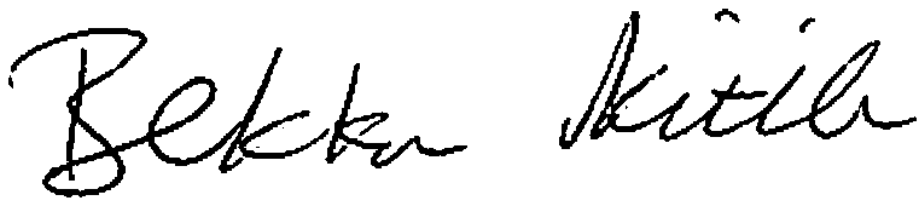Bekka Kitila
IT 103, Section 003
March 1, 2011
Project Natal: New Life

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America started with humans playing with sticks and stones, then through American advancements video games came to life. As a child the first system I ever had was the Nintendo 64, which was a simple gadget that allowed you to play games with a controller and game console. Now America has been able to make new advancements such as the Wii which allows you to control your players. On November 4, 2010 Microsoft changed the video game world and came out with the Kinect, which allowed you to be the player of the video game you were playing. The Kinect has brought a better form of game play for America with unlimited potential to better America and be a must have product.

Xbox Kinect has brought gaming to a new reality. By including never before seen equipment in gaming, the technical components of this accessory will shock you and will change gaming and how you control your home entertainment system to a whole new level. The Kinect is believed to be the building block of new research in America ranging from the future of computers to the future in space. Even though this accessory has many potential benefits, every system has legal and ethical issues as well as security concerns regarding hackers in which I will discuss. Lastly the major component that will be discussed is the most important which is how it pertains to consumers and their social lifestyle.

Project Natal is what we know today as the Kinect, it was the codename for Kinect. The product was known as Project Natal because natal referred to new life, which referred to the birth of the next generation of home entertainment. The accessory hit the press June 1, 2009 but was not released to the public until November 4, 2010. The main goal of Microsoft was to connect the gamer to the game they were playing. This goal allowed the Microsoft makers to come up with the name Kinect which connected the words Kinetic and connect, (Microsoft 2010). The main objective was also to broaden the users of the Xbox. Currently the Xbox is based towards

teenagers to middle aged players with role playing games and sports games but with the Kinect it

will be able to attract younger kids. The Xbox 360 Kinect director Alex Kipman states that the

Kinect was made to "Transform gaming and entertainment in a whole." Let's find out How?

On the Xbox website Microsoft states that the Kinect "brings games and entertainment to

life in extraordinary new ways without using a controller. Imagine controlling movies and music

with the wave of a hand or the sound of your voice. With Kinect, technology evaporates, letting

us be the one completely in control. The Xbox Kinect allows you do to everything with just your

body. The Kinect allows you to use technology to remove gadgets and make you the center of

the action. In an interview with Phil Spencer, general manager of Microsoft Game Studios, he

told the interviewer that the Kinect will map your body and even if you leave the room or leave

the area for a certain amount of time the system can still find where you are. Now the product

itself has its own technical specifications

The Kinect allows users to operate the Xbox 360 dashboard user interface as I said with

voice commands and hand guestures. The Kinect needs 190 MB of storage space in order to

function properly (Microsoft, 1). The Kinect was made possible by software technology

developed by the company Rare. Rare is an auxiliary department of Microsoft Game

Studios owned by Microsoft. Another vendor that helped with the Kinect was Prime Sense

which helped make the Range Camera and 3D scene information, (Andreas, 2010). This is done

by the 3D scene being projected from infrared structured light. The Kinects sensor outputs video

at a rate of 30 Hertz, has a practical ranging limit of 1.2–3.5 m, and operates the audio channel

processing at a 16-bit audio range at a sampling rate of 16 kilohertz, (Microsoft, 2010). Now

with the ability for one small accessory to do all these things allows for secondary vendors or

scientists to use this technology for something greater for potential benefits.

According to Craig Mundie, Microsoft's Chief Research and Strategy Officer, states that the Kinect is a "natural user interface" that, along with voice, will redefine the future of computers. Increasingly autonomous computers, Mundie suggests, the Kinect will complete tasks that humans will think too mundane. For now as Americans we control day to day activities, we get assistance from electronics or minor gadgets that help our everyday life. Microsoft believes that possibly with their invention, that over time the right scientist will in turn give it the technology to do our every day job. Another potential benefit that scientists and students have come to believe is that it can help with avoidance crash collision and robots. Bouffard, 33, is a graduate student working on ways to help computer-guided vehicles avoid collisions. Based on an article written by Casey Newton, she states that Bouffard was able to attach a Kinect to a 4 pound helicopter and could perceive objects in its path. The "quadrotor" was able to detect an object in front of it and stop in mid air. This invention alone could be a gateway to a safer America in my beliefs, if we are able to take a new accessory for a console and can make it into a helicopter avoidance machine, think of the possibilities of America's technology. The thing is if a graduate student can do this easily without Microsoft's consent, then this also opens up a path for other people to use this technology the wrong way. Now with all great things come setbacks that cause it not to be great yet. The wrong way leads to social and ethical issues of this accessory as well as the security concerns for the Kinect.

Think of how easy it is just to go buy a Kinect from the store for an average consumer. Now take that concept and apply it to a hacker. Matt Darman writer for the Telegraph wrote, "When Kinect launched, it was immediately seized upon not just by fans, but also by a community of computer scientists keen to hack into its inner workings and repurpose the device." This alone can pose as a legal issue and ethical concern. Not only can hackers over

time hack into your database but can also turn this accessory into something bizarre. After the release of the Kinect, Phillip Torrone, a designer of Make Magazines, offered a three thousand dollar cash bounty for anyone who created and released free software allowing the Kinect to be used with a computer instead of an Xbox, (Wortham, 2010).   This "contest" was given automatic thumbs down by Microsoft corporation and caused them to take a closer look into those ignoring the proper use of their product. A company rep. stateted that they are working closely with law enforcement and product safety groups to keep Kinect tamper-resistant, (Wortham, 2010). Their main focus was making sure the hackers were not degrading the experiences for the customer. This is very true as a consumer, I wouldn't want to have to worry about the possibility of a hacker hacking into my Kinect and ruining my game play. It would degrade the name of Microsoft and lessen the fun atmosphere of the game. Now the funny thing is as a consumer, the hackers are not the only problems that can affect you; Microsoft can also "hack" into your system, bringing us to the ethical and legal issues of the Kinect.

While fingers are being pointed towards hackers, consumers need to be warned that Microsoft may be taking advantage of you as well. Ms. Smith, IT writer and blogger discussed in her article that the things you say and do while using the Kinect can be used extensively. She states that "the personal information collected might be used for marketing, for tracking, or stored and is currently defined by Microsoft's Privacy Policy." As a consumer if you believe this is false, Smith goes on to discuss how Microsoft has previous history of helping law enforcement figure out user information and sacrifice privacy in favor of money. This statement shocked me as a person because I have said and or written multiple things on Xbox live or at a friend's house and did not know the ability of Microsoft.

Ms. Smith also goes on to discuss the ethical issues that Panda Security firm posted on

the Intranet. "Dear Microsoft: Please Stop Pushing Potentially Unwanted Software Through

Windows Update." For those that do not have an Xbox, think of countless spyware and adware

coming to your computer screen but of course you do not want to download the form of adware.

This is now being forced upon Microsoft users and in the article it also states that you can

uncheck the update box but Microsoft rechecks it as a default. This can be agitating as a

consumer, not having the choice of receiving updates. Another ethical issue that is faced with

the Kinect and Microsoft is the new service agreement and privacy policy. Microsoft can use the

information you use while using the Kinect for marketing research and Microsoft forced their

consumer to agree to the new service agreement and privacy policy which allowed the

distribution of your information. As a consumer I would be frustrated but these issues are some

things you really don't think about if you're not doing anything wrong on the Kinect. Even

though the Kinect can pose as a "threat" it provides social benefits to Americans.

The social benefits of the Kinect also can correlate with the potential benefits. With hope

for advancements in the technology this can also help modern America. Based on the article

written by Newton, she believes that with the Kinect, in time it will help NASA scientists

teleconference in three dimensional ways. I believe once this occurs it will be fair game to

businesses and corporation's worldwide. With the power to make communication so easy and

accessible it can make a work day go by smoother. Another benefit is the events or opportunities

for up and coming scientists that want to be acknowledged. Newton discusses in her article how,

scientists or tech geeks such as Willow Garage are sponsoring contests for the "most interesting

new use of the Kinects depth sensor with a robot." With the top entry receiving a cash

compensation of three thousand dollars. Not only can the Kinect benefit the mentally gifted, but

based on the Microsoft website, they also discuss the variety of games for the consumers. I

believe that with the selection of games that provide active movement and aerobics, it can also provide a healthier America. Now all these benefits come at a cost to some which can lead to social problems to average Americans.

The Xbox Kinect unlike the Ps3 or just the Xbox 360 requires an extra power outlet which can lead to a minor issue of compatibility. Think of the average Americans who usually set their consoles in family rooms; Family rooms already lack available outlets and this can become an inconviencence for some. Another social problem can be the cost of the Kinect. The Kinect alone costs one hundred forty nine dollars and three hundred if you include an Xbox, (Microsoft, 2010). This can be a problem for average Americans who are trying to make do with their current lifestyle. Lastly, Gruener, of ConceivablyTech discusses the social problem of the actual ability to use the Kinect. He goes on to discuss in his article, that if you have to sit down to use the Kinect, it will only work with voice recognition. This may come to a disadvantage to the heavy set Americans or disabled Americans who are confined to a wheel chair or can only sit. Gruener brought up an irony by saying, "playing a simple game while you actually sit on the couch will not work anymore." This social problem also shows the advancements technology has come too over time.

Taking all of this into account the Xbox Kinect is a must have by a consumer. The unique technical aspects along with the potential and social benefits make it a modern day America work of art. In time when Microsoft can take care of the minor security problems along with the ethical and social issues that affect some consumers it will in time make the Kinect come to fruition. The Kinect in time will lead to openings America has never seen or thought of before.

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Dadsontech, (2010). *Interview with microsoft xbox 360 kinect director Alex Kipman* [Theater]. Available from http://www.youtube.com/watch?v=x1PtZ9Vqee8

> This interview with Microsoft Xbox 360 Kinect Director Alex Kipman gave me a general overview of the goals and the kinect as a product. He gave me insight for my background and technological paragraphs. He also gave me a different source instead of general web pages.

Duddley, B. (2010, June 3). *E3: new info on microsoft's natal -- how it works, multiplayer and pc versions*. Retrieved from http://seattletimes.nwsource.com/html/technologybrierdudleysblog/2009296568_e3_new_info_on_microsofts_nata.html

> This article is based of an interview Phil Spencer, general manager of Microsoft Game Studios. He discusses the specifications and technical things of then Project Natal but what we know as Kinect. I was able to use his information to help with the technology section, to help the reader understand the technological parts of the Kinect. (February 19, 2011)

Gruener, Initials. (2010, June 17). 5 reasons why xbox 360 kinect could fail. Retrieved

fromhttp://www.conceivablytech.com/1377/products/5-reasons-why-
xbox-360-kinect-could-fai

   I used this article only for the Social problems section. I feel that the kinect is a
good   product for consumers but with all great things comes problems.   This article
discusses   the basic problems of why the Kinect could fail. (February 1, 2011)

Newton, c. (2011, January 10). Microsoft's xbox kinect beyond hackers,
   hobbyists. Sanfrancisco Chronicle , pp. D- D1.

   This article shows the potential benefits of the Kinect. It discusses the
possibilities of taking this accessory and making it into something more. It also
acknowledges that there are   hackers using this product but there are also hobbyists who
are using it for good and trying to   advance technology.

Microsoft. (2011). Kinect . Retrieved from http://www.xbox.com:80/en-
   US/Kinect/

   I thought this would be the best place to get information because it is the
corporate website but the information was very limited. It provided enough information
to get a general sense of what the company wanted the public to see but viewing other
sites I got a better sense. This source provided a good starting point for my paper.
(February 1, 2011)

Smith, M. (2010, October 10). Kinect long term privacy issues daunting
   [Web log message]. Retrieved from
   http://www.networkworld.com/community/blog/kinect-long-term-
   privacy-issues-daunting

This blog/article discusses the ethical and privacy issues with Microsoft and the Kinect. It helps me bring up point for my paper that can satisfy that requirement and also can help me touch based on the security concerns section. The article provides current issues and backs it up with previous issues.

Warman , M. (2010, October 25). Xbox kinect foretells computers of the future. The Telegraph

This article shows the potential benefits of the Kinect. It discusses the possibilities of taking this accessory and making it into something more. One of the chief directors of Microsoft discusses how it can be used for future computer robots and that it will soon lead to robots doing jobs so mundane that humans wouldn't do.

Wortham, J. (2010, November 22). With kinect controller, hackers take liberties. The New York Times, p. B1.

This article discusses the social and ethical issues that some hackers are portraying. Also the article discusses how hackers are using the Kinect for inappropriate use. This can also be used as supplementary information for the security concerns and how it is easy for scientists to hack into possibly your Kinect.