TREE.O: Exploring use of data in new ways

The urban installation TREE.O is located in Vester Voldgade in Copenhagen. The street may look just like any street in the city centre, but over the next years the street will be transformed into a site for experimenting, testing and investigating the potential for Smart City, Big Data and digital solutions under the headline ‘Street Lab’.

The installation has been developed in this setting, and overall explores how technology - and data - can be used to create new activities and meeting places for people who live, work and pass through the area. The installation has enabled new meetings between different age groups and data show it is being used both day and night, summer and winter.

Light and soundscape change when being used

TREE.O is an urban prototype, 6 metres high, and the intensity and complexity of the light & soundscape depend on the number of people activating the pressure sensors.

Machine-learning algorithm to analyse a scenario

Since April, TREE.O has had 5 different content-setttings. The installation is able to analyse and detect a scenario based on collected data about the weather and activity near the tree. Different moods and scenarios have different parametre settings for sound and light. Throughout the day the ambience of the tree changes. This makes it possible for the tree to gradually change from e.g. a cold morning scenario to a warm afternoon.

The sound has a variety of different options and it changes based on the data from a machine-learning algorithm. Major changes in weather and usage cause a drastic change in both the drone sound and the notes triggered by the pressure sensors. The light has also a variety of options and it changes based on the data from the machine-learning algorithm. The amount of feedback, ambient lighting, patterns and colours vary greatly depending on sensor data and user interaction.

How can we, through pilot projects like this, improve and challenge the way we use data in the urban space and learn from it in relation to future urban development projects?

And how can we explore new ways of activating small public spaces?

See the film: [https://vimeo.com/channels/digitalurbanenvironments/treepoint0](https://vimeo.com/channels/digitalurbanenvironments/treepoint0)
See some of the data that have been gathered in the process: [http://tree0.datavis.dk](http://tree0.datavis.dk)
Read more about the project: [https://alexandra.dk/uk/cases/treepoint0](https://alexandra.dk/uk/cases/treepoint0) and/or [facebook.com/treepoint0](https://facebook.com/treepoint0)

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