



PIONEERS OF LIGHT ROUND TABLE DISCUSSION, AMSTERDAM, THE NETHERLANDS

# Internet of Things, lighting and lighting design

**Four experts in different fields of light came together to discuss the impact that the Internet of Things will have on lighting and lighting design. They introduce themselves and talk about the issues that most concern them. The independent lighting designer and writer, Alan Tulla, moderate the discussion.**

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*Martin Klaasen*

**Martin Klaasen:** I run Klassen Lighting Design, based out of Singapore with other offices in Shanghai, Jakarta, and Perth. Also, this year I've started a company called "lighting design of things". Some time last year I realised that decisions about IOT in relation to lighting and light fixtures were coming from people like smart consultants or IT consultants. As a lighting designer I thought "hold on I'm the lighting designer, I'm supposed to be in charge of the lighting effects and lighting ambience and moods" so I started studying what IoT means. At the beginning of this year I came up with "lighting design of things" as a service platform. I don't know where it's going to go but it's really interesting.

**Laura Taylor:** I head the design exploration team at Signify. IOT affects our work in two major ways: firstly previously when we did design research it was largely about the behavior of the light and the tasks that people did under that light, but when you connect all kind of other devices you have to think of the bigger context and all the activities that take place in this space. The other thing is, we design a lot of user interfaces or ingredients for user interfaces and we can instrument our design much better so when we put an app out there, like the hue app, we know within a day we will get the first feedback.

**Nathanael Meyer:** I head of design at exhibition design company GSM project, which is based in Montreal with 350 people in Montreal, Dubai and Singapore. I realised that we were already trying to do Internet of Things before it was a buzzword, trying to connect interactive elements in exhibitions to capture the content for specific visitors and also to track data about visitors' behavior. We need designers who can take all this data and make something which is useful for the visitor experience.

**Peter Raynham:** I've been in the lighting industry too long and I've been working at a university for a number of years. Now I'm professor of the lit environment at University College London. The Internet of Things is complex because there are several levels we have to address. When teaching students we have to start explaining in terms of a research tool. For example, we've just commissioned a large-scale artificial sky which has 810 light sources spread across a dome. I've done it with a device which is IOT connectable, which is brilliant because it means that you know when you send a message to something it's going to get there. It was an eye-opening experience actually commissioning one of these things, and it took a lot longer than planned.



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Laura Taylor



Peter Raynham



Laura Taylor



Martin Klaasen



Nathanael Meyer



Alan Tulla

**Martin Klaasen:** The lighting point as we know it today will be totally different in a couple of years' time. It will be a digital hub in which lighting is probably a small part of what it can do. In order to do lighting design we need to understand what kind of influences this IOT will have on the light fixture. You need to understand what it is that you're going to do with all those IOT devices and what you intend to do with the data analytics that comes out of it and how that can feed back to your lighting and lighting controls.

**Laura Taylor:** I think it's going to be necessary to stay with projects more continuously because it's going to be about the whole usage over time. The level of quality of the scenes will need to go up to respond.

**Nathanael Meyer:** We are designing an exhibition now that's going to open in 2023. We're trying to postpone, as far as possible, the specification of infrastructure or fixtures to make sure that when our clients buy the actual stuff they have the latest stuff. More and more I suggest to clients that they spread the money during the lifecycle of the project, so that each designer working on the project, including lighting designers, can gather all the data from the operation of an exhibition or a building and then still be creative.

**Martin Klaasen:** Because the lights are all programmable and updatable, there is scope for providing lighting design management after a project is commissioned because there will be a need to upgrade and to adapt to seasons or things that you want to do. There's definite scope for lighting designers to provide these services after commissioning.

**Peter Raynham:** By definition a building is never going to be optimal and so the more tools that you have available to make the building more useful, the better it's going to be.

**Martin Klaasen:** This also points to the need for partnerships because as a lighting designer if you're going to be the facilitator or integrator of all these IOT services and whatever it's linked to, you need to have partnerships.

**Nathanael Meyer:** We won't have to be the specialist in how it works but a specialist in mood and feeling. And, as designers, we have to acquire the trust that we are the right people to call on for good content. I think this is the only way to guarantee our position.

**Martin Klaasen:** One real estate developer said to me, there are only two things that interest me. One is to reduce the cost as much as possible and the second is to improve the human experience as much as possible.

**Laura Taylor:** Look at paint companies. 20 or 30 years ago there were just a few shades you could paint your house and now you have this whole portfolio with lovely words to describe colors. We've been doing that with hue as well, so we've got 30 light scenes in the in the hue app and we've given them names like the city lights group and the relax collection of scenes to help people because they aren't used to talking about light.