

Building Energy Information Visualization and Dashboards

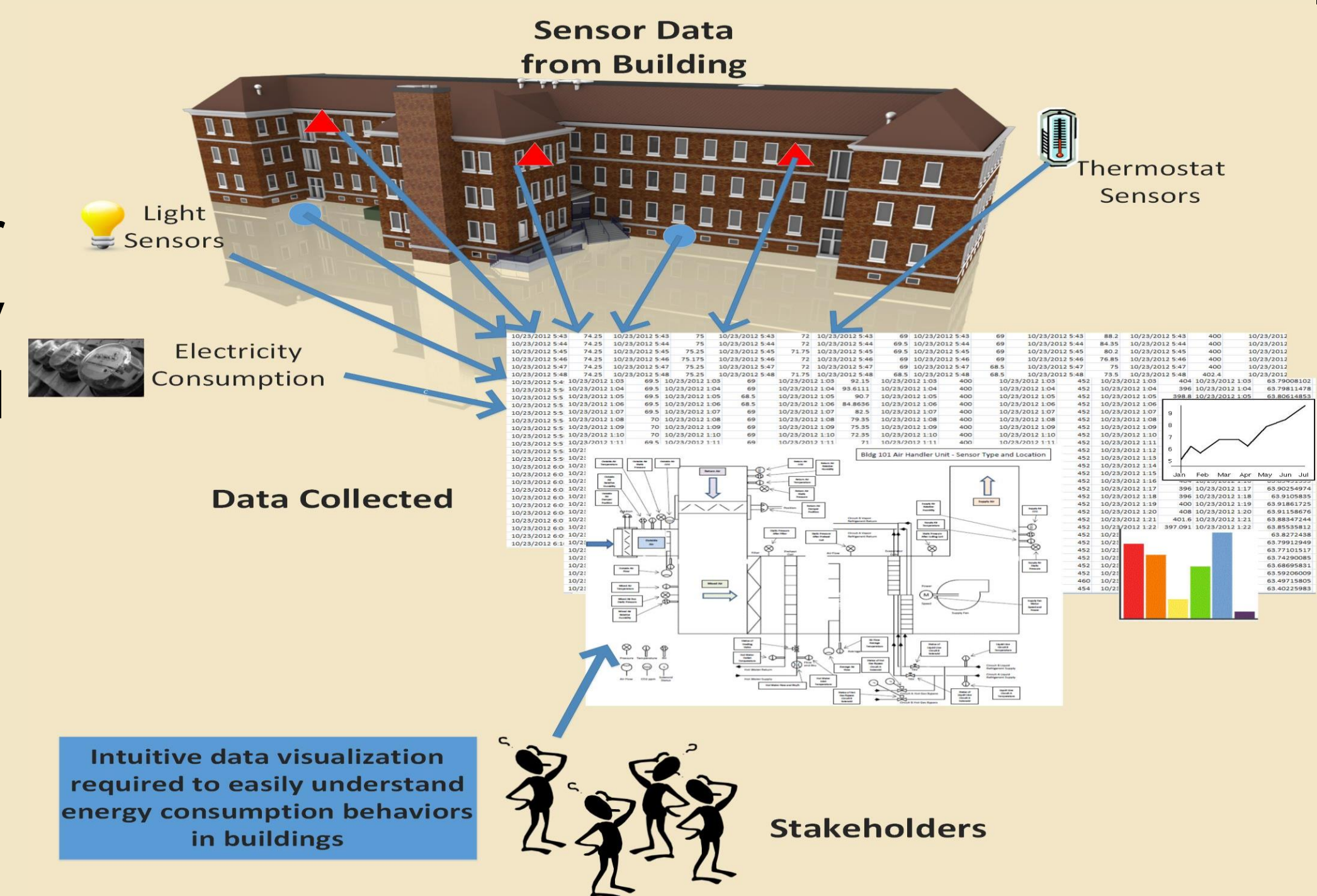
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Academic Advisors: Semiha Ergan, Burcu Akinci

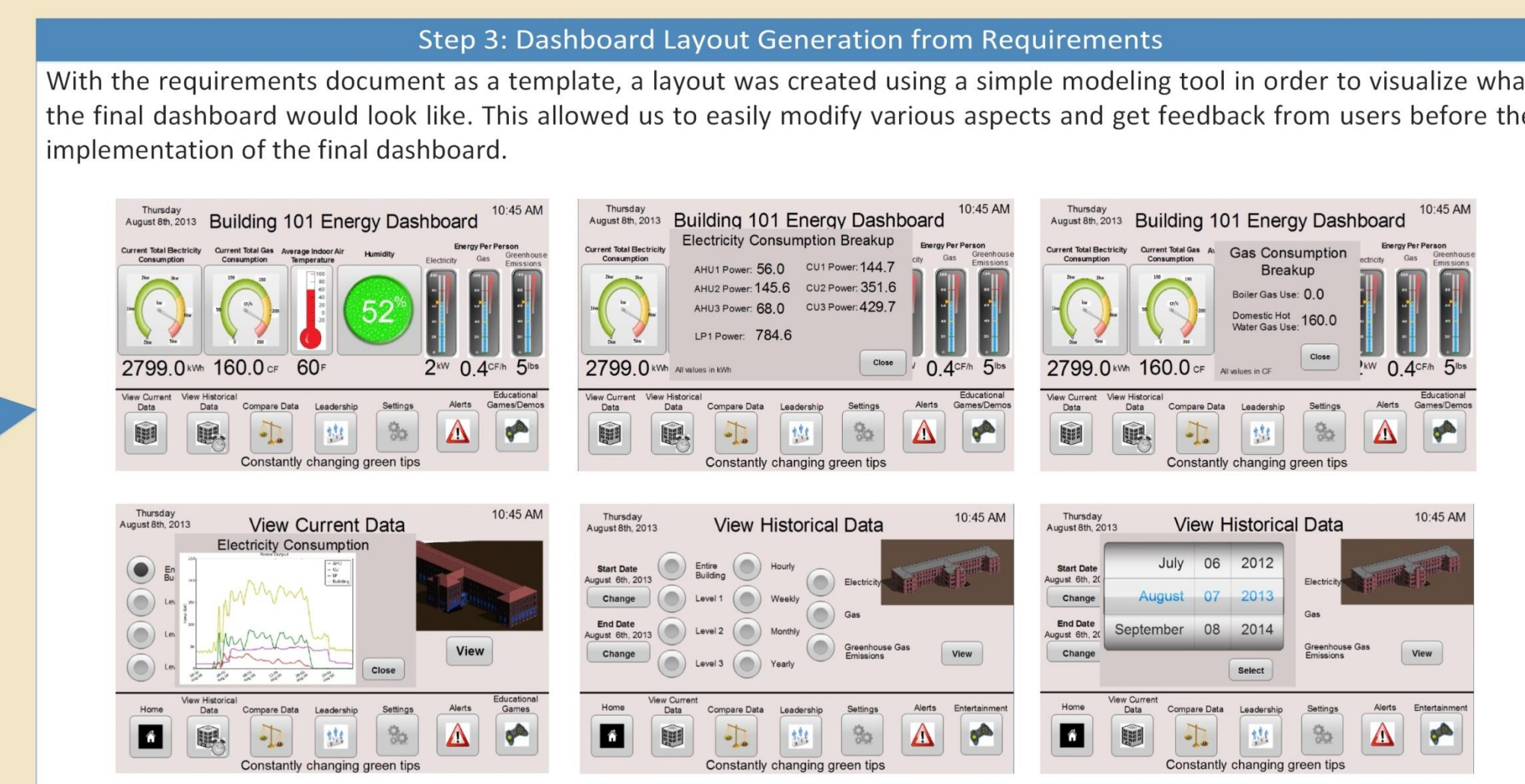
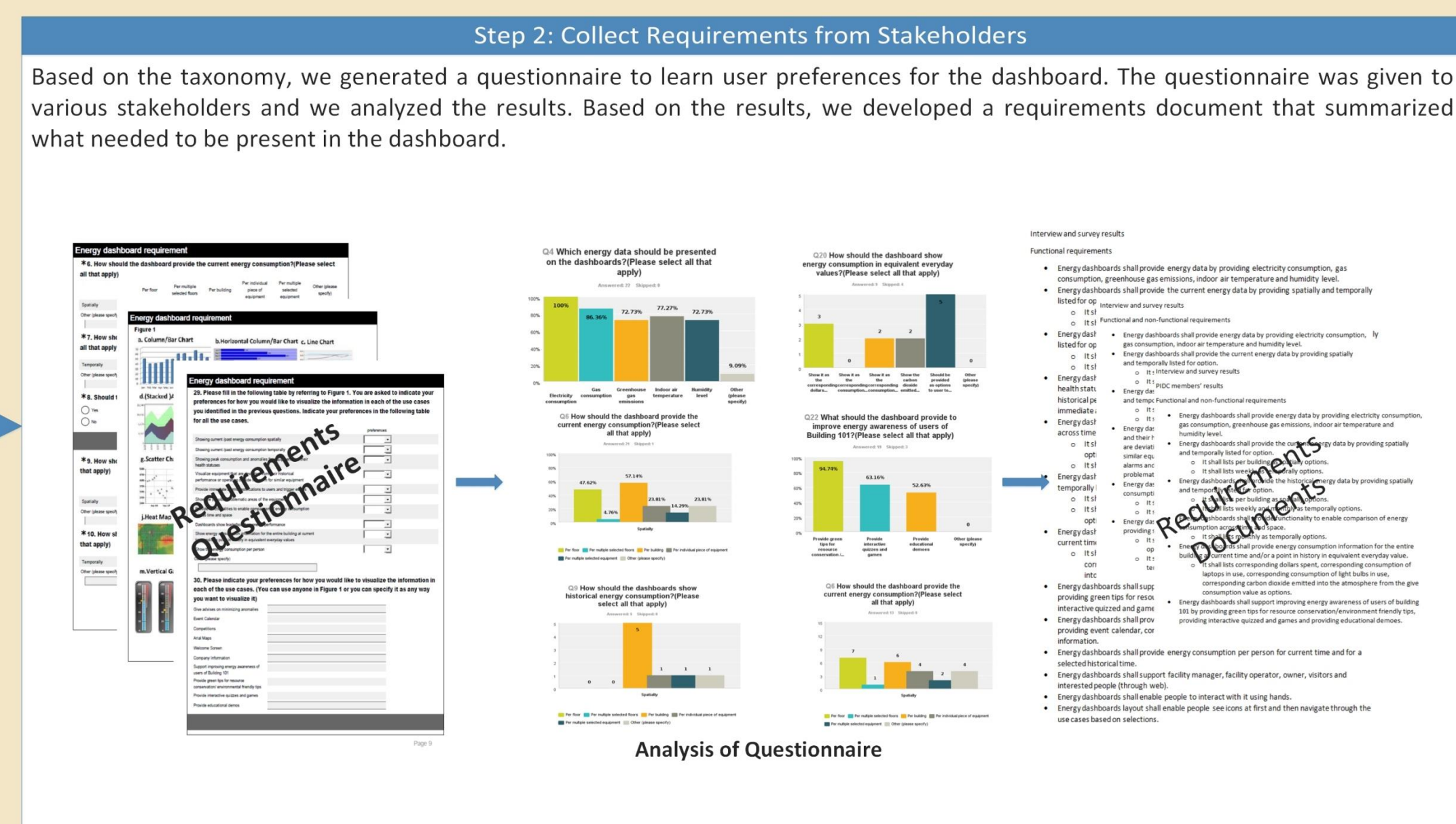
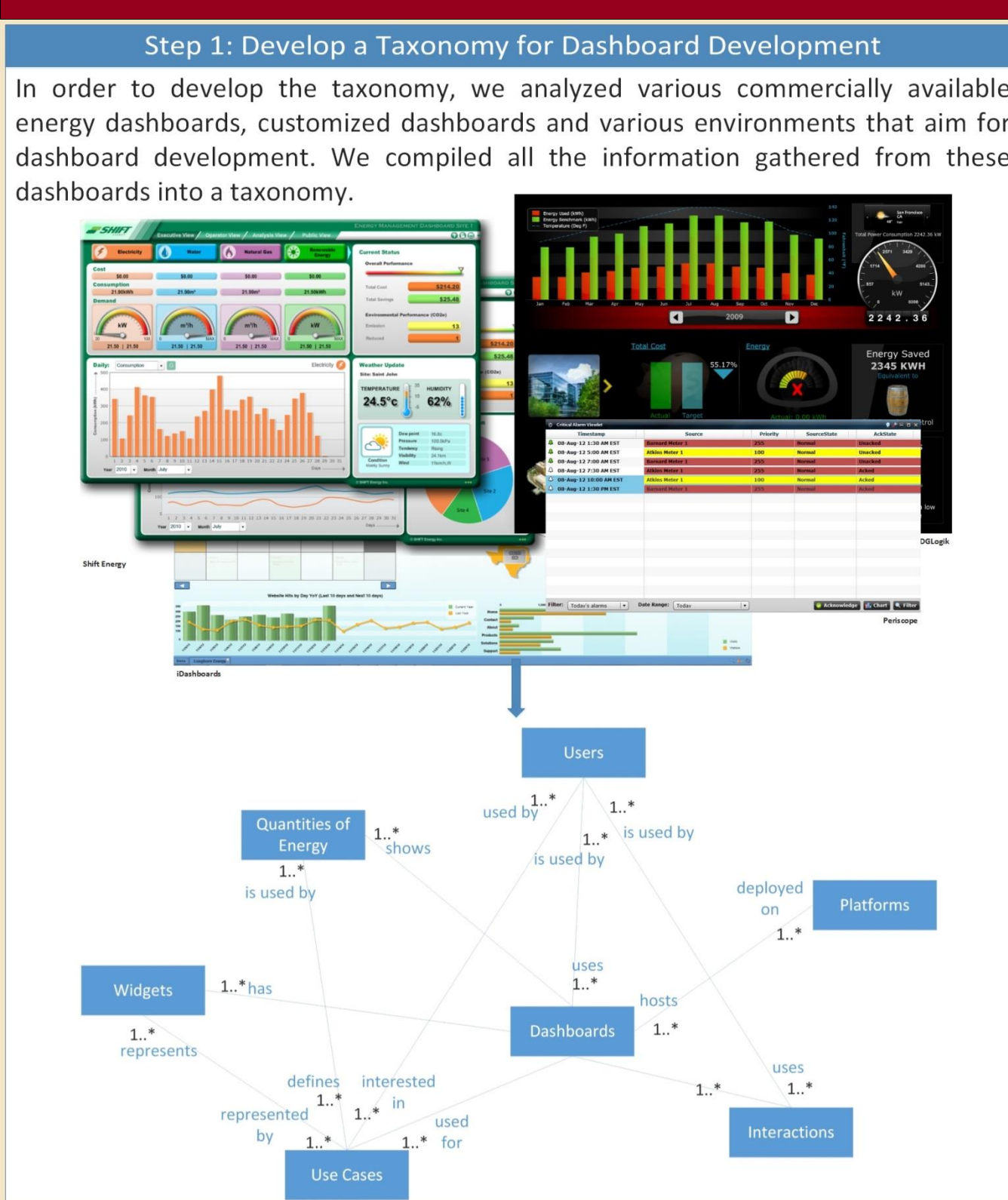


Motivation

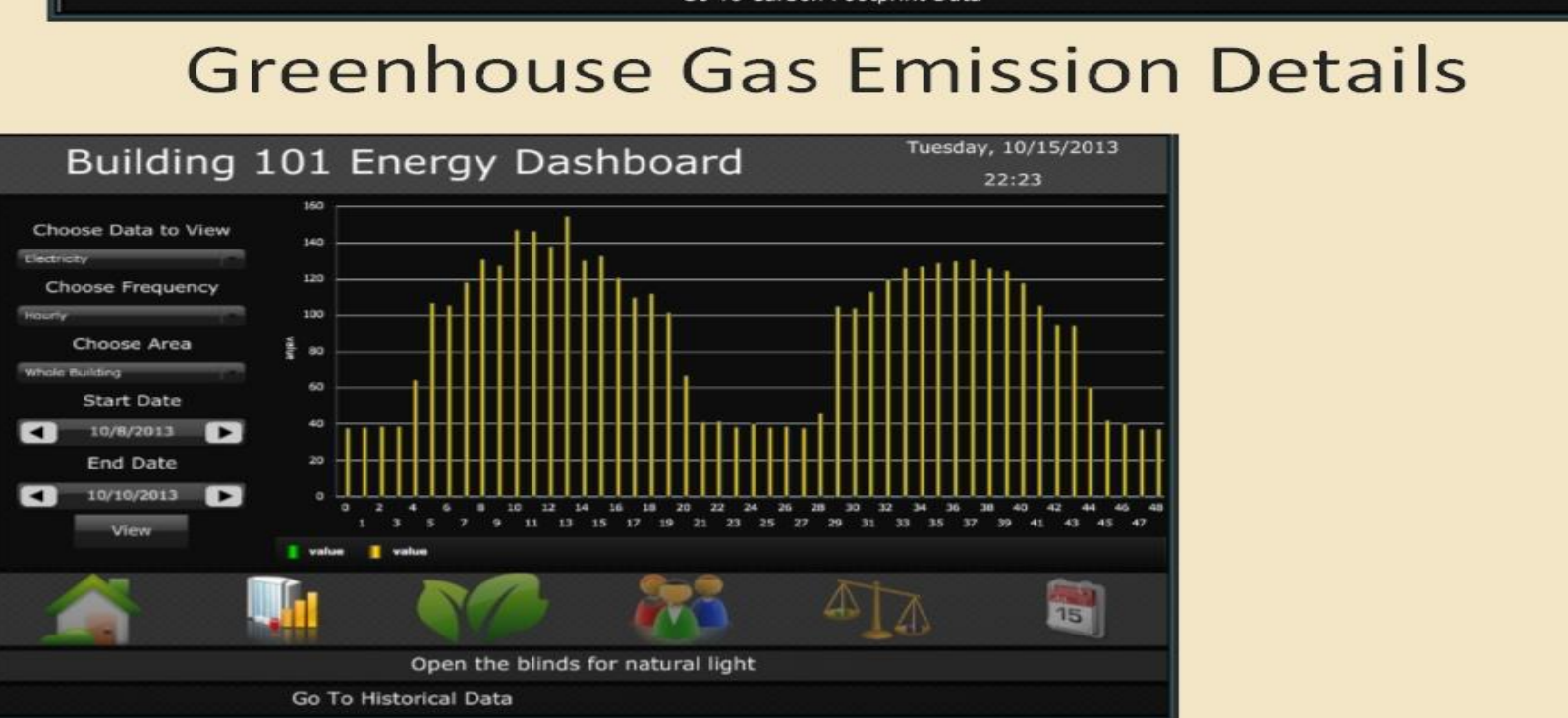
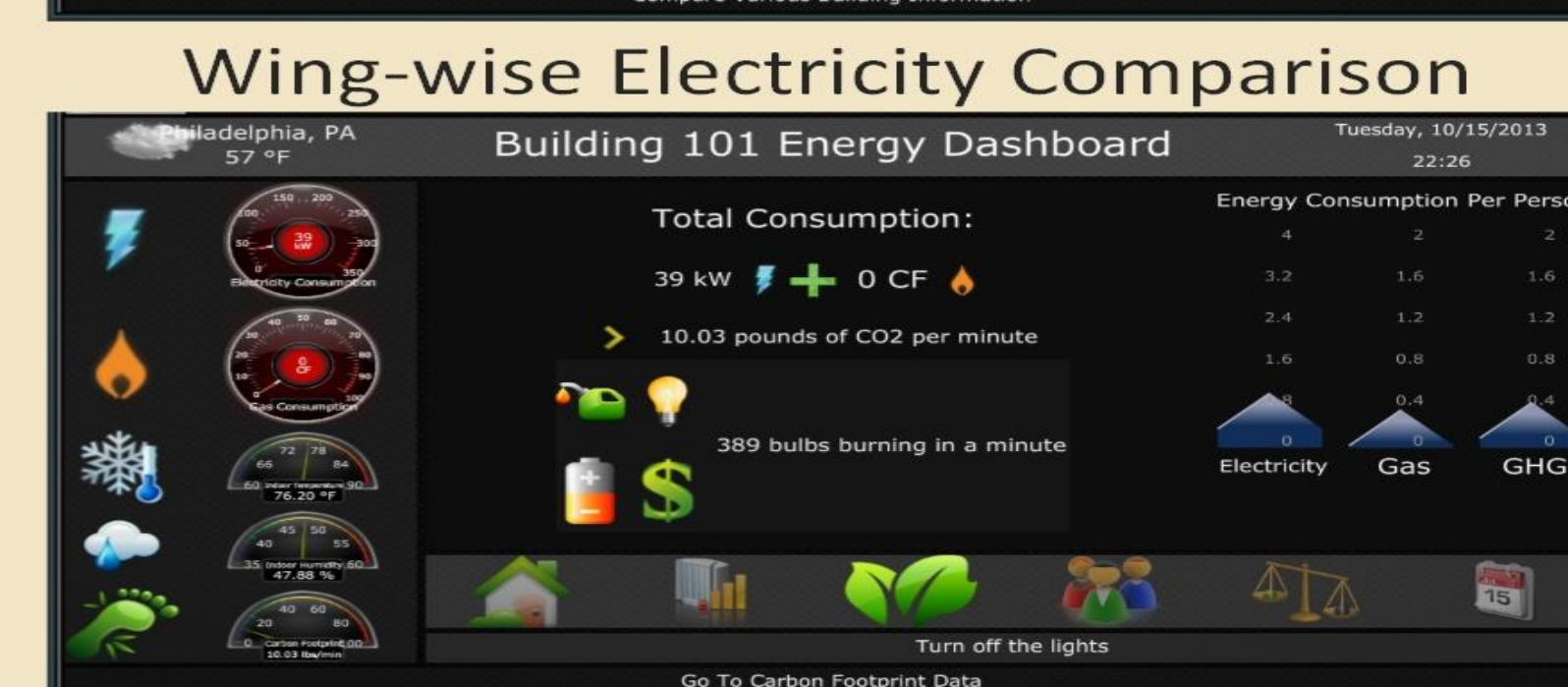
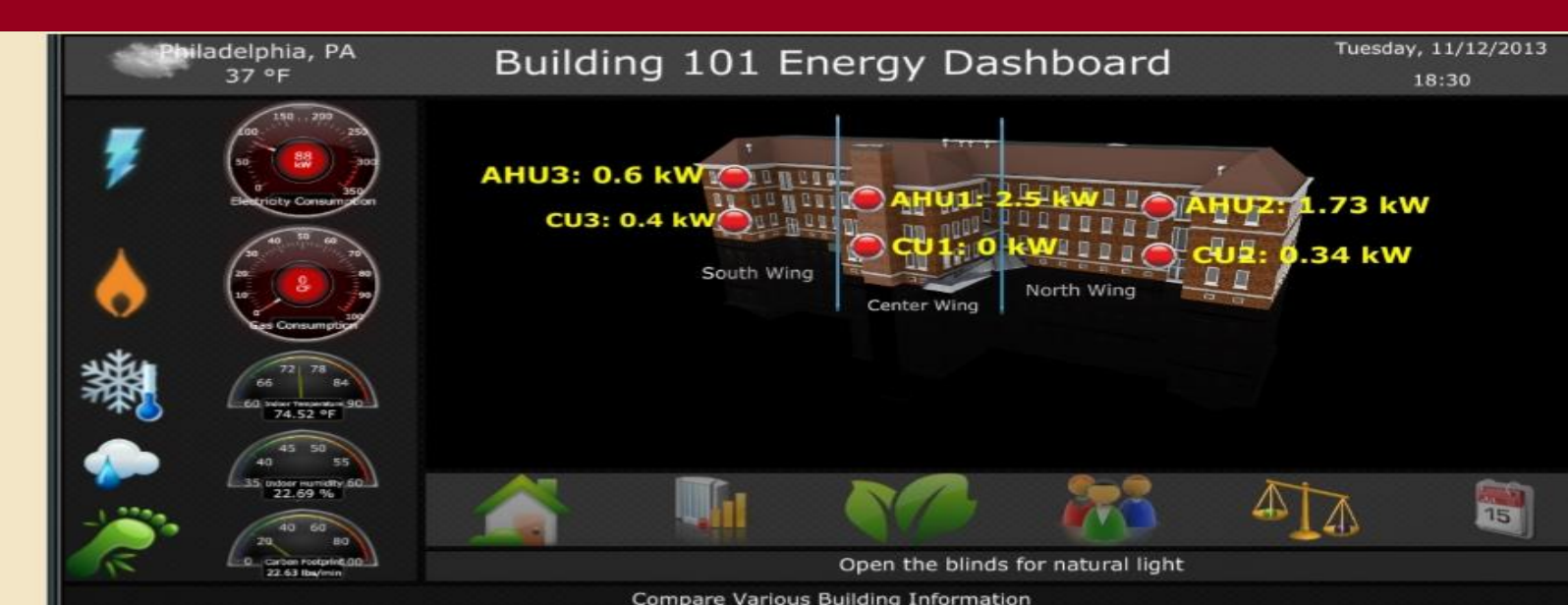
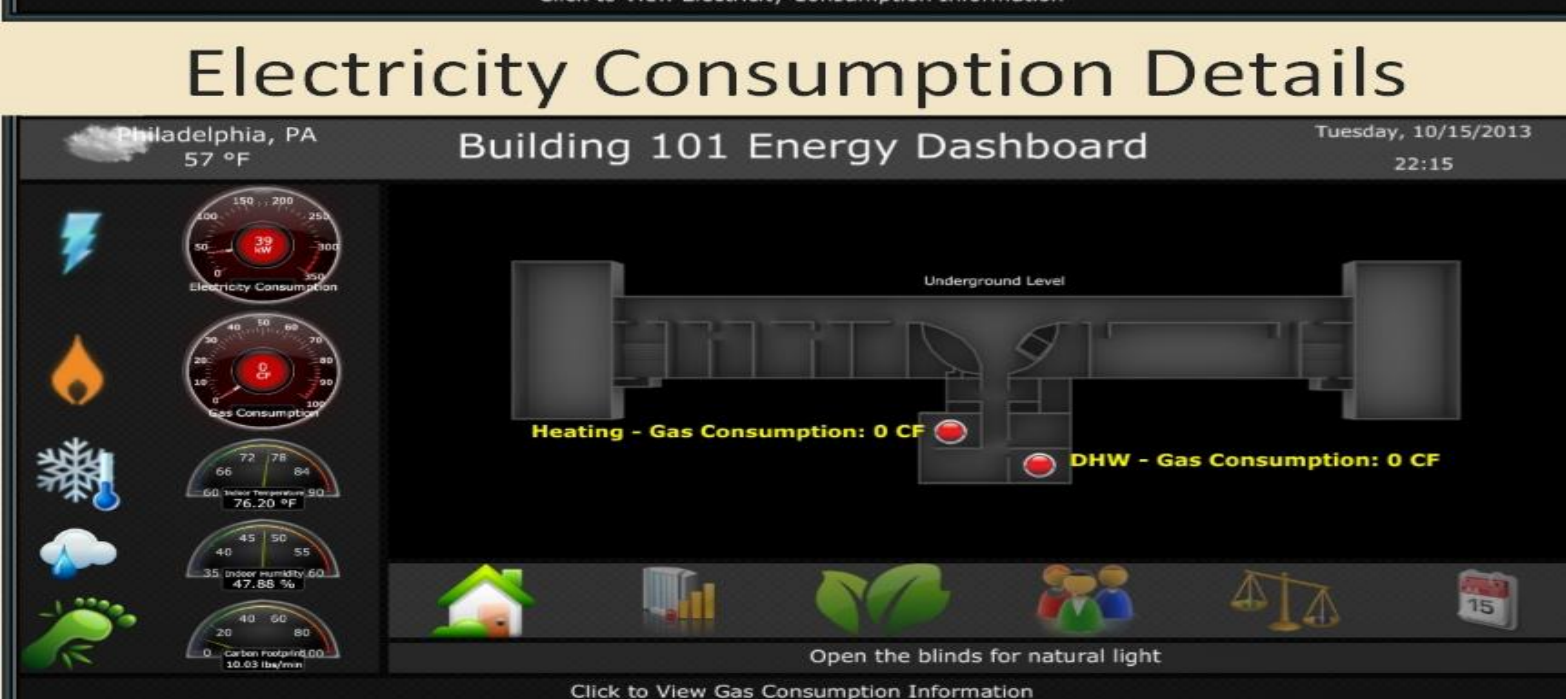
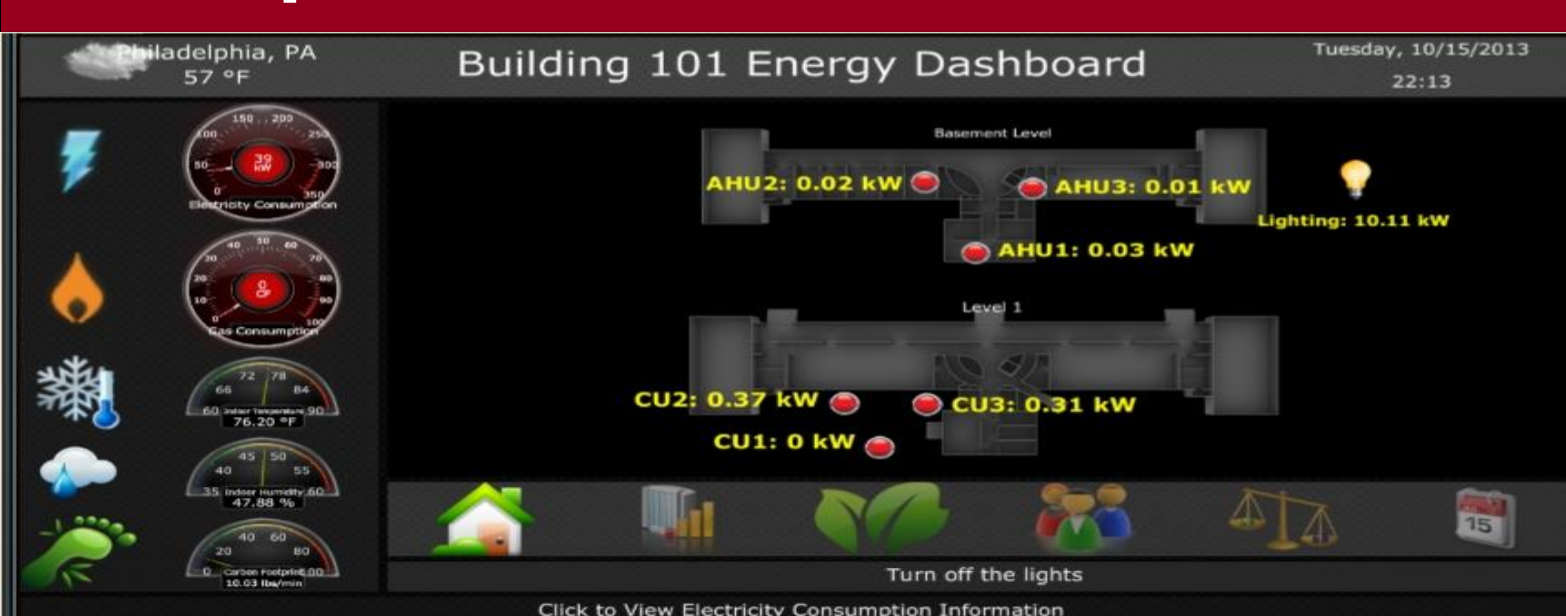
- The Energy Efficient Buildings Hub aims to transform the energy efficiency market for existing small and medium-sized commercial buildings.
- Large investments are made for sensor systems in buildings that monitor and control energy consumption. These systems help to be aware of energy consumption, increase energy efficiency, reduce energy use and understand system performance.
- Large amounts of sensor and building automation system data is collected
- Very difficult and time consuming to go through all the collected data manually → a quick way to comprehend all the data based on the needs of the stakeholders (visitors/occupants/FMS/owners) is necessary.



Vision & Approach



Implementation



Contributions

- Taxonomy of building energy dashboards for generation of future dashboards in other buildings
- A requirements engineering based approach to develop formal and customized dashboards

Publications

Kumaraswamy, V., S. Ergan, B. Akinci, "Taxonomy of building energy dashboards and an implementation", ICCCBCE 2014