COMP1715 Scholarly and Academic Practice

Coursework 1 Interim

Annotated Bibliography

The Internet of Things in a Wider Urban Context

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Content

Cha, B. (2015). *A Beginner's Guide to Understanding the Internet of Things*. [Online] Re/code. Available at: http://recode.net/2015/01/15/a-beginners-guide-to-understanding-the-internet-of-things/ [Accessed 30 Oct. 2015].

A beginner's guide to understand the Internet of Things

This article gives a clear explanation and provides key concepts to any beginners trying to understand Internet of Things. A range of questions is presented to answer any uncertainty the user may have about Internet of Things. In particular, it includes security and privacy data, benefits, how it works and examples of where it is being used. The main strength of this article is that the author has presented each question to enable the user to understand the concept of how Internet of Things works. The strength of this article is how presents and answers each question to give a better understanding of how Internet of Things is constructed and integrated. It gives a breakdown of how Internet of Things works by explaining Internet being connected to each device by using sensors, cloud services and Wi-Fi. Reassurance is the key and this article explains how security is a big aspect by explaining that companies are making security its utmost concern. This will be useful and relevant towards Internet of Things in a Wider Urban Context because a set of questions that I thought needed answering at the beginning is extremely benefiting to providing me a better understanding of the topic.

Gubbi, Jayavardhana, (2013). "Internet of Things (IoT): A vision, architectural elements, and future directions." *Future Generation Computer Systems* 29.7 [Accessed 29 Oct. 2015]

Internet of Things (IoT): A vision, architectural elements, and future directions

This paper examines in-depth analysis about Internet of Things. This overview gives a clear understanding of what direction the future technology is headings towards. In particular, it gives a huge insight what we might be experiencing. Some of these categories have given me a clear idea: home, transport, community and national. The main feature that I found useful is that it contains a picture of a timeline that predicts from 2012 for what technology will be active in the next 2, 5 or more than 10 years. Each section that I need to research on, this paper has given a clear explanation. For example, cloud computing and how it can be used within Internet of Things; home, cities; and the elements of Internet of Things. This paper will be useful and relevant towards the topic because of the depth analysis it provides for the future, IoT elements of it can come in handy when breaking down how it will work, and the way technology is moving forward. I feel that these, and more topics, would need for my research and give me a better analysis of my paper that I am going to be writing.

Zanella, A., Bui, N., Castellani, A., Vangelista, L. and Zorzi, M. (2014). Internet of Things for Smart Cities. *IEEE Internet of Things Journal*, 1(1), pp.22-32.
Internet of Things for Smart Cities
This paper highlights the use for Internet of Things in smart cities. Referring to (Gubbi, Jayavardhana, 2013), it gives a rough overview of the usage for IoT in smart cities; however, this paper gives every detail to what smart cities need. It gives a detailed introduction to define IoT. I have found this paper useful because it shows how a wide area network can be broken down for IoT to be used. Providing very useful diagrams to be broken down how the architecture works within it is useful too. The most interesting part is how to reduce traffic, and enable the city to be "smart" by it flowing together. Some topics include traffic congestion; city energy consumption and noise monitor. It wants the city to be safe. I feel that this paper would give me more to discuss and give me more of an understanding to what I already know.

VJ Nair, L. (2015). *Security aspect of internet of things*. [Online] MSys. Available at: http://msystechnologies.com/blog/2015/05/21/the-security-aspect-of-the-internet-of-things/ [Accessed 30 Oct. 2015].
Security aspect of the Internet of Things
The focal point of this article is aimed at the security of Internet of Things. It aims to address the weakness and negative issues of Internet of Things and it demonstrates many reasons why weak points can expose private data easily. The author addresses his concerns towards the security of Internet of Things. VJ Nair feels that security risks can come in any way. Hacking could be on the rise since "millions of devices are going to be connected with each other." This paper is useful to name the drawbacks of Internet of Things. It is useful to name what is necessary to what might be exposed, even if the future of technology looks promising. Furthermore, this paper gives a range of solutions alongside the dangers of Internet of Things too.

Niewolny, D. (2013). *How the Internet of Things Is Revolutionizing Healthcare*. 1st ed. [eBook] Available at: http://cache.freescale.com/files/corporate/doc/white_paper/IOTREVHEALCARWP.pdf [Accessed 30 Oct. 2015].
How the Internet of Things is Revolutionizing Healthcare
This paper examines how Internet of Things can be used on the healthcare system. In particular, using remote monitoring a patient's progress for anything. This can improve healthcare systems by analysing data. It is going to be cost effective, but Freescale have seen that it is already happening. The paper focuses on the challenges and opportunities for IoT. It will also show, the wireless-based system that is being used today, the current healthcare system technology around. This paper would be useful to my own research because it analyses another part of how the healthcare system is being developed. We have looked at homes, security, cities; but I wanted to get this paper to focus on how IoT would affect us in the healthcare. This is different, but I have found these points given useful.

DaCosta, F. (2013). *Rethinking the Internet of Things*. [New York, N.Y.]: ApressOpen.
Rethinking the Internet of Things
The other sources have other subjects based on Internet of Things; for example, future, healthcare, and security, but this paper, in particular, gives an overview of what to predict. In particular, each chapter has a different section to what Internet of Things is going to bring. For example, Chapter one discusses the cost of IoT, how it works, traffic data and many more; Chapter two focuses on the structure of IoT. The tone of the paper throughout Chapter one. The usefulness of this paper is that it specifies what to expect for IoT. Some other papers that I have named above do the same, but this is unique. It gives around ten pages just explaining what Internet of Things does and what to expect. I find this useful. The diagrams are well explained. The principles and characteristics of IoT are given and well-used for me to understand. I find this useful because of the general tone of the paper.

Roberto, I.Belda, (2014). *Internet of Things: Advantages May Far Outweigh Its Drawbacks*. Available at: http://guardianlv.com/2014/01/internet-of-things-advantages-may-far-outweigh-its-drawbacks/ [Accessed on 16 Oct 2015]
Internet of Things: Advantages May Far Outweigh its Drawbacks
This article gives the benefits and limitations of Internet of Things. This paper is different from other articles that I am going to be using is that it only focuses on the benefits and drawbacks of Internet of Things. Research has shown that "by 2020, 30 billion devices" will be connected with each other. The style of the way it is written is key too. Naming big companies, such as Google "investing $3.2 billion buying out Nest" and LG "offering users the ability to control their appliances from a text message", of what they are currently investing in the latest technology is a big benefit. This article is useful because it simply gives me the advantages and disadvantages of Internet of Things. For any technology, users would want to know what the good side of the product is and the bad side of the product.

Understanding the Internet of Things (IoT). (2015). first ed. [eBook] Available at: http://www.gsma.com/connectedliving/wp-content/uploads/2014/08/cl_iot_wp_07_14.pdf [Accessed 2 Nov. 2015].

Understanding the Internet of Things (IoT)
This paper examines the understanding of IoT. This paper is different towards the first one that I have. In particular, it discusses the impact that IoT is going to make. In addition, it compares the current technology to the IoT technology. I feel that comparing makes it easier to understand. This paper uses many diagrams and makes it easier to understand. I feel that this is useful too and it would benefit me to understand the concept of it.