**A Technical Seminar Report**

**on**

**3D INTERNET**

Submitted in partial fulfillment of the

requirements for the award of the degree

**Bachelor of Technology**

**in**

**Information Technology**

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**CERTIFICATE**

This is to certify that the technical seminar entitled **“3d Internet”** has been presented by **J.Neelima 15WJ1A1219** in partial fulfillment of the requirements for the award degree of **Bachelor of Technology** in**Information Technology**from **Jawaharlal Nehru Technological University Hyderabad**.

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3D INTERNET



**1.ABSTRACT**

**Internet today has become an integral part of our lives.Wide Web which started A small dull data repository has now become massive and irreplaceable. Present activities being partially or completely linked with the virtual world can be optimized to a higher level. Every activity associated with our daily life is mapped and related to some entity in the digital world.The world has seen vast advancements in Internet and in 3D stereoscopic displays. Time has come merge the two to deliver a new level of experience to the users. 3D Internet is an idea which is yet to be implemented and requires browsers having the property of depth perception and artificial intelligence. If this property is incorporated then the idea of Internet of thin**

**The World Wide Web, which has started as a document repository, is rapidly transforming to a full ?edged virtual environment that facilitates services, interaction, and communication. Under this light, the Semantic Web and Web 2.0 movements can be seen as intermediate steps of a natural evolution towards a new paradigm, the 3D Internet. We provide an overview of the concept 3D Internet and discuss why it is a goal worth pursuing, what it does entail, and how one can realize it. Our goal in this paper is to discuss a research agenda and raise interest in networking, security, distributed computing, and machine learning communities. We explore ?rst the motivation for the 3D Internet and the possibilities it brings. Subsequently, we investigate the speci?c system level and research challenges that need to be addressed in order to make the 3D Internet a reality.**

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**INTRODUCTION**

**3D Internet, also known as virtual worlds, is a powerful new way for you to reach consumers, business customers, co-workers, partners, and students.**

**People who take part in virtual worlds stay online longer with a heightened level of interest. To take advantage of that interest, diverse businesses and organizations have claimed an early stake in this fast-growing market.**

**They include technology leaders such as IBM, Microsoft, and Cisco, companies such as BMW, Toyota, Circuit City and Coca Cola.**

**3D worlds also hold benefits beyond simple social interactions. Companies that specialize in interior design or furniture showrooms, where users want to view entire rooms from a variety of angles and perspectives, will be able to offer customized models through users' *homePCs*. Google representatives report that the company Google is preparing a new revolutionary product called Google Goggles, an interactive visor that will present Internet content in three dimensions. Apparently the recent rumors of a Google phone**

**The success of 3D communities and mapping applications, combined with the falling costs of producing 3D environments, are leading some analysts to predict that a dramatic shift is taking place in the way people see and navigate the Internet.The appeal of 3D worlds to consumers and vendors lies in the level of immersion that the programs offer.**

**The experience of interacting with another character in a 3D environment, as opposed to a screen name or a flat image, adds new appeal to the act of socializing on the Internet.Advertisements in Microsoft's Virtual Earth *3D mapping*application are placed as billboards and signs on top of buildings, blendingin with the application's urbanlandscapes.**

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On the other hand, metaverses or virtual worlds such as Second Life (SL) or World of Warcraft (WoW) are much younger when compared to other Web technologies. Today, the success and momentum of virtual worlds are undeniable. The market for MMOGs is estimated to be worth more than one billion US dollars and such metaverses are fast becoming ?significant platforms? in the converged media world according to some analysts. Virtual worlds are increasingly seen as more than game and interpreted within a business context rather than entertainment. The view that metaverses will play a significant role in the future is shared by many researchers and professionals in the field. Among them are the participants of the metaverse roadmap ?who aim to explore multiple pathways to the 3D enhanced web , the Croquet Consortium ?as well as ?the VRML and X3D communities.

We envision a 3D Internet which will be to 2D graphical user interface (GUI) and Web of today what 2D GUI and World Wide Web (WWW) were to command line interface (CLI) and gopher two decades ago. While the concept seems incremental in the sense that it merely adds 3D graphics to the current Web, it is in fact revolutionary for it provides a complete virtual environment that facilitates services, interaction, and communication. From this perspective, the 3D Internet can be seen as the evolutionary end point of ongoing efforts such as Web 2.0 and Semantic?

Web.  
A phrase coined in 2004 by O?Reilly Media Group; refers to a perceived or proposed second generation of Internet-based services such as Social Networking sites, Wikis etc - that emphasize Online Collaboration & sharing among users The Participatory Web. It marks the progression from static????? web pages to dynamic, interactive ones, Read/write web Sharing, collaboration, & user ?involvement, Reviews Comment on news stories,Upload photos, Share digital videos.The average person can put their work on the web? ex.? Photographers, journalists,aspiring writers, students, etc.The Social Web Social networking and community-? oriented sites ?ex.? myspace.com, friendster.com, facebook.com, multiply.com, tagged.com, twitter,com, etc.

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The user needs are catered:? participate, organize, read, write & play? online   
Web 2.0 is focused on people, the Semantic Web is focused on machines. The Web requires a human operator, using computer systems to perform the tasks required to find, search and aggregate its information. It's impossible for a computer to do these tasks without human guidance because Web pages are specifically designed for human readers. The Semantic Web is a project that aims to change that by presenting Web page data in such a way that it is understood by computers, enabling machines to do the searching, aggregating and combining of the Web's information ? without a human operator.

Our objective in this paper is to define the 3D Internet concept and discuss why it is a goal worth pursuing, what it does entail, and how one can realize it. Along with its enormous potential the 3D Internet also opens many research challenges in order to become a reality. Metaverses have recently caught the attention of gaming, advertisement, 3D design, and performing arts communities among others. However, it is difficult to claim that the same level of interest has been raised in the areas of networking, machine learning, and distributed computing. Without overcoming these engineering challenges and making a business case to stakeholders the 3D Internet is destined to be an academic exercise and remain in the realm of science fiction; a fate experienced by many initially promising concepts such as artificial intelligence or virtual reality. We discuss in the next section why stakeholders such as communication and computing companies, research institutions, and online businesses should be interested and participate in the 3D Internet.

In Section 3, we present an example architecture as a starting point for the 3D Internet. Section 4 summarizes the engineering challenges and explores research directions in various fields.

**What is 3D Internet?**

3D Internet is the next generation after the current 2d web.3D Internet consists of interconnected services, presented as virtual worlds.

Imagine a set-up of interconnected virtual worlds inhabited by users who can visit and consume services through "teleporting" from one world to another.

3D Internet will rely on the same basic technology and components as that of a traditional browser, and it will interact with the same search engines and servers. Aside from the use of 3D computer graphics and personalized avatars, the important difference lies in a much more social experience compared to the two-dimensional Internet of today.

3D Internet is incredibly social. If you're reading a document, you can see other people reading the same document. You connect organically with other people that share your interests and consume the same services that you do

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**II.3D INTERNET: WHY?**

One of the often heard arguments against the 3D Internet is in the form of the question ?why do we need it?? For most of its users the Internet is a familiar, comfortable medium where we communicate with each other, get our news, shop, pay our bills, and more. We are indeed so much used to and dependend on its existence that we don?t think about its nature anymore just like we do not think about Ohm?s law when we turn on the lights. From this perspective what we have, i.e. the 2D version, seems ?sufficient? and the 3D Internet is yet another fad.

However, if we stop and think about the nature of the Internet for a moment we realize that it is nothing but a virtual environment (cyberspace) where people and organizations interact with each other and exchange information. Once this fact is well understood, the question can be turned on its head and becomes ?why do we restrict ourselves to 2D pages and hyperlinks for all these activities??   
Navigating hierarchical data structures is often cumbersome for ?large data sets. Unfortunately, the Internet as we know is organized as a flat abstract mesh of interconnected hierarchcal documents. A typical 2D website is an extremely abstract entity and consists of nothing but a bunch of documents and pictures. Within the website, at every level of the interaction, the developers have to provide the user immediate navigational help.

Otherwise, the user would get lost sooner or later. Since this is a very abstract environment, there is no straightforward way of providing a navigation scheme which would be immediately recognizable to human beings. The situation is not any better when traveling between websites.

Although the domain name system is somewhat helpful, using the web today is no different than reading a telephone directory. Given the current situation the term web surfing is rather appropriate as we have no control over where the web takes us with the next click. This has profound implications such as the reliance on back button in browsers which tantamounts to admitting that navigating on the web is no different from a random walk. Another consequence is the emergence of search engines as a fundamental element of the Internet. It is no surprise that Google is the most powerful Internet company of ourtimes.

There is actually a much better alternative way of organizing data which everybody knows and uses. We spend all our lives in a 3D world navigating between places and organizing objects spatially. We rarely need search engines to find what we are looking for and our brains are naturally adept at remembering spatial relationships. Let us consider the following fictitious scenario on the 3D Internet.

Instead of a flat 2D desktop I can put my documents on my desk at home, where documents, desk, and home are ?virtual? entities that are 3D representations of real-world counterparts with spatial relationships. Later, when the need of finding these documents arises, there is a high probability that I can easily remember their location without resorting to additional processes such as search engines or a ?recent documents? folder.

Obviously, it is very difficult -if not impossible- to realize this scenario on the current Internet. We are there like 2D creatures living on flat documents not knowing where we are or what is next to us. We teleport constantly from one flat surface to another, each time getting lost, each time asking for directions or help. In contrast, the ease of use and intuitiveness of 3D GUIs are an immediate consequence of the way our brains work, a result of a long evolutionary process ensuring adaptation to our world.

Although the 3D Internet is not a solution to all problems, it provides an HCI framework that can decrease mental load and open doors to rich, innovative interface designs through spatial relationships. Another important point is the Webplace metaphore of the 3D Internet which enables interaction between people in a natural way. In this sense, the 3D Internet can be seen as a natural successor of Web 2.0.

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**Need of 3D Internet**

To most of the 3D users, the 3D internet seems very comforting for all their necessary works and everyone is dependent on its circumstances that they forgot to think about its nature anymore just as we don’t think about the ohm’s law whenever we switch on the light. From this point of view, what we have today is the 2D version and the 3D internet is the next level of it. Well, if we stop for a while and think about the nature of internet then it is nothing but a real environment where people exchange the information and communicate with each other.

For all these activities people are confined to the 2D pages and it is based on flat principles or theories and consist of a group of documents, images. Whenever a user enters the website then at every flat surface of communication the developers need to provide the conducting and managing help, if not then the user might get lost soon. As it is based on the flat principles there is no chance of providing a direct managing and conducting help which recognizes the human beings, this kind of situation is even worse when moving between the websites.

An example, of the current situation of web surfing, is perfect because we have no power over the web and it’s traveling with the next click. Another effect or result of it is the necessity of search engine and there is nothing astonishing in describing Google as the power internet company. There is much better way of arranging data which everyone knows and everyone uses it too, we spend our lives in a 3D world by managing, conducting and moving between places, representing the objects and where we rarely use the search engines.

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HOW 3D INTERNET WORKS

The 3D internet is based on the following features or parameters:

* Networking or distributed computing
* Intelligent environment

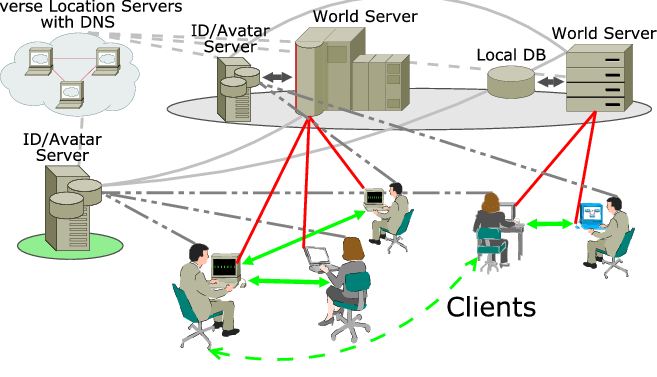
1. **Networking or distributed computing:** A point of fact is that avatars have more data or information about the user who visits a 3D world than cookies do about a 2D website visitor. For example, avatars contain information about the appearance of visitor or behavior of a visitor
2. **Latency minimization:** Latency which is observed by the clients when they are involving in communication with the servers is minimized. It proposed a hybrid peer-to-peer communication and server independent peer-to-peer communication.
3. **Security and trust:** There is a group of alternatives for transporting authentication of users and avatars. Systems like ‘Microsoft Passport’ and many other are developed based on this.
4. **Intelligent Environment:** They give the extra stress on user-friendly and efficient service support. The intelligent environment also consists of intelligent services, intelligent agents, and rendering.

* Sing available virtual platforms i.e. Second Life.
* By using artificial intelligence.
* Using 3d eyewear like Google Glass

.

* Implementing Sixth-Sense technology.
* Using sensors and holographic image projections

Architecture of 3D Internet



Working Architecture of 3D Internet

The visual system provides server-side created both static and dynamic content designing up some specific web source (3D environment) involving avatar data, visuals, physics engine, and median and mostly to client programs.

A system server has an essential duty of coordinating the co co-existence of related users. Establishing communication with them and by ensuring in-world uniformity in real-time.

A virtual identity organizing system containing avatar information and identity and also an inventory of connected users, which provides this system to individual world servers and specific client programs during ensuring security and privacy of available information.

The universe location servers include current [DNS server](https://www.lifewire.com/what-is-a-dns-server-817513) availing virtual graphical data as well as provides connection to the methods. This server also works as the distributed directory for the world within network, users and avatar servers.

World servers :

It Provides the user or administrator formed, fixed and active contented which makes unambiguous website place (3Dimensional atmosphere) that has imagining, physics related machine, avatar’s informaton funding, hypermedia, providing many other features to the client and server sequencers. the worldwide servers have a imperative task of harmonizing actuality with the users that are connected, starting to communicate within themselves, which ensures space in consistency in realistic machines. These are also used to give various other services such as mails, immediate memorandum, uploading, downloading fast and more.

Avatar/ID servers:

Computer-generated individuality running systems encompassing identity and avatar material as well as account of enumerated employers these all provide an environment in which the information of the world servers and the individual servers are having privacy and security.

Universal Location Server:

The systems which are used for virtual management that are same as the (DNS),these DNS are used to provide the information regarding virtual geography The (ULS) can also facilitate as a distributor of id servers and the user.

Clients:

Programs running on the user system like a browser which needs a caching , network and a3 dimensional functions to run in the system. There are some additional software’s which are needed to support 3dimensional functions such as editing software’s and placing websites in client system. It is expected that discovery of new tool and software development kits will overcome this problem.

HISTORY OF 3D INTERNET

In 1995 the Virtual Reality Markup Language (VRML) came to existence. The attraction of 3Dimensional was small;, hence all focuses were to generalized net html. Vrml (Virtual Reality Model Lang ageing) was deployed versions of the Virtual Reality Markup Language in 1995. The first Vrml version was achieved in November 1994. The complete version is Vrml97, which was the latest version of this language. Vrml was latest and much emphasized for 3Dimensional on net. The reasons for this might been the lacking of availability band width for users at sometimes.

In the era of 2000 many wanted to improve the quality level of virtualization effects in Vrml. it is also required to look to the level of DirectX 9.0. But that was having its own solutions. The Vrml has been outdated by the normal X3Dimensional, molded by the Web3Dimensional group. The X3Dimensional was acknowledged as worldwide normal by ISO.

We have a new 3Dimensional on Internet ordinary. X3Dimension is the file format for 3Dimensional computer graphics. The X3Dimensinal has the addition \*.x3d, \*.x3db, \*.x3dv. The X3Dimensional sustenance multi stage / touch condense. It supports shader with lightmap and normal map.

Newest form of X3Dimensional allows real time atmosphere and echo towards lighting. The X3Dimensional can also use content from other opens source terminologies like Xml, Dom and XPath

This segment states the different stages the Internet has gone through. Web 1.0, 2.0 and 3.0 are the three sections which describe the development and improvement of Internet over the ages .

Web 1.0

This was the first model of Internet. People could only read content online provided by a small number of developers. Users couldn’t upload or provide their content to other peers at this stage. This can be simply termed as “read only” form of Internet. Web 1.0 had many limitations and restrictions which had been fixed later by web 2.0.

Web 2.0

Early web could only be used to retrieve information from the \*Corresponding author: Gireesh Singh Thakurathi, Computer department, Thadomal Shahani Engineering College, Mumbai, India, Tel: 022 2649 5808; E-mail: gireeshst@yahoo.com Received October 25, 2015; Accepted December 04, 2015; Published December 25, 2015 Citation: Thomas M, Thakurathi GS, Savlani H, Sankhe V (2015) 3D Internet. J Inform Tech Softw Eng 6: 163. doi:10.4172/2165-7866.1000163 Copyright: © 2015 Thomas M, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Internet but with the introduction of web 2.0 users could upload their content as well. Internet finally gave users the opportunity to provide their individual contributions to the world. Social networking sites like Orkut and Facebook began at this stage. People could now add their profiles to such websites. Blogs and forums were now a common part of the digital world.

Web 3.0

Web 3.0 is not yet fully developed. In the above two versions of web, information was mainly generated by people. In web 3.0 raw data is processed and converted to information by the Internet itself. It will provide the users with related suggestions and recommendations based on their Internet activities that will be useful to the user. Web 3.0 comprises of online integrated gaming.It is basically a real time creative web.

Challenges In 3D Internet

1.Platform performance:

FP is intensively client/server, Const. bandwidth and Low latency. Thus, the link has to be premeditated competently to overwhelmed these trials of low dormancy due to high graphic software. The use of PC with 20X GPU and 3XCPU can increase the performance.

2. User created contents (UCC):

Portability over world, is to Easy-to-use tools, Realistic rendering. This is online content that has to be created by an Internet user. Tools are must to be provided to create this content. They must produce tools for content creation and enhancement free. Site like one of the YouTube allows its user to distribute their material in different ways that were impossible previous decade. Some virtual sites give users chance to modify individual oriented data and might stop the amount that can be environmentally directed. Each world would have a value associated with single style of data. There are also various revenue styles. constraints in the early stages. Wunsch-Vincent and Vickery (2007) define UCC is defined as: happy made public obtainable across the net, which replicates a imperfect sum of creative effort and which is fashioned universally professional daily repetitive and exercise. While measuring is in its beginning, availability of data show that broadband users products and shares contented at a high speed rate, and this is mostly huge for younger age people . Giving strong network construction effects a few platforms draw large value of delay, and online video sites and social system sites are emerging to be the most popular websites worldwide INTERNATIONAL JOURNAL OF TECHNOLOGY ENHANCEMENTS AND EMERGING ENGINEERING RESEARCH, VOL 2, ISSUE 6 131 ISSN 2347-4289 Copyright © 2014 IJTEEE.

3. Simulation services:

Dense avatar measures, diverse client styles, Unified graphics or physics. Simulation service can be carried out on server side or client side. Tools and models must be accepted on

4..Ecosystems:

Stimulation standards, such as 3D browser standards, Identity are opposite. Capacity to delivery of unified and intuitive user experience over many devices such as High Definition TV, tablets and more

5 The management of multilevel identities:

Identity managing is basic so that while on numerous virtual world the individual has the similar identity and can be verified. In this concept, conditions and aspect of self are incrementally externalized as divided into both 2Dimensional and 3Dimensional digital personalities reflecting any number of combination of now malleable aspects of race, sex ,dob, body type, personality and physic.

6.Monetizing of virtual assets:

Each virtual world now has their own money system. Second life renders Dollar. In the same way that web application like e-Bay and Amazon net has their own currency system, services. The ogoglio used services won’t be a slightly bounded as the Second Life's grid, so there is not going to be a one company which can control a payment or exchange.

7. Applicable rules or privatization of “digital avatars”:

One of the main values of most popular in the report based around the effects of technology and modern society, is security. Private things is seen as a basic human right in all western democratic countries, and is often argued to be a essential condition for using of other human rights. Many of them relate controls to be private: The individual control over who have access to the personal live and info. Control across interactions with others, Control across handling one personal information, against surviving and observing, and a physical control over one personal world. A main characteristic of Second Life's is anonym, which enable user to distinguish their online, in the world identity (their avatars) from their offline identity. Many user states that they are feeling like their Second Life identities are not identical, and even significant different from their "real life" identities. In this aspect Second Life differ from social network which needs user to login and use their general names and identifications.

8. Speed:

The connection speed in internet is one of the meant glitches which are often confronted by the 3Dimensional net technology. Many republics all around the earth are trying to meet the demand of the net rapidity speed, which are needed for 3Dimensional net. With their introduction of 3rd Generation, 4th Generation etc., there is an increase in speed measured always 3-G is the 3rd generalization of telecommunication typical and for mobile schmoozing. 3rd Cohort influences are wide arena mobile network that emerged to provide good net access speed and video telephony technology. The expectations from the 3rdGenerationis that it will deliver high broadcast speed, the smallest rate of 2Megabit/seconds and all of 14.4Megebit/seconds for motionless consumers , whereas 348 Kilobit/seconds for a car, which is in motion. Thus, with announcing of 3rd Generation technology, the speed rate operations included with the 3Dimensional net will be suppressed earlier.

9. Visualization and Interfaces:

First access to 3Dimensoinal net is the problem of visualization and interfacing. Devices that can be used to perform such a aim includes PET's , basically known as cell phones and PARTS'. PET's are able of creating holographic imagery, and permissive the visualization of 3Dimensional images and videos. PARTS's make up an advanced versions of today’s multimedia vision glass, making it to view 3Dimensional imagery and even involving them in the practical worl

Technical Necessities and Obstacles

Along with the benefits, obstacles such as present network speed, hardware limitations and cost factors also come with 3D Internet. These hurdles obstruct the evolution of traditional Internet to 3D Internet .

Internet speed

Internet Speed is one of the major obstacles for the full implementation of 3D Internet. These are in terms of limitation of bandwidth. As 3D Internet requires high end graphics and models, the requirement of high bandwidth is mandatory. The report by “Akamai Technologies” named as the state of the Internet in 2015 shows that the world average Internet speed is 5.1 M bit/s . This report shows that there are very few countries with high speed Internet while others lack the necessary speed for 3D Internet. Thus even though some countries do have good speed, most of them can’t support 3D Internet. Due to which complete implementation of this technology is difficult.

Hardware

The current Internet which we use is 2D thus it requires a normal screen. When we move from 2D to 3D Internet, we will also have to move from our traditional screens to ones that are compatible to render 3D graphics. We will also require separate tools to view these 3D images. Moreover rendering of such high end models requires high

usage of RAM and GPU. Thus upgrading to this technology requires an overall upgrade of the present system around the world.

Cost

As we see in above two points, it can be concluded that the cost involved in the overall implementation is high, which may discourage the masses.

Solutions

Speed

Presently, India ranks 130th in providing broadband connections. The answer to the average broadband Internet speed problem is Google Fiber [8]. Google Fiber provides a lightning speed of 1 gigabit per second (1,000 Mbit/s) which is about 100 times faster that the current speeds. It has already laid its roots in some cities with a vision of expanding worldwide .

Hardware

The best solution to hardware implications is to use a Vision Station. Vision Station provides a 180 degrees ultra wide view of 3D visual world, providing a terrific 3D experience over the Internet at a cost much lower than the multi- projector systems and other hardware devices implementing 3D graphics

Applications

The world is moving into a digital era. Our day to day activities are getting digitalized and Internet is at the center of everything. A few possible applications of modernizing the current Internet to 3D Internet have been listed below.

Education:

By implementing 3D Internet in education, people can have a better understanding of the subject. They can view lectures and experiments in a 3D manner that will help them learn more efficiently than the traditional approach. One such example can be that the Medical professionals can view operations in 3 dimension, distance education will be valued, illustrative and demonstrative tutorials shall be more effective.

Real estate:

3D Internet can drastically change the real estate industry. Customers can view the property they are interested in online with a stereoscopic view. They will get a basic idea of the area and locality they are going live in even before its complete construction. This will ease the selection process of property to a great extent.

Social interaction:

The current generation has a much more active online social life as compared to real life. Addition of 3D to social networking can revolutionize our digital world. Video calls can be more interactive and appealing. 3D chat spaces can be introduced to social media. Personal interaction won’t be limited to real world. People unable to meet on regular basis can interact online.

Tourism:

It is important to choose the right destination to spend holidays which can be much easier after the implementation of 3D Internet. Tourists can have a sample 3D view of the desired locations and later decide which destination has to be visited. They can have a short demo of the place they are about to visit and decide if its worth investing on the trip.

Entertainment:

Online 3D games, 3D movies, etc., won’t be a dream anymore. All this can be achieved using 3D Internet. Users won’t be compelled to go to a multiplex for experiencing a 3D movie. Gamers can enjoy 3D online games at home and can easily connect with their friends. Live action sports will be more interesting.

E-commerc :

Online Shopping can be more realistic and reliable with the employment of 3D Internet. Concept like Online Shopping Malls and Stores can be implemented so that the users can visit virtual malls from Internet. Vicarious feeling of shopping can be fulfilled by consumers by sitting at home. It will be a benefit to both, the buyer and the seller as the basic necessity to meet at a common trading place will be eliminated completely while the shopping experience will remain intact.

Spiritualism:

People can visit their desired holy place without actually traveling to the destination. Religious organizations can plan meetings at a selected time covering devotees of a specified region and 3D Internet will maintain the experience of the trip and cut the cost and traveling time on the other hand. 3D avatars and first person view will make it easy for users to devote time to their religion.

Culture :

3D Internet will open gates to art forms that don’t exist at today’s date. Artists can portray their artwork to the whole world in a entirely new fashion. Just as 2D art has a ton of different forms such as paintings, drawings, photography, mixed media, craft, etc. 3D art will also create a new genre of creative forms, something that can’t be imagined as of now due to the absence of a 3D platform and human brain’s limited scope to 2D imagination.

Religion:

Religious organizations can make use of the 3D Internet to open virtual meeting places within specified locations.

Embassies :

We could create embassies in 3D Internet, where visitors will be able to talk faceto-face with a computer-generated ambassador about visas, trade and other issues.

Live sport entertainment :

Popular forms of live entertainment could also be placed into the 3D Internet. Many sports allow the users to watch or participate in many popular activities. Sporting leagues like Cricket, Football, Professional Wrestling, boxing, and auto racing could be placed in the 3D Internet for it’s users to play in the 3D environment.

Arts:

The modeling in 3D Internet would allow the artists to create new forms of art, that in many ways are not possible in real life due to physical constraints or high associated costs. In 3D Internet artists could display their works to an audience across the world. This has created an entire artistic culture on its own where many residents who buy or build homes can shop for artwork to place there. Gallery openingeven allow art patrons to "meet" and socialize with the artist responsible for the artwork and has even led to many real life sales. Live music performances could also be enabled in the 3D Internet.

3D Internet Technology and Components

* Though the technology and components used for 3D internet are same as used in traditional internet also it interacts with the same servers and search engines. But being more social 3D internet is different from traditional 2D internet.
* The wonderful thing about 3D internet is that participants learn as much from each other as from talking to any official source of information. 3D internet search is also as advanced as it opens a vast array of possibilities when it comes to search and browse data.
* Through 3D internet multi users can read the same documents. You connect organically with other people that share your interests and access the same service as other use. People can also watch online 3D movies via internet with no buffering time.
* 3D internet also offers other facilities like virtual meetings, support groups, academics, training chats and shopping.

Advantages

Every aspect of human life is now linked with the digital world or 2D Internet. Businessmen and potential investors can use this as their advantage to attract more consumers or visitors to market their Figure 3: Internet Speeds in 2015. Volume 6 • Issue 1 • 1000163 J Inform Tech Softw Eng ISSN: 2165-7866 JITSE, an open access journal Citation: Thomas M, Thakurathi GS, Savlani H, Sankhe V (2015) 3D Internet. J Inform Tech Softw Eng 6: 163. doi:10.4172/2165-7866.1000163 Page 4 of 6 products. By adding 3D effects to the normal web, we can increase the productivity of various fields.

Participants experience virtual world :

Several virtual world environments have already been produced where users can experience a false but appealing reality. This experience can be improved tremendously with advanced hardware which can produce 3D outputs. This entire process translates to experiencing a virtual world having its own applications such as social interaction, education, entertainment in actual 3D just like our day to day activities instead of 2D.

Participant have control over entire virtual space :

3D Internet allows the user to enter into a virtual space which enables him to interact with several others. This virtual space can be completely controlled by the user accessing it. This includes the movement of the user, changes of directions, entering/exiting structures etc.

Participants can choose to engage with an offering :

The user has a choice of accepting or rejecting the communication or interaction requests that are offered in this virtual world.

Better understanding of concepts

3D Internet provides a platform for improving the understanding of several concepts. Certain concepts cant be understood directly from 2D monitors as they require visualization of 3D objects. 3D Internet provides a way for teaching and learning such concepts.

Replicates real life:

3D Internet provides the user an experience which is very similar to real life. Users will experience real life situations in this virtual world. Avatars will play a key role in revolutionizing the future Internet. It will change the way in which people tend to interact with each other. Conversations, rendezvous and other private meetings will move from real world to virtual as it will be more promising, secure and private.

Efficiency:

3D Internet when implemented can improve the overall efficiency by reducing the mouse movements. People would no longer have to manually enter data via keyboard and other time consuming input devices.

Glimpse into 3D Virtual World:

3D Internet is yet to achieve it’s full potential but virtual world’s like “Second Life” have made an attempt to avail 3D features to traditional Internet. Second life is a 3D world created by Linden Lab where everyone the user meets is a real person and every place the user visits is created by developers [10]. The platform also provides users with Oculus Rift which helps the user experience the 3D effect. Using this hardware, the user can enjoy a full panoramic view of the virtual world. It has features like head tracking and motion sensing, users no longer suffer from 2D boxed visions on their regular LED/ LCD displays. Linden Lab has taken care that their stereoscopic view of second life doesn’t leave the users with motion sickness, thanks to the motion tracking features and fast response to minute movements. Users can choose between first person and third person view. First person view will make the experience more realistic as people can see the world from their avatar’s perspective.

**Disadvantages:**

Along with the advantages, it has the disadvantages like:

* It increases for hackers to commit frauds and launch virus attacks.
* The risk of online scams is also increased.

However, the 3d internet is necessary and vital to start and continue.

**PROBLEM STATEMENT**

Getting a glimpse of the next generation internet and knowing its seamless power.

**WEB 1.0:**

* First face of the World Wide Web.
* Edited only by webmasters.
* Similar to a hand-written notebook.
* Threatened to paranoid perception.

**WEB 2.0:**

* Everyone can contribute to the web.
* Rich user interface and best in class graphics.
* 85% majority websites in web 2.0.
* Change is inevitable.

**WEB 3.0:**

* Use of metaverse in web technology.
* The rise of intelligent systems.
* Birth of the most awaited future internet.
* Webpages

Conclusion

In this paper we have discussed the general idea, history, future prospects, current status, benefits, implementation methods and restrictions involved in revolutionizing the present quality of Internet. We can see that 3D Internet is the future as it will surely change the way we perceive Internet today. The advantages and applications clearly surpass the cost associated with the implementation. The need of a ubiquitous and intelligent Internet can surely be fulfilled by 3D Internet. Businessmen and interested investors are aware of the true potential of the user friendly, interactive, productive and addictive market side of it. But due to many obstacles like Internet bandwidth, hardware, cost factors and lack of research it isn’t easy to implement. At this point the society has the capability to evolve the digital world to a much more versatile and intriguing version but it does need a lot of research and the required financial support for becoming a reality.

Future scope of 3D Internet

3D Internet allow participants to have control over the virtual space and its content is readily available, so the users have a choice in whether to interact with an offering.

It can be implemented in various fields such as [E-commerce](http://searchcio.techtarget.com/definition/e-commerce), Product visualization 3D virtual shops, Interact in virtual and much more. So there is no doubt that it has a global future and it will easily replace the present trending of Internet.

3D Internet is a much better way of organizing data that provides an instant consequence of the way our brain works.

Its web-place allows interaction between humans in a natural manner. It is extremely useful in interactive online business and other different fields such as real estate, fashion, distance learning, medical science, gaming, learning, and tourism etc. using [HCI paradigms](http://searchsoftwarequality.techtarget.com/).

It works with involving the latest technologies such as virtual platform, Artificial Intelligence, eyewear like Google glass, holographic image projection, and sensors. In future, it has a capability to attract a highly motivated audience.

3D Internet is a jump ahead to the future of Internet that could support for not only as metaverse, however, will change the way we perceive Internet of today.

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