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### Economics in the 21<sup>st</sup> Century

In the average person's life, there are many questions one desires to know in the quest for identity. Why am I here? Who am I? What am I doing here? Where am I going? These are the questions that keep us up at night, the questions that drive us, and the questions that define us. Obtaining the answers can be as difficult, or as easy, as following the path you have had lain out before you. When walking the path of life, everyone discovers desire at some point. The simplest desire to understand is the desire for more. If something brings you happiness, you desire it. Most things in life can be purchased. If you want to be a good dancer, buy some dance lessons. If you are hungry, buy some food. If you want to be as smart as possible, go to college. If you want companionship, hire a dating service. If you want a clean house, hire a butler. If you want a house, go buy one. After deciding money is great and it can solve all my problems, the only question left is: How Can I Become a Millionaire?

When 21 year old Alex Tew of Great Britain asked himself that question, in order to make money to pay for college, he came up with an answer. Now after a relatively short period of time, his answer has taken him almost two thirds of the way toward millionaire status. The answer that Mr. Tew decided to implement

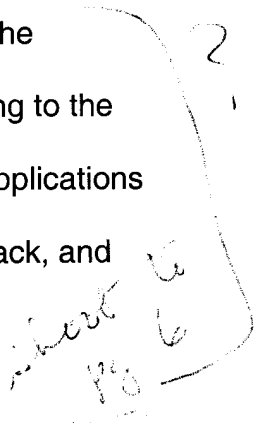
was a simple idea to sell pixels on his web site. After media exposure sales went through the roof, \$40,000.00 were generated in the first two weeks (which would amount to 40,000 pixels). Satisfied customers became outspoken for the service when web site access requests soared from click through traffic originating from Mr. Tew's millionaire home page. Recognition and success became the reward for Alex the entrepreneur.

The concept of selling pixels was not unique in its design. Banner Advertisements for web sites have been around since the web became a marketplace. Small clickable advertisements spread out over heavy hitter web sites, linked to eager clients hoping for hits have been used successfully by website designers, and banner ad services to generate money. The money is usually allocated on a per hit basis that is the more hits an ad produces, the more money it earns. This continues on until the ads are no longer effective, and the service is canceled, eliminating the fact that the ad ever even existed.

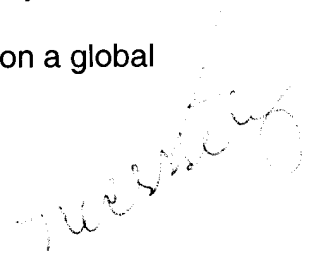
One of the things that made [milliondollarhomepage.com](http://milliondollarhomepage.com) successful for Mr. Tew, was that his implementation of selling pixels on a per pixel basis was completely unique. Not only that, the pixels would retain their value because he promised to keep them in cyberspace forever. Not many products offer a lifetime guarantee. It's almost like paying to have a star named whatever you want. With this simple distinction made, [milliondollarhomepage](http://milliondollarhomepage.com) has proven that digital

information can be sold, in any form, by anyone, to anyone.

The pixels (picture elements) that were sold for one dollar a piece are digital information. Digital information is stored as 1's and 0's in computer memory. These binary values can be decoded into signals that can do or be anything. Any form of traditional media can be replicated today, by a digital equivalent. The printed page has been replaced by text files, HTML (hypertext markup language) documents, and PDF (portable document format) files. No longer do you need a physical book, or magazine. No need for the paper to be delivered, just browse to your news provider of choice and stare at the screen. If paper copies are required, you can always print one out, eliminating the need for the information distributor to worry so much about physical constraints. Paper is a costly resource, pixels are basically free. Advertising billboards are the equivalent of [milliondollarhomepage.com](http://milliondollarhomepage.com), paying to proclaim something to the world all for the sake of being looked at. But the media replacement applications don't just stop at print, they expand to television, movies, music playback, and just about any other information mechanism ever created.




Paper, plastic, and other renewable resources have always been a bottleneck to the potential economic success of money making projects. If a rock band wished to have its music heard in the past, they would have to play live performances in front of crowds of people. If they wanted to be heard on a global



scale, worldwide tours would have to be arranged and performed. Music recordings would need to be made, packaged, distributed, and marketed in order to insure the music would be heard. Now, a resourceful musician can put together a computer based home studio for an affordable fee. Once a song is completed and stored on the computer, compact discs could be made and distributed as needed, computer music files such as MP3 format could be sent out over the web to anyone. One such success story is that of DJ Danger Mouse. After self producing his breakthrough hit release "Grey Album", which received an unbelievable one million illegal downloads in one day, he went on to gain more fame by joining up with DF DOOM to carve a niche in Cartoon Networks fan base, by creating Danger Doom, a musical act that takes cartoon sounds featured on the Cartoon Network's "Adult Swim" viewing time slot, and samples them into songs. It is obvious that Danger Mouse was a very lucky artist, as was Alex Tew a very lucky advertiser, the undeniable fact is that the content created by these folks got to their intended audience. Money was merely a byproduct of effective content management.

Content management has several facets that determine the profitability and economic value of the content being managed. The creation of good content is a painstaking process that generally requires the time and efforts of an individual, or group of individuals depending on the complexity of the content being created. After it is designed it is refined to insure the highest quality content



has been achieved. This can require, review, testing, modification, research, outside consultation, whatever standard procedure or method that has been proven successful in accordance to the given content being enhanced. Once the content has been deemed suitable for mass consumption it has to be stored. Until content is stored in a container, it is merely information. Information distribution is the hopeful outcome of information creation, but without a container, information is pretty much memories that will fade with time.

A perfect example of information lacking an appropriate container is Native American history. Native American culture has held a strong faith in oral tradition for centuries. The reciting of stories would be used by tribal elders to enlighten fellow tribesmen. These stories would contain characters that were easy to relate to, who would go through experiences that provided some valuable lesson to be gained by the outcome. Often these stories containing magic creatures as main characters would be presented as fact, usually with some mystical explanation. Regardless of whether the stories were spawned from reality, imagination, or a divine source, many of them were not written down. Consequently, it is as if those stories never existed. The very languages that they were spoken in have become endangered due to obvious reasons. Native Languages of the Americas is a Minnesota non-profit corporation, dedicated to the preservation and promotion of endangered American Indian languages. This erosion of culture and history is tragic, but gives the example of the direct result

of container less information.

Information containers have to take on a physical form. Even the human mind, the greatest most complex content management system ever to exist, can only be contained in a brain. Many types of brains exist in nature, but the human mind, weighing in at around three pounds, can process and store more information than anything known to mankind. Pondered ever since the 17th century, when René Descartes proposed that bodies of animals are nothing more than complex machines, Artificial Intelligence has become a reality with computer technology. No person has had their brain replaced by a computer yet to date, but the mere possibility shows the boundless limits of technology as a vehicle for information storage. When you have a networked computer system, you have the ability to share your information with the world. Anything that can be stored on a computer, and be transmitted to another computer. This can be done virtually free and with as little effort as is required to burn a cd-rom, or print a paper page, quite often with less effort. Having a computer networked to the internet with P2P (peer to peer) file sharing software is like having a garage in the biggest nationhood on the planet. A garage that lets you store all your records, books and videos, and browse the record, video and book libraries of your neighbors. The concept of a garage sale comes to mind quickly in this scenario. The thing about this neighborhood that doesn't apply in physical garage sales is that anything in a garage can be copied for free by the garage owner. In this

neighborhood you can have a yard sale and still keep everything sold off the yard stored in the garage. You could have a yard sale where everything was free. This dilemma has created major copyright issues that cease to be solved.

It is said that without scarcity there would be no reason to study economics. Scarcity means that there are not enough, nor there ever be enough, goods and services to satisfy the wants and needs of all individuals, families, and societies. So digital content basically takes our whole economic basis, and throws it out the window. Scarcity does not apply in a world where there are enough goods and services to satisfy the wants and needs of people. If everyone can share their garage and its contents in the global neighborhood, why would anyone go shopping? Well Napster, a P2P music file sharing program company, has become a pay service that would be better described as a swap meet rather than a garage sale, where fellow file swappers pay to use the same service for the convenience, safety, and ease of use. Also piece of mind is paid for when the customer assumes that their money will reach the people responsible for creating the content that is to be enjoyed. Apple computer seems to have figured out how to keep the music store concept alive with the iTunes music store, where eager music fans can purchase music, cheap and easy. Making it clear that people will pay to get their content, especially if it means they don't have to search through some garage full of mislabeled boxes to find it. Variations of these music providers come and go, some free, some pay, but these constructs represent

online world to the real world. A music store online could just as well be an artist, or label run site. If an artist were popular enough, they could make a living off of profits made from their store. But generating sales is not always possible, especially for something that has little market recognition. A need has to be created before a void can be filled. If people don't want your goods, you could have an unlimited amount to provide, but not be able to give it away.

One's very decision to purchase something is almost always influenced by information they have absorbed about the good. If one has obtained information that indicates that it would be beneficial to purchase something, they will be more inclined to purchase the good. The influential information acquired could have been from a product review from a trusted source, an attention getting advertisement, or just word of mouth. When this information reaches its destined target, the process has begun.

The very information that is used to influence the decision to purchase content is often times are purchased. Purchased by advertisers, and purchased by consumers. When an ad is placed in a magazine, the ad is paid for by the seller. The magazine is then purchased by the consumer. Unless that initial purchase was made by the advertiser, future purchases would not be generated. On the flip side of the coin, if the consumer had not purchased the magazine, telling them to purchase things, future purchases would not be made. So as long



as people rely on radio, television, print, web, and other market based information services, and they will remain influenced by external sources, rather than personal experience. Milliondollarhomepage.com attracted sales because it was proven enough to pixel buyers that their pixels would in fact reach and have an effect on others. Advertising would not exist if it did not work. In advertising you must advertise to sell advertisements. Makes perfect sense.

Content can become destroyed, but when that content still exists elsewhere, it can be gained again. Destruction of content is a problem to consumers when physical materials breakdown and degrade over time. If ones garage were to burn down in real life, they would need to replace everything that was inside of it piece by piece, rare antiques would be lost forever. If your garage in cyberspace burned down, you'd better have a copy backed up in the real garage (or office) on disc, or you will have to replace everything piece by piece. Fortunately backing up important computer data is cheap and easy, unlike home insurance. This advantage is one that makes digital content that much more alluring for consumers, knowing that a downloaded video will never degrade in quality like video tapes will, and a sound file will never get scratched like a compact disc will just from casual use.

Digital content can't be stolen from your car, like your cd collection can. If someone did steal some body's digital content, you would still retain your copy

(unless they purposefully delete after copying). Hackers are considered to be the hoodlums of cyberspace, out to steal your credit card number, steal your computer contents, steal your identity, and then trash that and anything else they can. Truly hacker is the wrong term for these computer vandals, but threat to digital content exists in the form of criminal minded people out to control information. They find ways to enter computer systems and then take control, either manually or through automated attack scripts referred to as worms, or virii. Currently hacking is a relatively low threat to digital content buyers, but still exists as a deterrent to those who have not yet adopted the digital lifestyle. P2P network programs such as Kazaa, and LimeWire have become effective distributors of malware designed to harm computer systems. Spyware built into these programs often gets deployed during installation, leaving one helpless to external control like advertisers tracking your online habits and then bombarding you with advertisement windows obscuring the whole computer screen at times. If that isn't bad enough, malicious trojans can be downloaded and installed in the form of innocent digital content, allowing attackers full control over ones system. Virus programs can also be picked up, infecting systems sometimes leaving them unusable. Aside from outside interferences, one simple misconfiguration could potentially turn yourself into your own worse enemy. If a user chooses to share the entire contents of their computer with the world, they can. Even by accident. When this happens anything from email to bank account information is up for grabs, leaving someone helpless and confused as to why their privacy had

been lost. Cyberspace can be a scary place, but the threats that exist online exist in reality as well in different forms. At least security software does exist out there that can make these threats less of a deterrent to consumers. Still no program could prevent the accidental sharing of all files, which is yet another reason why digital content stores are becoming more and more popular. Trusted sources are worth paying for.

All of this discussion has hopefully brought us to an understanding that even though digital content is intangible in most every way, there is a need for digital content and consumers are paying to fill that need. Because digital content is infinite in supplies, and more gets created everyday, it is the unlimited goldmine of the market economy. As long as 1's and 0's are effectively packaged, they will be purchased.