Cutting out the middleman: The disintermediating potential of the Web in real estate in the US and New Zealand

Kevin Crowston

Syracuse University
School of Information Studies
4–206 Centre for Science and Technology
Syracuse, NY 13244–4100

+1 (315) 443–1676
FAX: +1 (315) 443–5806
crowston@syr.edu

Under review at the *Auckland Business Review*

4629 words

Draft of 20 September, 2000

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The Internet, and the World-Wide Web in particular, is reshaping commerce. Since the Internet is a public and increasingly ubiquitous network, it neatly addresses the problem of connectivity between potential trading partners (Neches, Neches, Postel, Tenenbaum, & Frank, n.d.), extending even to the general consumer. Rightly worried are the middlemen of the world, the transactional intermediaries, those whose traditional role has been to bring buyer and seller together, but who neither buy nor sell themselves. As the Web enables buyer and seller to find each other directly, these intermediaries fear being made obsolete.

In this article, we explore the ways in which the Web is reshaping the real estate industry. Real estate is a promising setting for studying the effects of the Web for several reasons. First, real estate is an information-intensive business. Agents connect buyers to sellers through control and dissemination of information (such as the Multiple Listing Service, MLS, described below). Agents are valued for the information skills they bring to making both listings and sales. Second, 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. Traditionally, linkages between buyer and sellers have been managed by a host of intermediaries—agents, wholesalers, retailers, distributors, warehousing operations, forwarders and “jobbers”. These intermediaries reduce the number of customer or suppliers with whom a principal must deal, 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 & Wigand, 1995; Wigand, 1997; Wigand, Picot, & Reichwald, 1997).

Similarly, it is possible today to link the seller and buyer of a house directly. For example, buyers and sellers can now use the Internet to list and search for houses, bypassing traditional real-estate agents. If the value added by agents is merely as a source of information about listings, their position is vulnerable. While brokers still control four out of five real estate transactions (in NZ, the percentage is 86%), the number of homes sold directly by their owners (“for-sale-by owner” or FSBO sales) has increased in recent years (Fletcher, 1997b).

Agents have begun to realize the potential disruption of the Web (Bottenberg, n.d.; Harper, 1997; Self, 1997). Over 3,600 individual Websites exist in the US to hawk homes, newspaper advertisements appear on-line and FSBO listing registries have emerged (National Association of Realtors, 1998). Some agents are adopting these new communications channels for their own use. For example, Lloyd Anderson, a Harcourts rural sales consultant based in Gore, New Zealand, listed more than 70 of his properties on the Internet ("Internet Success", 1999). Anderson is cited in August, 1999 as having received more than 670 inquiries from around the world on one property in two months, with the Internet leading directly to a sale in excess of NZ$3 million. Other agents are stressing individual service and creating other valueadding mechanisms, such as buyer-broker relationships, connections to other house-buying services, buy/sell deals, and guarantees.

So what's really going on? Are agents benefiting or being driven away? Understanding the changes driven by the Web is difficult because the real estate industry is large and diverse. For every success story there is a failure. It is impossible to say what will happen to real estate as a whole. Instead, to understand the potential effects of the Web, we must develop a richer understanding of what actually happens in the industry and from this understanding, begin to untangle the various effects. In this paper, we will give a brief overview of how the real estate industry operates in the United States and in New Zealand, focusing on residential transactions (although the Web is being used for commercial real estate as well, e.g., Kirkpatrick, 1997). We give examples of how the Web is being and might be used at various stages in the process and the potential effects of these uses. The result is a richer picture of the industry that illustrates how the Web can simultaneously give and take away.

The real estate transaction process

For the purposes of this paper, we divide a real estate transaction into five distinct stages, which we call listing, searching, evaluation, negotiation and execution. In the following sections, each stage will be described briefly, contrasting the situation in the US and NZ and showing the potential impact of the Web. This general outline probably applies in other countries as well, although the details will differ.

Stage 1: Seller lists house

In the first stage, potential sellers put their houses on the market. The seller has to determine how to position the property (e.g., which features to emphasize or which repairs should be made) and how to price it. As well, some paperwork may be necessary (e.g., disclosing known defects in the property). Houses are then advertised for sale (e.g., in the newspaper or with a sign on the lawn). Figure 1 and Figure 2 show the overall flow of information from buyer to seller in a US and NZ real-estate transaction. This stage in the process is shown schematically on the left side of these figures.

Insert Figure 1 and
Figure 2 about here

A seller might agree at this point to list the property with a real-estate agent, called the selling agent, and shown in brown in the figures. The agent advises the seller on the various decisions and markets the house. In return, the agent collects a commission when the house is sold. In the US, residential properties are listed with only one agent (sole agency), while in NZ a house might be listed with several (general agency). Once the house is listed, the agent starts to market it, e.g., by placing advertisements, holding open houses or putting a picture in the shop window (as shown in Figure 2). Marketing reveals several differences between US and NZ practice. First, in NZ, it is not uncommon for the seller to be billed for the advertising, while in the US agencies typically pay for advertising out of their (higher) commissions. Second, agents in NZ often have many more open houses than would be common in the US—several a week vs. one per listing.

An essential difference between New Zealand and US practice is the use of a multiple listing service (an MLS, also called a multiple listing bureau, or MLB). An MLS is a database of the houses listed with member real-estate agencies that can be searched by members. In addition to the technology, the MLS provides a framework for cooperation between agents. In the US, nearly every area has an MLS to which essentially all agencies belong (a significant exception is New York City) and agencies typically include all of their listings in the MLS. In NZ, MLBs existed in Auckland and Christchurch, though these recently closed because their functions were superceded by the Web. Even then, only a fraction of agents in these two cities belonged, and even those who did belong might not have listed all their properties.

The use of the MLS in the US historically gave agents a considerable information advantage. On the buyers' side, the MLS makes it much easier for an agent to identify desirable properties, thus encouraging buyers to work with agents. (Since the agent is paid by the seller, as discussed below, there is no direct cost to the buyer for working with an agent.) On the seller's side, houses that are not listed with an agent are kept out of the MLS, which dramatically reduces the number and quality of prospective buyers (since most buyers work with an agent).

In New Zealand, without the MLS, agencies seem instead to focus their efforts on advertising directly to potential buyers. Agencies have large shop windows with displays of houses for sale. Most buy large amounts of advertising and the largest produce their own advertising magazines. For sale signs are large and provide a large amount of information about the property offered. In this context, the Web is viewed primarily as an additional form of advertising.

Use of the Web

Many sites in the US accept advertisements for houses for sale. For example, Homehunter (www.homehunter.com) links to real estate classified advertisements in 31 daily

Knight-Ridder newspapers. Abele’s Owner’s Network (www.owners.com) lists about 35,000 houses for sale by owner, but expects to list about 200,000 properties this year. Alternative sites seem to have been unsuccessful so far in NZ. Many of these services are directed at consumers trying to make an end-run around the MLS cartel. Rather than paying a commission, sellers pay only for advertising. To be successful, such a site must attract a substantial volume of visitors, which in turn requires a critical mass of listings to make visiting worthwhile.

Stage 2: Searching.

In the next stage, potential buyers review houses to find those that might be suitable (in location, size, price, features, etc.). Information on available houses comes from many sources. To locate houses offered, buyers look in newspaper advertisements or for signs in the area they are considering. Alternately, a buyer might work with an agent, who can help buyers decide what features are important or in which neighbourhoods to look.

Since agents are paid by commission, agents will usually show only houses for which there is a listing contract that ensures they will be paid. In the US, the MLS listing agreement states that the agent who introduces the buyer will receive half of the commission paid by the seller. Therefore, agents in the US can provide information on any house in the MLS database, regardless of which agency listed it. A buyer can work with a single agent and still see all houses listed in the area (excepting, of course, houses offered directly the owner, which are not included in the MLS). As well, since the buyer does not pay directly for the services of the agent, there is little reason not to use one. As a result, most transactions involve two agents, as shown in Figure 1. Because most buyers are working with agents, marketing efforts can be directed to other agents as well as to the public.

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In contrast, in NZ, agents will typically only show their own listings. Splitting the commission does happen in NZ (a so-called "conjunctive" listing), but this kind of cooperation seem to be uncommon in urban areas and there is no standard agreement as with the US MLS. (In a smaller rural area, where there are fewer agents and fewer listings, it is reported that agents have agreed to cooperate.) As a result, most transaction have only a single agent, as shown in Figure 2. Also, buyers, even those working with multiple agents, see only the fraction of available houses listed with those agencies.

Use of the Web

The Web can also be used to find possibly appropriate houses, the flip side of the listing services described above. This use of the Web is shown by the shaded arrows in the two figures. In the US, many sites allow prospective buyers to search MLS listings directly. The US National Association of Realtors (NAR) sponsors the largest of these sites, Realtor.com (www.realtor.com). The US site is useful add-on for buyers, allowing them to look through listing before working with an agent, though it offers no radically new functionality compared with prior practice.

In NZ, the Real Estate Institute of New Zealand (www.realnz.com) runs a site that incorporates listings from many agencies. Using the NZ real estate site, a buyer can quickly search across listing from all agents. This functionality makes the NZ site potentially revolutionary, because there is no comparable source of information. (Newspaper ads do provide information from multiple agencies, though they are harder to search and not as up-to-date.)

Of course, to be listed on these sites, the seller must sign a listing contract, so they pose little threat to the traditional role of the agent. Because of their sponsorship by realty organizations, they exclude FSBO listings, and as yet, no competitive FSBO sites have sufficient mass to provide real competition (the bottom set of arrows in the two figures).

In the longer term though, the Web could pose more of a threat. Since the Web dramatically reduces the cost of searching multiple sources of information, a buyer could potentially search listings provided directly by sellers as easily as those provided by agents (note that from the buyer's perspective searching the Web looks the same for realtor and FSBO sites). In particular, a Web search engine could be developed that would work across multiple sites, potentially overcoming the problems of building critical mass for any particular site. A user of such a site would be able to find all houses for sale in a given area, listed or not. Realtor organizations probably took the initiative in building their sites to ensure continued control over listing information.

Finally, consideration of the process suggests that NZ agents have more to fear from these developments. First, the Web provides complete information, which individual agents can not. Second, it is difficult for NZ agents to justify spending a lot of time with customers who have only a small chance of actually buying a house from them. As a result, few agents offer much support for the search stage, meaning that NZ buyers give up less by choosing a non-agent listed house and the Web may seem like an equally good, if not better, alternative. (This situation is reflected by the fact that the buyer in Figure 2 receives comparable information from the Web and from real estate agents.) In contrast, the US MLS enables agents to provide nearly complete information about availability, and the MLS agreement guaranteeing agents a share of any eventual sale provides an incentive for agents to provide additional services to attract and keep buyers.

Stage 3: Evaluation.

In the third stage, promising houses are evaluated further. Typically, this evaluation is done in person during a walk-through or showing. The importance of this stage is an essential difference between real estate and most of the goods previously studied in the electronic commerce literature. While buyers may be comfortable buying a book or a music CD based on the title and a short review, few would consider purchasing a house having seen only a short description (although occasional exceptions have been reported).

An advantage for a buyer of working with an agent is that agents can show houses more easily. Houses can be viewed during an open house arranged by the selling agent or the owner. As well, real estate agents often have access to a house key, stored by the selling agent in a lock box near the door. US MLS agreements allow any member agent to access the key and give a showing. In NZ, typically only the listing agent can give a tour (perhaps explaining in part the greater number of open houses in NZ). Of course, an individual seller can also show the house, but the process is less convenient and more time consuming for both buyer and seller.

Use of the Web

As mentioned above, in-person evaluation of a house is usually necessary because houses are a unique and difficult-to-describe good, which would seem to rule out the use of the Web. However, entrepreneurs have successfully devised ways to sell other unique goods over the net sight-unseen. For example Manheim Auctions (www.manheim.com) auctions used cars to dealers in this way (Booker, 1997). Similar systems have succeeded in Japan as well. One factor in Manheim’s success is the buyers’ confidence that the cars will be as advertised. Obviously, developing the necessary level of trust between buyers and sellers is difficult. Towards that end, one Web real estate advertisement reportedly offered an interview with prospective neighbours and a three month guarantee of satisfaction to permit potential buyers to feel comfortable buying without an in-person visit.

A second reason for Manheim's success is their ability to adequately describe the cars being sold. In this vein, Web sites such as Virtual Home Tours (www.hometours.com) offer additional information about the houses, in the form of a virtual walk-through. This feature provides potential buyers a mini-tour of the house, featuring panoramic photographs of the neighborhood, the house, rooms, etc. The user can look around 360 degrees, go forward or backward, as well as zoom in on important features. It seems unlikely that such virtual tours will completely replace on-site visits, but they might help speed up and improve the search by allowing potential buyers to narrow the range of alternatives considered. However, replacement of on-site visits would also reduce the control real estate agents exert over transactions.

Stage 4: Negotiation.

After a desirable house is identified, the potential buyer makes an offer to purchase the house at some price. The buyer gives a deposit with the offer, which will form part of the payment for the property. The offer usually contingent on a number of factors, such as getting financing, having the house inspected, etc. (In the case of a sale by auction, popular in NZ, the bid is non-contingent.) In the US, buyers' agents can advise buyers on the price to offer or other points of negotiating strategy, although since they are paid by the seller, they can not act against the seller's interests. (It is also possible contract directly with an agent for representation, which removes this conflict of interest.) In NZ, agents clearly work for the sellers and buyers are on their own. The seller may receive some number of offers or make a counter-offer to the potential buyers (e.g., at a higher price); again, the agent will advise the seller on this process.

Eventually, buyer and seller agree to a binding contract for a sale. At this point, various other professionals become involved to remove the contract contingencies by inspecting the house for defects that might affect its value, appraising it, arranging financing, etc. As well, a title search is done to ensure that the seller actually owns the property or title insurance may be obtained to cover the slim chance that the title is invalid. In New Zealand, agents are paid from the deposit when the contract becomes unconditional, while in the US, agents are paid when the sale closes.

Use of the Web

As described above, many professionals are involved in the final details of a purchase. Agents increasingly coordinate a Web of other service providers of value to their clients (e.g., building inspectors, appraisers, loan officers and lawyers) to facilitate transactions. Agents add value for their clients by quickly assembling the necessary professionals, thus providing one-stop shopping.

Many of these supporting services are also available via the Web. Obviously, services that involve physical visits to the property can not be performed on the Web, but a large number of contingencies are information-based. For example, Fletcher (1997a) discusses a number of US sites that offer appraisals, such as Experian Information Solution (www.experian.com), which provides the assessed value of a property and the prices of comparable houses. Overby (1997) reviews a selection of US mortgage sites. Mortgage origination on the Internet has reached one percent of total originations in the United States, according to California-based Myers Internet services (www.myer.com). Warren Myer, company CEO, said that the company expects this figure to increase to 2.5% in 1998, 5% in 1999 and to reach 12 % by the year 2001 (Myer, 1997). Homeadvisor.com includes an integrated mortgage finance component, which permits users to evaluate lenders' offerings and, while on-line at the Website, to actually qualify for a loan.

Of course, these services are not part of the function of a real estate agent, so at one level use of the Web has no affect on their role. However, agents do add value by helping their customers through the process and by providing contacts to the necessary professionals and the Web can support these functions. For example, most real estate Websites provide an overview of the sales process and many provide links to other services, substituting in part for the services of the real estate agent.

Stage 5: Execution.

Once the contractual issues are resolved, the sale can close, meaning that the money and house change hands. Details of the transfer differ from jurisdiction to jurisdiction, depending on the legal traditions. For example, in New York State, ownership is transferred by giving a deed to the property, which is then recorded at the county courthouse. To determine ownership of a piece of property, it is necessary to search the records for transfers involving that property. In New Zealand, property ownership is recorded on a certificate of title held at the Land Transfer Office, greatly simplifying the process. The transfer is usually handled by a third party (e.g., a solicitor or the title company) that both sides trust, although again, who that is differs from jurisdiction to jurisdiction.

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Use of the Web

Currently, the legal system creates obstacles to electronic closings. A second obstacle to on-line transactions is the lack of standards, and of entities with sufficient market power to create them (Real Estate Tech Trax, 1997). However, given the potential savings, it is merely a question of time before some non-bank lenders decide to close transactions themselves. Microsoft, to name one company, is interested in some aspects of the banking business. Given its market power and deep financial pockets, this firm might offer closing services.

Finet Holdings has gone beyond linking its financial services to the emerging real estate sites. This company built its own network to automate the entire real estate transaction process. Its subsidiary, the Property Transaction Network (PTN, www.theptn.com) attempts to bring real estate agents and consumers together with real estate services and insurance providers, while its finance site, www.iqualify.com, provides instant loan approval.

Other such services are provided by traditional players. For example, the Property Transaction Network (www.theptn.com) is offering already an “Electronic Closing Table” on which—figuratively speaking—the real estate transaction can be completed online. This “Table” provides a secure area in which all transaction participants (real estate agents, insurers, title companies, escrow representatives) may safely exchange documents. PTN has made a “Closing Table” agreement with Stewart Information Services, a title company with 3,800 locations across the US and targeted 50,000-plus realtors to participate on the Electronic Closing Table.

Conclusion

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.

However, the general trends should be clear. First, while the process is information-intensive, different kinds of information are needed at each stage. For example, early stages require information about the condition of the market in general, while later stages focus on the particular property being transferred. Second, the Web has a great potential for facilitating access to some, but not all kinds of information, and therefore, has a greater or lesser potential impact on different stages. For example, it is easy to provide information about listings on the Web, but difficult to provide the information necessary to make a final decision about which property to purchase. Third, the impact of the Web depends in part on the availability of information in the circumstances that precede its adoption. For example, providing Web access to listing information makes more of a difference in NZ than in the US, because of the difficulty in accessing such information in NZ before its introduction. Finally, it is necessary to consider the details of the industry and its processes to properly assess the potential impact. For example, the fact that (for various good reasons) agents in NZ provide fewer services to buyers than in the US suggests that the Web has a larger potential impact in NZ.

Conclusions

Real estate is an information business, and consequently, is deeply impacted by information technology. The escalating rate of change can be seen when studying firms in this area as well as 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 key argument of this article is that differences in an industry and its process will have an impact on how the Web is used and accepted. In the US, the Web largely duplicates what the MLS does. The information is more easily accessible, but it does not seem yet to have dramatically changed the balance of power in the industry.

On the other hand, in NZ, the Web potentially provides something new, namely, the ability to easily search for properties across agencies. Without Web, it is necessary to call or visit multiple agencies or manually search through listings in the newspaper. Realnz.co.nz has become an MLS for a buyer, allowing them to see across multiple agencies inventories for the first time. Indeed, this functionality has recently resulted in the demise of the formal MLS in NZ. However, developments that threaten the balance of power in the industry will be opposed. For example, if the industry Website threatens to reduce the visibility and importance of the agencies, large agencies might decide to opt out, creating their own Websites instead.

More general version of process

The process we described is specific to real estate. However, a similar analysis could be applied to other industries. For example, a more general version of a sales transaction is shown in

Table 1. Individual companies will likely want to map their specific processes to see how the Web might support or threaten their business.

Again, the Web can provide different kinds of information to support particular stages of the process. For example, buyers find the Web useful in step 2, searching for products and services, since the information required is relatively easy to provide on the Web. Indeed, many search engines now allow buyers to search across the offerings of multiple Web stores. Similarly, the Web can support stage 3, selecting a vendor, by allowing buyers to obtain reports from other buyers about their experiences with a product. An unhappy customer now has the potential to tell the entire world about their experiences. On the other hand, for most goods step 7, perform maintenance, requires some physical contact (though even here there are significant information requirements, such as diagnosing the problem or scheduling a visit). Companies should think across the entire transaction to see how best to support their customers using this new medium.

As well, consideration of the role of the Web can help identify potential threats. For example, many sellers have historically serviced a limited geographic area because of the need for continued contact with their customers. The Web allows such companies to reach a broader base of customers, a fact that led the NZ government to label it the “Freezer Ship of the 21st Century”. On the other hand, the Web also allows prospective buyers to consider a wider range of suppliers, meaning that firms will be exposed to competition from all over the world. Unless companies can clearly articulate what makes them distinctive, they risk being submerged by a wave of Web-borne competition.

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Tables and Figures

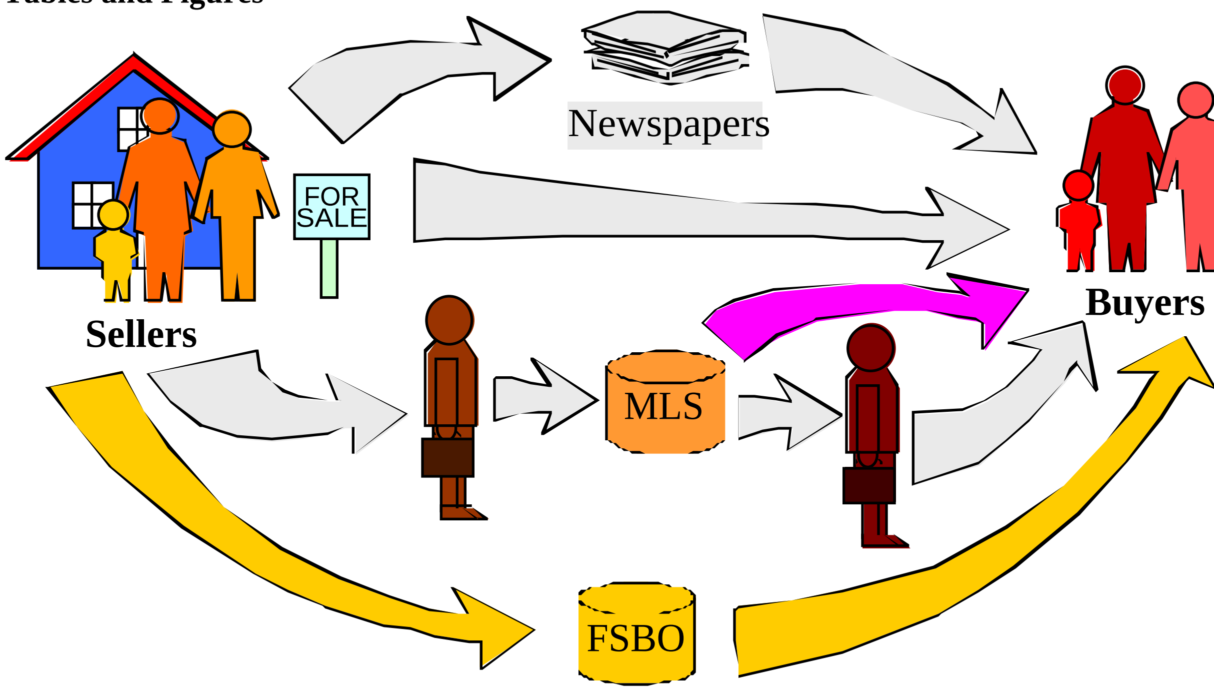

Figure 1. Flows of information from buyer to seller in a US real-estate transaction.

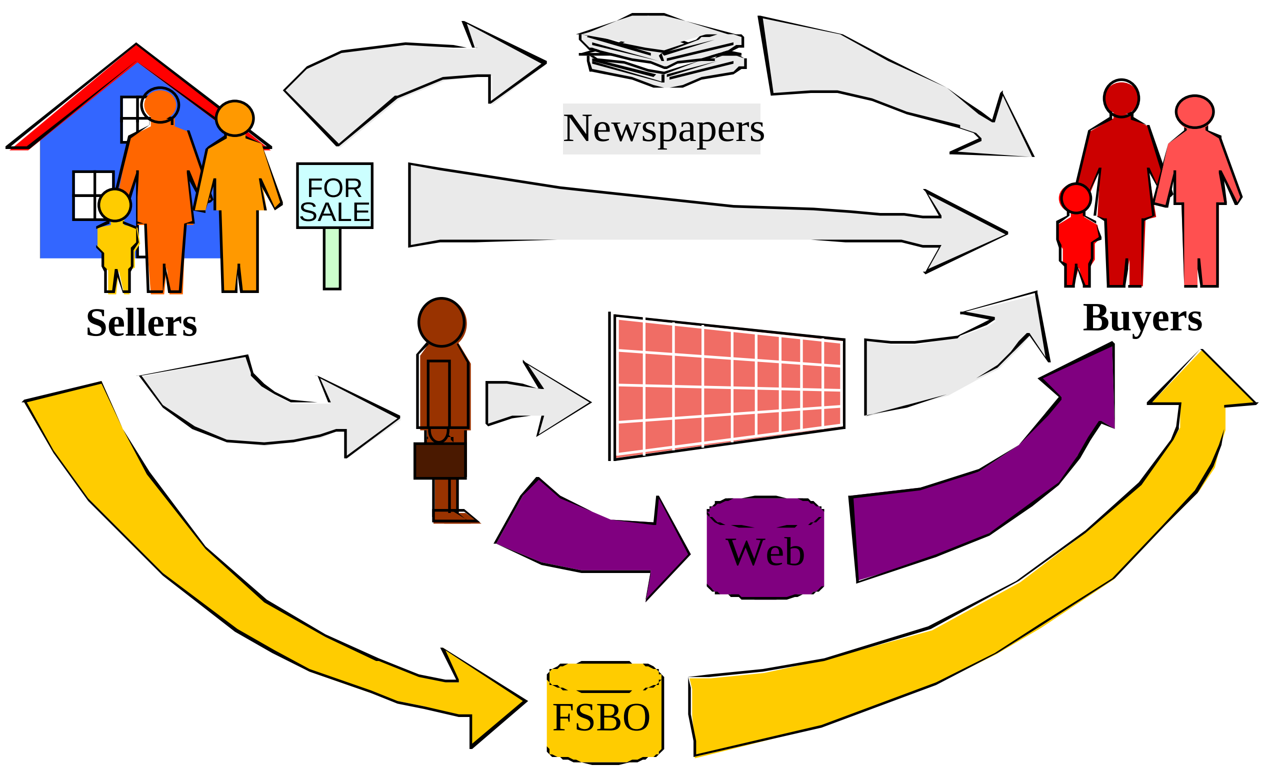

Figure 2. Flows of information from buyer to seller in a NZ real-estate transaction.

Table 1. Stages in a typical transaction.

Buyer's perspective	Seller's perspective
1. Identify a need	1. Identify buyer's needs
2. Search for products or services	2. Create products or services to meet need
3. Select a vendor	3. Advertise and promote product
4. Negotiate a purchase (including delivery, inspection, etc.)	4. Negotiate a sale (including shipping, etc.)
5. Make payment	5. Ship goods
6. Use product	6. Invoice
7. Perform maintenance, etc.	7. Receive payment
	8. Provide after-sales support