

Application, Challenges, Issues related to Web of Things in Education

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There is a worldwide trend to employ technology in education/schools. Technology certainly helps students and education in many positive ways, however, poses several challenges and issues at the same time especially in developing countries. Kids-friendly Wearables devices will soon be available that can help special needs students with Learning Skills. In addition, technology also helps teachers, school administrators with managing school smoothly. Future classroom will be teeming with various form of connected devices including smart boards, smart desk, smart projection devices and sensors. These devices will need to interact with each other, cloud and as well as students' personal devices such as tablets and smart phones. In addition, technology is needed to enable seamless collaboration between students' devices in the same geo-location as well as across continents. To efficiently realize these use cases and scenarios, several challenges need to be solved:

- Developing Low cost student friendly Wearables and devices understanding students voice command, gestures and any other method of interactions. E.g.,
 - Voice recognition in a noisy environment
 - Nod recognition
 - Accurate Eye tracking
- Availability of High bandwidth in schools
- Seamless connectivity between devices
- Interoperability or information exchange between smart classroom devices
- Seamless multi-cloud interactions hosted and operated by multiple entities

For a successful worldwide deployment of Web of Things in education, seamless interoperability between smart classroom devices is desired. Several issues mentioned above must be resolved for integration between multiple platforms and clouds. We would like to work with W3C members and academia to investigate these issues, develop use cases and propose solutions. In addition, proposal for formation of working groups, standards will be developed if needed.