

it could be assumed that the profit model could be through the subscription fees paid by the students.

### **2.11. Learning Law through Second Life**

According to this study, the present teaching method for law education in the Australia is traditional one. Legal doctrines and policies are transmitted to students from lecturers in the traditional lecture room method at present. The programs embedded into this research facilitate a flexible learning mode for students where they could utilize these facilities to learn on their own independence. The purpose of this model is to model is to facilitate law education. The place of interaction is the second life based platform dedicated for this purpose. The platform of interaction is the second life based virtual world platform. The population consists of law students where the profit model could be through subscription fees.

### **2.12. Learning and Corporation through Virtual Worlds**

Pelet *et al.*, (2011) explores on enhancing learning and corporation through digital Virtual Worlds. The paper focused on developing a second life based virtual classroom for students. The paper explains an experiment conducted on using second life as a teaching tool. It tests the feasibility of implementing Second Life in the classroom by using 168 non expert students as samples for this study. As an obvious bottleneck, non-expert students need to be trained on second life before being experimented in the second life based classroom. The study is profitable and could make potential contributions to the body of knowledge. However, there are obvious limitations observed with this study. Firstly, the experimentation was conducted for a very short time. Students were observed to be feeling frustrated in the studies due to the short period of time length used for collecting the samples.

### **2.13. Virtual Reality in Tourism Development**

Steuer (1993) argues that ‘presence’ and ‘telepresence’ as the underlying conceptual elements of virtual reality. Particularly the sense of being in an environment is the main requirement, which could be generated by natural or mediated means. Cheong (1995) defines virtual reality as “a computer mediated sensory experience that serves to facilitate access into dimensions that differ from our own”. However, the above definition does not have an operational level focus, but more of an abstract level statement. On the other hand, there are certain constraints involved in creating a computer mediated sensory experience. In particular, there are certain technological constraints involved in developing a system which could generate experience to satisfy all five senses. Although it is possible through the state of the art virtual reality studies, it is a challenge to implement such a system in emerging countries due to the infrastructural constraints involved. Particularly, the organizations in the emerging countries would not be able to afford huge amount of money on a virtual reality system, while there are several other priorities to be addressed while making investment decisions in tourism development. Pizam (2009) indicates that the global financial crisis has immensely impacted the global travel industry. Hence, there are certain financial constraints

According to Reddit user u/normal\_rc, electrum's wallet was hacked and nearly 250 bitcoins (243.6 BTCs, nearly \$1 million) were maliciously stolen, according to coinelegraph. Electrum then confirmed that the attack included creating a fake version of the wallet to trick users into providing password information. Electrum responded on Twitter that "this is a persistent phishing attack on Electrum users" and warned users not to download Electrum from any source other than the official website. Star Daily News Bitcoin Wallet Electrum official Twitter announced that the next version of Electrum will support Lightning online payments. Its lightning node implementation has been consolidated into the main branch of Electrum. Electrum also confirmed that the wallet will adopt a new implementation of in-house development written using Python. (Cointelegraph)

January 19 (Xinhua) -- Electrum is a world-renowned Bitcoin light wallet with a long history of supporting multi-signatures and a very broad user base, many of which like to use Electrum as a cold wallet or multi-signature wallet for Bitcoin or even USD (Omni), according to the Slow Fog Security team. Based on this usage scenario, Electrum is used less frequently on the user's computer. The current version of Electrum is 3.3.8, and previous versions of 3.3.4 are known to have "message defects" that allow an attacker to send an "update prompt" through a malicious ElectrumX server. This "update tip" is very confusing to the user, and if you follow the prompt to download the so-called new version of Electrum, you may be tricked. According to user feedback, because of this attack, stolen bitcoins are in the four digits or more.

The Healthy Security

Lab is concerned that Nearly 250 bitcoins have been stolen in a recent hacking attack on an Electrum wallet. This attack, confirmed by Electrum, involves creating a fake version of the wallet to trick users into providing password information. Electrum responded on Twitter that "this is an ongoing phishing attack on Electrum users and advised users to download wallet apps from the official website" and that The Healthy Security Lab advised users not to install an unknown source of Electrum wallets to avoid being tricked.

**B: Electrum server can customize messages to appear in the user's electrum light wallet software, giving hackers a chance to broadcast phishing messages.**

When Electrum wallets are synchronized with malicious servers, they are instructed to "update" clients provided by hackers, resulting in the loss of assets contained in older versions. Previously, in December 2018, Electrum.

Electrum-GRS Developer: Kefkious - Tyler from the United States.

This isn't the first time Thatectrum has appeared in a fake version, with hackers developing a fake encrypted wallet, Electrum, in December, resulting in the theft of nearly 250 bitcoins worth about \$1 million. In January, GitHub discovered a fake Electrum wallet called "Electrum" designed to steal users' money. In February, users of encrypted wallets Electrum and MyEtherWallet reported that they were facing phishing attacks. (Stationer's House)

The fact that not many people know is that Esplora is bundled with a based and optimized Electrum server. This Electrum server is derived from Electrs and is now maintained separately by the Blockstream engineering team. Over the past two years, Esplora has become one of the fastest and most scalabl

e Electrum server solutions available for Bitcoin due to continuous updates and performance optimization.

Esplora is also the only Electrum server that supports liquid networks.

Electrum tweeted today about the incident, saying it was "a persistent phishing attack on Electrum users" and imploring users to check the effectiveness of the resources they log on to.

Bitcoin Wallet Electrum confirms a phishing attack against its users, reminding them not to download Electrum Wallet software from any channel other than the official website. Earlier media reports said Electrum users had maliciously stolen millions of dollars worth of cryptocurrencies. Hackers create Electrum wallet software with malicious code, induce users to download, and trick users into providing login information such as passwords to commit theft.

Another upgrade under study is the release of a new version of the Electrum-LTC desktop wallet. Electrum-LTC is an SPV wallet that can be used in Windows, Linux, and OS X operating systems.

Electrum DASH "PrivateSend" is on TestNet.

Chain News, lightweight Bitcoin Wallet Electrum announced that the next version will support Lightning network payment, implemented using Python, Electrum as a Lightning network node, wallet users do not need to run lightning network nodes to make payments, electrum lightning network nodes have been merged into the Electrum master branch.

The Electrum team has announced the attack in an official tweet, saying that "this is an ongoing phishing attack on Electrum users" and reminding them to check the authenticity of the client's source before logging in. The team published its official website, and the Electrum clients downloaded elsewhere may be problematic.



# Firminyo is dead.

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development of specific regions by increasing the destination accessibility, through which the economic sustainability could be dramatically improved. Specifically, the proposed model will enhance the accessibility of tourism destinations to tourists with mobility impairments as well elderly tourists. The experiential nature of VR provides more sensory and rich information about the destinations to tourists (Guttentag, 2010). Hence, the purchase decision of tourists could be immensely influenced through this model. This could lead to a major economic gain through increasing the number of visits to the destinations through virtual world. In addition to this, the model could be used as an advanced promotional tool for tourism through which a prospective tourist could gain a more advanced understanding of the features of specific tourism destinations. Also, researches argue that an e-tourism experience would immensely helps tourists with panic disorder to get rid of unnecessary dismay during the exact visit (Newman, 2008). Furthermore, the model could possibly used to substitute the travel experience of endangered destinations, which are inaccessible to even normal tourists. In conjunction, the model could also be used for environmental gains related to tourism development. Especially, the eco-efficiency of tourism destinations could be indirectly enhanced through increasing the virtual visits instead of tramping horde of people across delicate habitats. Particularly the solution could immensely contribute towards the economic development of developing countries, which earns a considerable amount of annual foreign exchange through tourism.

### **Further Enhancements**

The above outlined model could be utilized for enhancing the overall development of tourism business in emerging regions. Firstly, the model could be utilized for developing virtual theme parks. Development of virtual theme parks has already been identified as a potential benefit of virtual reality in tourism business (Williams & Hobson, 1995). However, it is a challenge for emerging regions to spend huge money on theme parks, that bottleneck could be complemented through developing virtual theme parks. On the other hand, the model could be used as a means of enhancing ecotourism in the regions. Especially, reducing the amount of actual visits to the destinations would reduce the environmental effect and possibly contribute towards the development of ecotourism industry. In addition to this, the model could be used as a means to replicate some endangered destinations which are not accessible to human beings.

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involved in producing a complete virtual experience of five senses through a system in the context of emerging regions. Therefore Virtual Reality is defined as “a computer mediated sensory experience which facilitate access to visual and auditory dimensions of a travel destination” in the course of developing this model. The definition provides a contextual relevance to the requirements deemed by the travel related endeavors of emerging regions.

A recent study claims game animation technology as the possible next innovation in tourism (Tjostheim et al, 2005). But the above study evaluated the context of an entire ‘virtual tour’ facilitated through WWW. Also this research was tested with retail business - a non travel industry. However, the user testing done by Tjostheim et al (2005, p 9) with regard to the game animation technology utilization indicates that a typical home system will be enough to facilitate the above technology. Also the study reports a high technical compatibility of the particular technology. However, contextualizing the findings to tourism domain is an obvious challenge in front of practitioners. Above findings, in light of the current period of financial downtrodden urges the Sri Lankan hoteliers to go for middle approach between a complete virtual tour and passive web presence. Consequently, a part application of simulation technology allowing a small glimpse of tours experience to be received through the website will better facilitate excellence in web tourism promotion.

No	Case	Author	Contribution
1	3D Digital Ecosystem for Information Systems Research	Dreher et al.	Creating viability for using Second Life as 3D Digital Ecosystem for Information Systems Research
2	Virtual Product Development	Kohler, <i>et al.</i>	Companies using avatar based innovations as a way forward to new product development.
3	Virtual Research Commercialization	Dreher <i>et al.</i>	Virtual Worlds - by their very structure provide a powerful context for innovation and collaboration
4	Virtual Museum of the Pacific	Eklund <i>et al.</i>	Implemented as Web 2.0 application that experiment with information and knowledge acquisition for a digital collection of museum artifacts from the Australian Museum
5	Automated Assessment Laboratory	Dreher <i>et al.</i>	To facilitate the assignment assessment and moderation through an automatic tool which would be further extended to manage the entire learning process from end to end.
6	Otago Virtual Hospital		To formatively assess dispositional behaviors in scenario based in the Virtual Worlds
7	Virtual Physics World	Wegener <i>et al.</i>	To evaluate students' use of the package followed by instructional and software development

## **2.8. Improved access to 3D Virtual Learning Environments**

Wood and Willms (2012) investigated the potential of an accessible 3 dimensional virtual learning environment with the participation of students with disabilities. The finding shows that there has been a plethora of research on providing access to virtual environments for people with disabilities. The findings are also applied across the educational industry for increasing the accessibility of such systems for users with disabilities. On the contrary, a study by Good (2008) devised a new method for improving access to web based information for users with disabilities. The study yielded in a method proposing to re-order search results according to user rating of web content so that the accessibility is increased. The study further evolved on re-ordering search results according to learner styles, so that the accessibility of e-learning content would be regularized according to the learning preferences of learners with differing learning styles. In this present paper Wood and Willms (2012) focuses on the participation and access related issues faced by people with disabilities. Further research is required to investigate the potential of 3 dimensional digital virtual learning environments to enhance participation and access for students from diverse backgrounds.

## **2.9. Virtual Hats – A Role Playing Activity**

Role playing in Virtual Worlds have a tremendous potential for allowing students to have effective learning endeavors due to the synchronous communication. Also, obviously Virtual Worlds have the potential to facilitate students engage in learning activities which are not possible in the real world. In this article, a project that involved pre-service teachers carrying out role-plays based on de Bono's *Six Thinking Hats* framework is presented. A pilot study was carried out over two years with on-campus students, who performed the role-plays both in a real-life, physical setting and within the virtual world of *Second Life*. In overall the study presented argues that real world setting could be simulated or replicated in the virtual words. The results of the pilot study suggest that students have a preference for real-life, face-to-face learning activities; however, the participants in the study were on-campus students, who, unlike those who are studying at a distance, actually have the privilege of access to this mode of learning.

## **2.10. Chinese Language Lesson in Virtual Worlds**

Henderson et al. (2012) reports on a study evaluating the single collaborative language lesson using second life. The results shows that the single collaborative language lesson using second life could show statistically significant increase in student self-efficacy believes. However there was a difference in the durability of language performance believes among the students with different real life experience. The purpose of this case is to evaluate and enhance the language learning believes of students through the use of second life. The place of interaction is the second life space dedicated for this task. The platform is the second life based virtual world platform allocated for this interaction. The population is the language teaching students who are using second life based mechanism to learn and improve their language abilities. The profit model has not been indicated across the entire article. However,

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SCU Events & Tourism	Chancellor Shackleton	Moderate	No description available
AAA Tours Tourism	Dennis Mitchel	Moderate	No description available
Exist Tourism Project Tour Operator	Flavio Earst	Moderate	No description available
Massai Tourism Project	Yuchih Andel	General	No description available
Visit Mexico	Lester Netarious	General	No description available
St' Lousious Tourism - DDINC Admin	Andrew Hughes	General	No description available
Visit Mexico	Valiant Strangelove	General	No description available
Galveston Islan Cand Trust	Link Phippen	General	A friendly SIM promoting RL anveston Island
West Cork Tourism Committee	Meekal Kilara	General	No description available
Consultant of Europa Wulfenbach	Melanippe of Themiscyra	General	To promote interest in and tourism to Europa wulfenbach, and develop friendly, mutually supportive relations
Spanish Speak in SL	Wilson Voight	General	Spanish classes, study groups, conversation practice partners and language tourism
1920s Berlin Brothel	Mab Ashdere	Adult	Part of the 1920s Berlin project between 1921 and 1933, Berlin developed a reputation for debaucherg unraled by any city
USC Public Diplomacy Events	Miranda Tibbett	General	A group for events, meetings and panels focussed on public diplomacy and hosted by the USC center on public diplomacy at the annerberg school
Galveston Island	Link Phippen	General	This group is for managing the Galveston Island Private SIM and to promote RL Galveston island, Texas Tourism
Viandando	Neverstop	Moderate	Viandando is Florence (Italy) based tour operation specializes in services and events

### **Virtual World Model for Tourism Development**

Almost all the places are either general or moderate in the maturity level of users. The similar case applied to the tourism groups as well. The number of well mature (adult) groups in the second life is minimal according to the data collected through the content analysis. Therefore, there is an emerging need for a new model which comprises of the missing requirements in the already existing tourism places and groups. The model aims to enhance the tourism

based interactions will pose challenges to the effectiveness of interactions compared to real world interactions.

Another important use of Virtual Worlds is the ability to collaborate in real time through synchronous communication medium. Virtual Worlds allow globally dispersed teams to collaborate and work in a virtual environment, where the avatar based interaction happens as part of the collaboration (Davis et al., 2009).

A recent study explores on the potential of Virtual Worlds in enriching innovation and collaboration in Information Systems research, development and commercialization (Dreher et al., 2011). The authors argue that the Virtual Worlds - by their very structure provide a powerful context for innovation and collaboration. Their paper concludes stating that there is great potential inherent in the use of 3D Digital Ecosystems for Information Systems Technology research, development, and commercialization. Such developments will keep pace with the digital-native culture of younger generations and have the potential to innovatively revolutionize our social systems relating to governance, education, commerce, and social interaction. Digital Ecosystems, 3D Virtual Worlds in particular, are set to lead the charge in our modern culture of accelerating innovation (Dreher et al., 2011).

Another recent study by Eklund *et al.* (2009) reports, a Virtual Museum of the Pacific - implemented as Web 2.0 application that experiments with information and knowledge acquisition for a digital collection of museum artifacts from the Australian Museum. Hence the mission of this paper is to evaluate the emerging Virtual World models with regard to the socio-political, technological and ethical aspects and to evaluate the degree of contributions made by these emerging models to the body of knowledge.

Messinger *et al.* (2008) discussed the typology for Virtual Communities, and the historical developments of Virtual Worlds research, clearly outlining the development of the gaming industry as well as the social networking industry. The field of Virtual Worlds is a unique blending of both these industries over a few decades. The paper further discusses the 5 Ps of a Virtual Community namely purpose, place, platform, population and profit model. Finally the paper uses the typology to interpret the development in the social networking and electronic gaming industries. The paper further claims the above typology will be useful in figuring out the upcoming trends for other industries as well. This typology has been utilized for evaluating the virtual world cases from the literature during the course of this research.

## **2.1. 3 Dimensional Virtual Ecosystems**

A study conducted at Curtin Business School evaluated using second life as a 3 dimensional virtual ecosystem for information systems development and research commercialization (Dreher *et al.*, 2011). The study focused on deploying the Automated Essay Grading (AEG) system called MarkIT™, developed at Curtin Business School, in Second Life. The paper builds an interesting case of commercializing the AEG technology through the use of 3D Virtual Worlds. In the above case, the purpose of interaction is to enhance research efforts and commercialize research through the use of second life. The place of interaction is in second life with the support of virtual world platform. The population includes the researches