



# WoT's Going On

## The Idea in a Nutshell



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# WoT's Going On

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- WWW
- document driven



## WoT's Going On

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- Technologies can be transferred
- How about “soft” requirements?



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The internet-based person/object and object/object communication is not seamless and serviceable (enough).



# WoT's Going On

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› Perception

› Action

› Collaboration

## WoT's Going On

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- ▶ How can we exploit the Web Of Things to make everything perceptible?
- ▶ How can we make the entities within the Web Of Things controllable?
- ▶ Can we design a self- evolving collaborative intelligence among things, to let a new level of services emerge?
  - ▶ Does our understanding and perception of the world change, if things have their own digital identity?



## WoT's Going On

- › The World Wide Web (WWW) has had a tremendous success in the last decade. It empowers people to connect and share or even explore files on a global scale. Though it has become more and more multimedia over the years, its basic form is still plain text. To interlink different documents, Tim Berners-Lee invented the Hypertext Markup Language, which then shaped the appearance of the World Wide Web substantially. Nowadays, this hypertext can also contain enriched media such as videos, yet the principal concept is document-driven. With an ever growing number of pervasive electrical devices, it is time to redesign this outdated structure and pave the way for a Web Of Things (WoT). Many current technical concepts can already be adapted to the Web Of Things, e.g. HTTP, URIs, and scalable infrastructures. However, there are aspects which can not be transferred that directly, like security and authentication as well as the whole idea of the interactive Web 2.0. How can the known paradigms be modified to suit the new requirements of a Web Of Things? To take the first steps towards a Web Of Things, we identified the need for a seamless and serviceable person/object and object/object communication. Currently, three important cornerstones seem to be missing in order to achieve this goal: perception, action, and collaboration. How can we exploit the Web Of Things to make everything perceptible? How can we make the entities within the Web Of Things controllable? Finally, can we design a self-evolving collaborative intelligence among things, to let a new level of services emerge? Besides looking at these questions, we are also concerned about possible social impacts. Does our understanding and perception of the world change, if things have their own digital identity? What makes up such a digital identity anyway? By applying our findings to exemplary use cases, we would like to explore this new era of connectivity.