**Influence of the Internet of Things and its Sub-Domains on Development of Architectural and Design Patterns**

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**1. Introduction**

In this paper the correlation between the advancements in the field of the Internet of Things and the development of new architectural and design patterns are examined.

This paper starts, in Section 1, with providing a brief understanding and introduction to what the two major actors in this paper are, patterns and IoT.

The paper moves on, in Sections 2, to discuss various domains of IoT and new patterns that were developed due to the advancement of those domains. The discussion starts with the general domain of IoT and then delves into a few sub-domains. Each section provides an explanation of the domain and then moves on the the issues that the new patterns were invented to solve, finally ending with the new design pattern that were created. Some are more expected than others, such as IoT in general would require new networking patterns but it isn’t as clear the BCI (Brain-Computer Interfaces) would need new ontology patterns without reasonable research done in that field.

In Section 3, the discussion moves on to the thoughts of this paper’s composer about all that has been discovered in the previous two section and speculation on the future of these fields.

Finally, in Section 4, this paper is concluding while going over what the paper covered.

**2. Introduction to Patterns and IoT**

fill in…

**3. Domains of IoT and their effect on Patterns**

fill in…

**4. Composer’s Thoughts**

fill in…

**5. Conclusion**

In this paper it has been shown how, although the Internet of Things, isn’t technically a new technology, its rapid development in the last decade or so has drastically changed the current day landscape of technology. The development revolutionary systems such as Smart Grids and video games or wheelchairs that are literally controlled by the mind will have profound consequences on a variety of sectors.

In this paper, the point was made and demonstrated that development of IoT technologies both in general and in its sub-domains has brought forth new patterns of various fields, from networking to security and more.

Several cases have been shown how, given a problem or problems in a relatively new sector, such as Smart Resource Distribution, or an existing sector with new problems, such as care for the elderly, new patterns have been created to solve said problem. In some cases, the new design patterns were closely related to existing ones, yet altered in a way to better fit the new domain, while other deviate more from establish patterns to work better with new problems that need solving.

In the last section where the composer’s thoughts were given, it was mentioned that although some problems recur, many design patterns develop to solve set problems are not well known throughout the field. It is the composer’s opinion that as time moves on, more information will naturally be shared and the new patterns will become more wide spread. In addition, it is the composer’s opinion that the realm of IoT is the clear path for the future and in fact a great future for IoT and in turn for technology and all who benefit from it is unfurling even now that these words are being written.

**6. Bibliography**

fill in…