

# A Transition Model from Web of Things to Speech of Intelligent Things in a Smart Education System

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## Abstract

Several terms have been used to describe Internet of Things; Web of Things (WoT) is a term which can be used interchangeability and it is referred to as the capability of devices to interconnect to the World Wide Web and sharing the information and data to one another. WoT has been mentioned in the literature to improve interconnection between devices at all times. In WoT, two different modes of communication which are generally mentioned in previous studies include person-to-thing (or thing-to-person) and thing-to-thing. This paper presents an architecture for transiting from WoT to speech-enabled WoT known as Speech of Intelligent Things (SoIT). The system employs a combination of technologies such as system design, server-side scripting, speech-based system tools, and data management in developing the SoIT prototype system as a third mode of communication. This paper illustrates a scenario whereby remote monitoring and controlling of WoT devices within the university campus might be difficult to manage by only using the modes discussed in the literature. An evolution of WoT to SoIT was realized using speech technology to provide a prototype system. Technical implications involve using a telephone by connecting an object telephone number (OTN) and dial WoT objects and establish a control mechanism. The research limitation is mainly the cost of dialing an OTN number. The contribution of this paper is to favor and encourage the use of speech technology to enhance the convenience of communication between WoT devices within the school campus.

## Keywords

e-Campus OTN Speech interface SoIT WoT

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## Notes

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