cost savings.

If you don't offer your customers these features in the very foreseeable future, new entrants will continue to emerge and capitalize on the opportunities you and the new business model have given them.

Trend #4

Electronic Immigrants

Thanks to the Internet, the confines of time and space are disappearing. Gone are most previous boundaries, creating a new "virtual nation" where the stores have no doors, and malls no walls.

Since the dawn of the 20th Century, we've witnessed the retirement of many processes as progress has introduced more efficient methods. Think for a moment of the pony express, the Ford Motor Company's Model-T, and the pressed-vinyl record.

It would seem that also destined for extinction are the days when all employees need to be under one roof or on a "9-to-5" schedule. We have

a new online economy developing — one that never sleeps, conducting e-business over the Internet 24 hours a day, 365 days a year. The power is no longer building- or location-dependent, it now resides in a tiny computer chip sending and receiving data over the Internet.

As with physical facilities, geographic location and time zones are also no longer an obstacle with the advent of voice- and e-mail.

With the onset of nearly instant global communication through the Internet, virtual commuting has become a viable proposition. People can conduct business from anywhere and at any time. For example, people remotely located in China or India could cost effectively provide valuable services to an American-based company. Should this start to happen in the millions, it will change the entire infrastructure and lifestyles of entire populations, both domestically and abroad.

In June of 1999, StatMarket reported that the percentage of Web traffic from foreign domains reached 44 percent, nearly matching the combined traffic from commercial (.com), network organizations (.net), educational (.edu), organizations (.org), military (.mil) and government (.gov) domains. Add to that the details from a report by Computer Economics that estimates that by the year 2002, Internet users will predominately be non-English and it's easy to realize the impact "electronic immigrants" will begin to have.

This phenomenon has a plethora of impact points for the real estate industry such as a decline in the need to relocate, or an increase in the desire to relocate from major metropolitans to smaller towns, or the decline of providing a desk for every real estate agent in the office.

Although a different type of "electronic immigrant," there is huge potential for a new kind of "electronic agent." An agent that only comes to the office on certain select times to interact with other sales associates or to conclude a specific transaction with a customer.

Trend #5

Web-izing Commodities & Services

The Internet is the ultimate convenience store, offering choice, cost effectiveness and customization.

As the popularity of the Internet continues to increase, more and more products and services are becoming Web-ized. We've already witnessed book and music distribution, automotive retailing, travel and lodging, stock brokerage, mortgage services, publishing, financial services, insurance, electronic components, toys, healthcare, floral delivery, education and auctions being disintermediated.

Expectations, however, that all products and services will be equally as easy to commoditize, is unfounded. There is a distinct difference between certain services, so much so that one can divide them into four categories.

The first category is "Standard Commodities." These are the types of products that are similar and standard, regardless of the time or place of the purchase. Since they are usually mass-produced, multiple consumers can purchase and own the identical item at the same time. Acquisition of the commodity is a very simple and nominal transaction. The product usually has a uniform standard pricing structure, thus making the transaction very one-dimensional. Products are easily packaged and shipped anywhere in the world. Examples include books, CDs, curios, furniture and clothing.

Second is the category "Choice Commodities." Products in this category usually involve a non-physical transaction such as the offering of a service. These services, although reproducible, might have small differences. The commodity can usually be reproduced and be available to many people, but the time of purchase or use is frequently singular. The pricing structure is usually varied, determined by selection as well as timing and sometimes buyer criteria. The transaction is a little more complex and time sensitive and could therefore be referred to as two-dimensional. A good example would be airline tickets. Many seats are available on any given flight, but there is a difference between first class and coach, between aisle and window, etc. Although the exact same seat becomes available either in a few hours or on the following day, and although a similar experience is offered, it could vary in price due to external factors (e.g., delays, weather, etc.).

The third category refers to "Intangible Commodities." These are still products that can be listed and catalogued but they are no longer pure com-

modities. They are usually personalized to accommodate the needs and/or criteria of the consumer. The customer's profile (creditworthiness, financial history), as well as other external factors now are of equal, if not more, importance compared to that of the product. We could say that the external factors add a third dimension into the equation. Mortgage loans clearly illustrate this category.

The fourth category contains products and services referred to as "Unique Commodities." These commodities can usually not be shipped by an overnight delivery service and are extremely difficult to Web-ize. The products and services are not standard at all, not really repeatable and cannot be owned by different people at the same time. Similar to "intangible commodities," high emphasis is placed on external factors, such as the buyer's personal choice and/or circumstances. The uniqueness of the product also introduces a new fourth dimension into the equation.

Purchasing a home is an excellent example of this category. Each house is generally a one-of-a-kind item, it cannot be shipped, nor can more than one buyer purchase it simultaneously. This purchase is significantly influenced by the buyer's details, is subject to numerous outside factors, is time sensitive and above all, entangled in a plethora of forms.

E-business has enjoyed tremendous growth with the "Standard Commodities" as demonstrated by the success of Amazon.com and eToys.com. They have quickly shown how easily their products were Web-ized. Following closely behind are companies such eBay.com, Expedia.com and Priceline.com, which captured everyone's imagination and introduced users to a large selection of "Choice Commodities."

Growth has not been that strong with the third category of "Intangible Commodities" and companies such as E-LOAN have discovered that external forces, such as the housing market and interest rate cycles, could greatly impact their success.

Although the experience of traditional companies make it easier for them to better compete against novice e-business entrants in the "Intangible Commodity" category (rather than those in the first two categories), one should not ignore their potential long-term success.

Category four, that of "Unique Commodities," is more difficult. To date, no company has implemented a successful strategy to address the complexities of this category. High-profile Homestore.com immediately comes to mind, but it does not form part of this category, as it does not actually execute the home-buying transaction. Homestore.com is more accurately defined as a type of portal, a national MLS or an online real estate advertiser. It therefore falls within the first category of "Standard Commodities," hence its rapid growth and success.

However, don't assume that the real estate industry, or the home-buying

process, cannot be Web-ized. Rather, understand that due to the complexities, the industry needs to be broken into different functionalities. An effective e-business solution in real estate will need to harness both the power of the Internet as well as the experience of an existing back-office operation.

Real estate professionals will have to transform themselves into online transactional experts, offering high-touch data-driven consultative advice, while still resolving the personal and emotional complexities involved in buying a home.

Who said one-stop-realty-shopping was going to be easy?

Trend #6 Artificial Intelligence Arrives

The Internet is the best way to provide your customers with information about your company, comprehensively, inexpensively and continuously.

When academic and federal entities began using the Internet, it was simply a repository for some data. Today, it not only has one billion pages of information, it is evolving and getting smarter every day.

It started when search engines, such as Yahoo and Lycos, made it easy to find anything on the Web. Today, the search engines are struggling to keep up with the growth and are searching only about one of every six pages. If they were all combined, the top 11 search engines today could cover only about 42 percent of the Internet according to the NEC Research Institute, down from the 1997 research finding which showed that the top six search engines

(combined) covered 60 percent. Forrester Research predicts that the figure will decline to 20 percent by 2002.

The globe may have become one mass market, but the consumer is showing that personalized service is still needed. Therefore, e-business is seeking new ways to show that the world is infinitely divisible into small, customized niche markets.

By automatically tracking individuals' online preferences, buying habits, real-time behaviors, and past purchases, companies such as Net Perceptions and Andromedia are creating methods for Internet companies to personalize their Web sites. For example, the Levi Strauss & Co. online catalog will soon make product suggestions to individual visitors based on their personal needs, styles, sizes and desires.

Another recent development is the "virtual agent." Residing in an individual's computer, the program can, on command, browse the Internet, search multiple sites, interpret data, retrieve information, catalog it and present it back to the user.

One of the bastions enjoyed by the real estate industry has been the stronghold the MLS service has provided. However, since 1994, the number of MLS providers has declined from 1,400 to 650 and that number continues to drop as technology enables larger, faster and more comprehensive means of listing homes. Furthermore, some 80 percent of all residential listings are to be found on the Internet, leading speculation to the possibility of a nationwide, realtime, virtual MLS.

It is clear that real estate information has been set free. Whether or not we end up with virtual agents or a Web-based national MLS, homebuyers will soon be able to view all homes for sale, access all meaningful property and regional data, plot the data on maps, access utility reports, inspect existing warranties, and electronically create their own home appraisals.

Trend #7

Human-like Computers & Virtual Reality

In the not too distant future, data, voice, video and artificial intelligence will start to integrate, and the virtual world will start to blend with reality.

Microchips, those tiny rectangles of silicon and integrated circuits, are without a doubt, the most revolutionary and remarkable invention of the 20th Century.

Some 15 billion microchips have already been manufactured and millions can be found in many everyday appliances such as televisions, telephones, clocks, microwaves and cars. They can control a jumbo aircraft or turn on streetlights. They have fueled incredible advances and saved society from numerical suffocation by organizing and analyzing data.

We're only a year away from 2001, but the fictional technology in Stanley Kubrick's 1968 film "2001: A Space Odyssey" no longer seems that far of a reach. Remember the computer named "Hal?" It was portrayed as being a human-like companion for its operator, Dave. Hal was able to think and reason, and responded to Dave's voice with a human-like voice of its own.

Today, various human-like responses are available in computers, evidenced by such general products as Microsoft's Office Assistant — the animated PaperClip — which supplies information to written or pre-formatted queries about the software developer's products from inside its programs. Other examples are the Internet-based Askjeeves.com, which interprets users' requests by giving pre-determined answers to questions, and Coldwell Banker's "personal retriever" that seeks to provide results to interpreted needs.

This growing need for "real-world-type-language" technology has spawned the development of speech recognition programs, such as dictation software and voice-activated Web browsing programs. Many other features are being added and will soon be available in various speech recognition software packages.

When world chess champion Garry Kasparov lost his rematch with IBM's Deep Blue in 1997, the world re-evaluated former opinions of artificial intelligence. Deep Blue's win probably did not signal that computers are actually intelligent but rather that they have become experts at matching patterns and solutions guided largely by predetermined guidelines. However, similar to

humans, they now are able to make choices in certain circumstances.

Web-savvy real estate professionals will monitor the progress of the homebuyer's ability to do online transactions. Maybe they will ask their computer for a status report in the same manner they might ask a human assistant. They will then direct the process by instructing the computer on the various next steps, which may mean simultaneously contacting a lender, automatically calculating a market appraisal, ordering a title report, and so on.

This does not imply that real estate agents will no longer interact with people. If anything, it will make more efficient use of an agent's time, making more time available for what he or she does best: interpret and negotiate, as well as spend time with the people who matter most — the new Internet empowered consumer.

Trend #8 Digital Identities

There are no rules in cyberspace; there are no secrets in cyberspace.

In the past, communities were a function of geography, centered around towns, jobs, churches and schools. Not any more. Today, "virtual worlds" are coming together in the form of online communities, uniting people from around the world with similar interests.

Digital identities of everyone exist in cyberspace as the Internet links together vast repositories of data. Although it easily can be argued that technology has added a tremendous quality improvement to our lives, it also means that individual privacy is no longer a reality. From the federal government to local hospitals, from the department of motor vehicles to the

credit bureau, an individual's vital information is today easily and quickly accessible through the Internet.

The latest addition to the world of information technology is the "smart card," a plastic card the size of a credit card with an embedded microchip that securely contains the carrier's personal data. Scanning the card's microchip instantaneously provides comprehensive information — information needed for almost everything, from simply confirming a person's identity, to determining medications, to executing detailed financial transactions. The same micro-circuitry is also easily adapted for use in everyday items ranging from key rings to jewelry. Similar technology is currently applied in some military dog tags and in the archiving of patients' medical records at various hospitals.

Another example of digital identities is the use of technology to electronically interpret and verify people by using biometrics; a person's fingerprint impression, eye or voice patterns. Bank United in Houston, Texas, is the first U.S. bank to use such iris-recognition technology for its ATMs. The technology has been proven to be more accurate than fingerprints and DNA — reportedly, not even identical twins have the same iris patterns. A desktop version of the technology is expected to be available to secure Internet transactions by the end of 2000.

According to a survey done by NPD Online Research, half of all Internet users will have their own personal Web site by Spring 2000 — another factor in building digital identities.

Satellites, another key contributor to the growth of wireless and Internet communications, also have the capability to view almost anything on the earth's surface. EarthWatch, one of the satellite companies, has the ability to create photos from space of a 3-meter resolution of nearly any place on Earth. The Longmont, Colorado-based company plans soon to improve its view by boosting the technology to 1 meter, which will be powerful enough to view and identify people.

Forget the listing race to get to a million listings. Think of a new world, with instant access to 100 million homes in the U.S. This will introduce a whole new meaning to the word "complete" home resources. Real estate agents may soon be able to obtain a homebuyer's financial data directly from a smart card, up-link it via satellite to an institution, wirelessly transmit digital signatures of a client to the office, while regularly updating the customer on the progress of the transaction via Internet video conferencing.

Trend #9

A New Wireless World

In the world of technological leaps, wireless Internet access will be the next obvious accomplishment.

Since the first portable cellular phones were introduced in the early 1980s, the technology has blasted its way into everyday life with a vengeance. Usage has risen in the U.S. from 200,000 users in 1985 to more than 80 million in 1999.

Cellular companies are gradually migrating their current analog systems to digital technology, which will further improve the capacity and features of portable devices. The Federal Communications Commission estimates that digital service is already viable in areas serving 71 percent of the nation's population.

The popularity of portable communication devices is predicted to continue as wireless service increasingly displaces traditional telephone lines. By 2002, wireless service for the Internet will be creating millions of new uses and opportunities. The cellular phone may soon emerge as the ideal Internet access tool and could even displace computers as the Web-connection device of choice by 2005.

While the Internet is making commerce possible anytime, digital wireless technology will make it accessible anywhere. Furthermore, access will no longer be limited to specific personal devices. Jupiter Communication predicts that by 2007, about seven million automobiles will feature information systems that can access the Internet. Drivers trapped in stalled traffic will check on stock activity, shop for a gift or catch up on e-mail.

Unfortunately this new evolution will probably not be led by the U.S. As has been the case with banking, real estate, MLS and other industries, the U.S. is frequently fractured by different standards, regional regulations and licensing laws. Europe has already taken a significant lead in this new wireless technology age, with Finland's Nokia becoming the world's leading cellular phone brand with a 25 percent global share. Great Britain's Vodafone, already operating on all the major continents, is also fast on its way to becoming the first truly global mobile-phone operator. Vodafone has adopted a common standard for all cellular communication known as GSM. That standard has spread from Europe to more than 120 countries, from China to South Africa.

Domestic companies such as Motorola are poised to use mobile technol-

ogy to bring to market powerful pagers that allow the user to create, send, receive and reply to e-mail from any location. PalmPilot is focusing on the creation of portable devices ranging in size from a hand-held television to a wristwatch enabling the integration of voice, video and the Internet.

With wireless real estate you may thus be able, in the not too distant future, to link to the Internet with your cellular phone, communicate via e-mail with your customers, screen a video of the latest house on the MLS, or fax a contract to the office.

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Stefan first appeared on the U.S. real estate radar screen in 1996 when he was ranked by *Today's REALTORS®*, the official publication of the National Association of REALTORS® as one of the 20 Movers and Shakers in the nation. In the same year, he also was awarded for the *Best Idea in Real Estate* at the Great Ideas Conference.

He has served as Senior Vice President of ERA and Cendant; co-authored *Real Estate confronts Reality*, the 1998 #1 best-selling real estate publication, with Tom Dooley and Michael Abelson; and today is co-owner and CEO of Associates Group, one of the nation's largest financial and real estate groups. Associates Group operates 10 residential and commercial real estate offices under the Coldwell Banker banner (with annual sales of more than \$1 billion), three mortgage offices (with annual sales of more than \$400 million), as well as three escrow and insurance offices. Stefan also serves on various boards including companies such as REBAC, RealCafe and iProperty.com.

Stefan has broad international business experience, having lived and worked on three continents. His studies include a bachelor's of science, a master's degree in business economics, and diplomas in arbitration, computer science and marketing. Together with his wife and two sons, the family has made Southern California their home.

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