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How Digitality Affects the Way People Think about Remodeling Projects

Perhaps it would be better to say, "How are people **not** affected by the digital revolution when it comes to a remodeling project?" Digitality envelopes us as we wake in the morning; as we move around our homes, and as we carry on our lives from morning until dark. We awaken with a digital alarm clock; the coffee is ready because our digital coffeemaker was set the night before—or the week before—to ready a cup of fresh brew when we get up in the morning. Many digitally operated televisions are on first thing in the morning and we use digital controls to operate our bathroom fixtures. Where is the digital revolution not touching us? I will look at and dissect a part of our lives that is touched by digitality: the remodeling of rooms in the home. How do we depend on the electronic age to help us through the process and why? How does digitality help us to think through the process of remodeling? Why do we now choose to allow digitality to lead us through many of the steps of updating our home?

The Internet has been around since the 1970s and has been a tremendous influence in our lives. It is composed of many interconnected computer networks. Each of those networks may link thousands of computers globally. The Internet has made it possible for people all over the world to digitally communicate with each other effectively and inexpensively. Individuals who have Internet access can communicate directly with anyone else on the Internet, make information available to others, find information provided by others, or sell products with a minimal overhead investment. It is hard to say exactly how many people use it, but it has been estimated that at the end of the year 2000 there were 407 million users of the Internet! The number of users was expected to double again by the end of 2002. Will it ever stop?

Companies and individuals use the Internet in many ways. Companies use the Internet for electronic commerce, including advertising, selling, buying, and providing customer service. In addition, companies use the Internet for business-to-business transactions. The use of electronic mail (e-mail) speeds communication between companies and individuals. The Internet is used by many groups of people for communication, finding information, and buying and selling goods and services. (Encarta 2004)

This tremendous surge by society to use the Internet in many ways has touched, in a big way, the process of updating the home. It is amazing to see how much information is on the Internet about even starting the remodeling process. Someone who considered a remodel in the past would talk to friends and neighbors and get input from those people regarding their own experiences with remodeling. This normally would be a long process and, of course, lots of time would be spent with friends and neighbors. The Internet has changed much of the thought process by allowing interaction with a much wider scope of information. Now people often have no idea their neighbor is working on their home until workers start arriving in droves in the neighbor's driveway. The Internet allows people to do much of the leg-work in the home, cutting out quite a bit of travel time and human interaction. This

may be a good thing for the person with a busy lifestyle; however, the human interactions are more infrequent.

In some ways, this goes against the “normal” way humans, as other species, were biologically created. Humans are generally social creatures. Technology has changed human behavior. Michael Heim discusses this phenomenon when he says:

Unfortunately, what technology gives with one hand, it often takes away with the other. Technology increasingly eliminates direct human interdependence. While our devices give us greater personal autonomy, at the same time they disrupt the familiar networks of direct association ... we have less to do with one another ... our communities grow more fragile, airy, and ephemeral even as our connections multiply. (Trend, p. 81)

This is unfortunate because we as a society, instead of getting together to talk about a remodeling project, stay hidden away in the home. In some ways we know less about ourselves because of the Internet.

We think about the steps in a remodel process differently. We now are able to go on the Internet to find a designer or an architect to design or to redesign a new space. It is also possible to investigate all of the products and components of a remodeling project and to assemble detailed information about each desired item. Consumers do quite a bit of research before they even talk to a designer in person.

A homeowner will generally give the selected designer specifications and pictures of appliances and other products after doing research online. This has significantly changed the dynamics of the relationship. In the past, designers would recommend appliances or refer the homeowner to the designer’s appliance source. The designer had significant power and control—a way of showing their knowledge of the industry as well as offering the project as a complete package. Designers now must be much more open to discussing the pros and cons of products pre-selected by the homeowner instead of specifying their own selections. Designers must be much more flexible in the way they think about a job.

The Internet and its potential is one of the reasons consumers are much more knowledgeable about remodeling. They investigate online in the home before setting foot in a showroom. What are people doing online? Karla Kregel of a Chicago-based Web design company specializing in the design industry says:

Stated simply, the answer is research. In other words, they’re gathering the latest information on products and services available to them. When it comes to people searching the Web for information within the kitchen/bath industry, they’re looking for remodeling tips and photographs of innovative designs, as well as information on appliances and advice on managing a project. (Kregel, 1999)

The type of information that is available on the Net is the kind that again, not too long ago, you would only get by leaving the home and meeting face-to-face with a vendor. For example, there is an insurance company’s Web site that discusses important information for the homeowner when they are thinking about remodeling. The Web site explains how a remodeling project can affect your insurance needs. In many cases there is value added to a home which would influence you to increase insurance coverage. The site explains that if you hire someone to do the remodeling you should make sure that the contractor(s) have worker’s compensation insurance

as well as liability insurance. Make sure if you are doing the work yourself that your homeowner's insurance covers an injury that may occur. (Insurance.com 2001) Do you see what this is saying? People do not even have to visit their insurance agent to find out information that may apply to their remodeling project. What has happened to the day of the friendly, neighborhood insurance agent? It seems like it was not that long ago, does it? The new technology is easy and convenient for many. It is no surprise that research is one of the top reasons the Web and the Internet are growing so fast.

Net users are better educated and are typically in a higher income bracket. According to Cyber Dialogue, 43% of users (probably more now) hold at least a bachelor's degree. (Krengel, 1999) Doing research almost certainly comes easily to this group based on my own experience in college. Many people who have a higher income are in a large group who are doing remodeling. If they did not have the money, they would not be able to invest in remodeling and have access to the Internet. The trend to use the Internet for research is now a huge part of the process because of the high stakes involved in an expensive remodeling project.

We might take a quick look at things in the recent past that may well be influencing people to stay at home more and to do research and shopping from a home computer. The timing of the big surge in computer and technological usage and the Internet has an interesting parallel to the events of September 11, 2001. An article discussing consumer-buying trends states some interesting facts. Kleber says:

What's different since 9/11 is that there's significantly more focus on family, more focus on the home as a haven and as a 'cockpit' from which to run one's life.... There's a quest for stronger relationships, a psychological balance in people's lives, a desire for security and a focus on keeping the family safe. We are seeing people placing a higher value on relaxation and we also see them searching for knowledgeable services. (Kbdn.net 2003)

More and more people use digital technology from their home. They feel safe at home and they are able to spend time with their families. In addition they are able to research products that will be used in a high investment remodel project from many reputable sources of information on the Internet.

Not only are individuals who use the Internet changing the way they think about remodeling, but the companies that serve them have also changed their thinking. Earlier I mentioned that insurance companies are following their consumers to the Internet. They are providing services and information online for their consumers. Remodeling contractors provide "Reference Libraries" online filled with information. One contractor, Parrish Construction in Boulder, Colorado, has an article on his Web site on "Hiring a Remodeler." He discusses how homeowners will spend in excess of \$100 billion on professional remodeling this year. Empty nesters are converting unused bedrooms into master bathrooms and home offices. (Parrishbuilt.com 2004) The service companies want to be where their potential customers are shopping.

A company with a decent Web site increases their visibility. In the past it may have been newspaper ads, the yellow pages, billboards, brochures, mailings, and yard signs. Web sites offer consumers—in their homes—full-color pages of information on the company. Web sites are easy to update (much more affordably than updating printed material) and a Web site projects to potential clients the latest in style and image. People want to know that a company has a Web site.

The Web is also a great place to locate accurate product information. If a designer, for instance, does not have up-to-date specifications on appliances, he or she is easily able to go to the appliance company Web site and find everything from current product images to pre-installation specifications to finishes to electrical requirements. Most major manufacturers are online with this information and their sites are user-friendly and informative. It used to be that designers had to call an appliance dealer, leave a message for a sales person, and maybe they would eventually get a return call with the information—usually it would take numerous phone calls involving an enormous waste of time and effort by all of the parties involved. Designers as well as dealer employees constantly suffered from the stress of waiting for information! The Internet has totally changed the way remodeling industry companies and designers think about the remodeling industry.

Not only has the way we think about researching information about remodeling changed, but the way we think about the images that are created to help consumers visualize a project has changed because of digital technology. What does that mean? It means CADD (Computer Aided Drafting and Design.)

For many years blueprints, elevations, and images were produced painstakingly by hand at a drafting table. There were designers that did beautiful color renderings that took hours to create and were one of-a-kind pieces of art. Mike and Tom Lazear are credited with developing the first PC CAD software in 1979. Autodesk, the parent company of AutoCAD, the most-used architectural drafting software, was founded in 1982. For many years, this software program was used mainly by architects and engineers, but now it is taught in many colleges because of the quality and specificity of the software.

The move from the literate creation of blueprints by hand to the computer-generated renderings of AutoCAD has caused one of the biggest changes in the way that we think about remodeling. The evolution from the first Apple PC in 1985 to the affordable computers available at discount stores today has been fast and furious. Along with these more affordable computers, the variety and availability of reasonably priced software is immense. It is now realistic for consumers to purchase software which they can use themselves to create a computer-generated image of a new space in their home. It is difficult to visualize and plan a new space and software helps to make the process easier for the consumer to plan alternatives and to see results.

Many consumers now expect designers to provide computer-generated drawings for them. The "big box" stores like Home Depot and Lowe's all provide computer drawn floor plans to customers. There is very little hand drawing done in these larger home centers. Now, it is what consumers expect when they purchase a new kitchen. They also expect a computer-generated pricelist to be quickly created for their specific project. An easy-to-read list of components for the planned project often will lead to comparison shopping at numerous kitchen dealers or remodeling contractors. This has made the industry much more competitive and has driven what were once custom projects, even for small remodels, into the realm of commodities.

This computer-drawing trend is growing to include more and more kitchen and bath specialty shops, design and build remodeling firms, and interior designers, as well as the larger retail stores. There are many software programs that are simple to learn and to use, are affordable, and are usable by companies other than an architectural firm. Stephanie Witt, a well-known kitchen and bath designer, is convinced that technology in her industry has come of age. She says:

For years, designers who dealt with custom cabinetry and a discriminating clientele felt that clients did not want to be subjected to 'computer-generated drawings.' How wrong we were. Today's computer-generated renderings of kitchen layouts are superior in many ways to the hand-drawn presentations of the past. First, the computer eliminates the possibility of placing too many or too few inches of cabinets on a given wall.... We can now change door styles, elevation heights, wall dimensions, colors and much more without erasing and re-drawing an entire plan by hand. (Vision 2004)

We can see that the digitality of design helps eliminate costly errors. When someone creates a wall on the computer, it enforces physical constraints unlike a blank page. It is difficult to overfill the space by placing too many cabinets. This helps designers and dealers feel more confident when placing orders and specifying products. Again, this is another example of how digitality helps us by allowing us to think a little differently about a remodeling project. Instead of thinking about a problem with fit, we may use our minds in more productive ways.

There are some CAD programs that will create a virtual space as well as a digital space. This gives a homeowner more ways to look at their project before investing a penny into it. A pseudo-virtual design process generally leads to a talented designer's ability to create a realistic virtual space that the consumer can appreciate and understand. John Pile agrees with the idea of a virtual space becoming the future:

The goal of virtual reality is to create a totally synthetic surrounding that would be as persuasive as reality. A participant can visit various locations and seem to look and move about within a setting that does not exist except within the simulation equipment.

By its very nature, built reality is costly. It takes up space and uses real materials. A virtual-reality environment would occupy no space, use no materials, and have no cost beyond that of its programming. (Pile p. 29)

One designer commented that clients from her business, Home Visuals, might use copies of images to get approval from homeowners' association boards. (Mann, 2004) We are now able to think about a space as if we can actually walk around in it before making an investment. This is another interesting and new way to think about remodeling.

We must remember that the computer is a tool and is not infallible. The computer user can make errors in entering information and must be very careful. Computer-generated images generally have a disclaimer saying something like, "All dimensions and size designations given are subject to verification on the job site and adjustment to fit job conditions" or "This drawing is an artistic interpretation of the general appearance of the design. It is not meant to be an exact rendition." These statements may apply to a hand-done drawing as well. Sherry Turkle mentions a few things about computers which definitely need be considered when using CAD. She discusses a conversation between senior professors in engineering at MIT regarding the transition from slide rules to calculators. She says, "The professors insisted that ... [the use of slide rules] required students to maintain a mental sense of scale, whereas those who relied on calculators made frequent errors in orders of magnitude." Turkle then discusses word processing versus thinking; another parallel of CAD compared to hand drawing. She comments that:

A manual typewriter ... moves at a pace that allows time to compose your thoughts. As many of us know, it is possible to manipulate text on a computer screen and see how it looks faster than we can think about what the words mean. Yet the ability to quickly fill the page, to see it before you can think it, can make bad writers even worse.... The idea of thinking has become exotic. (Turkle)

Manufacturers have helped in this change in thinking. Many design software programs not only have the capability to produce images, but they are able to produce a price. This saves time for the consumer as well as the vendor. The computer is able to create the design using a certain manufacturer's catalog and then generates a total price for the product. This has changed the way vendors think about the process; they are able to produce designs and pricing quickly and for more people.

The remodel of a home is something that is done either by a "do-it-yourselfer" or by professionals. The process of remodeling a kitchen, a bathroom, a home office, or any room is quite stressful. Having the space in which you live torn up and pulled apart along with stranger in and out of your home all day long is very disturbing to anyone living there. If there is a way to change the way we think about the process, a way to make it more fun, why not do it that way? If you are able to see a beautiful perspective picture done quickly on a computer, or get a computer-generated price on products in ten minutes, it makes life a little more enjoyable and manageable.

The Internet has changed the way we think about time. Computers help us research products and allow us more time to do many other things in our lives. We have computers that will help us plan a new design, software that lets us pick and choose different finish colors and materials, and Web references for almost any possible product. The way we think about shopping has changed. We can shop from home for products we have never seen but already know that we like them, thanks to digitality.

We are able to take a virtual tour of a room as if it was already remodeled, before one worker is in our home. Virtual reality lets us change the way we think about a space and we can rethink it as often as we want. Instead of trying to visualize only in our own mind, we are able to take a virtual reality tour—with the rest of our family or with friends.

The Internet, computers and computer images, and virtual reality tours of the home—if you stop and think about it, all of these are methods of digital communication that inspire human communication in some ways. It's a basic human need. Walter Ong says, "Human communication, verbal and other, differs from the medium's model most basically in that it demands anticipated feedback in order to take place at all." (Ong, 173) It is a good thing to have constant feedback and communication—inspired by digitality—between all of the people involved when remodeling a home. It's interesting how computers have helped us change the way we think about this and help us at the same time, isn't it?

Digital media is an extension of and a form of communication and includes the electronic word, images, and sound, to name a few. That is exciting. It is exciting that we have new options in the ways that we think about remodeling our personal spaces. It makes life a little easier to think about other things, doesn't it...?

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