

## **Thinking about gender and science: A look back at day one of the Ecsite Directors Forum 2012**

*By Michael Creek, Science communication consultant, Brussels, Belgium*

Olle Nordberg welcomed participants to the Ecsite Directors Forum 2012, quoting Archimedes: "Give me a place to stand, and I shall move the Earth." The Forum's host institution, Teknikens Hus in Lulea, Sweden, as a place to stand, included the issue of gender in its mission 25 years ago when it was founded. Now Ecsite gathers 46 directors of science centres and museums from across Europe to look at the issue of gender in our institutions. When it comes to gender, Nordberg says, his science centre, Teknikens Hus, has always tried to rock the balance.

Nordberg already began to raise some crucial questions. By identifying this imbalance between the sexes, do we, in fact, contribute to maintaining it? Do girls have any less interest in science and technology than boys, or do they just tend to express this interest differently. He introduced Birgitta Bergvall-Kareborn, Pro Vice-Chancellor of the University of Lulea, who welcomed participants to the city and university campus where Teknikens Hus is located. It's a technical university which also has a focus on gender, and Lulea is certainly booming as a technological hub – Facebook has chosen the city to build their first data centre outside the US.

Robert Firmhofer, President of Ecsite and CEO of Copernicus Science Centre in Warsaw, then thanked the hosts on behalf of the Ecsite Board and network. Robert mentioned two additional elements of the Directors Forum which will be raised during the event: fundraising and building societal structures for engagement in science on a city level. He anticipated a very active and engaging two days and thanked participants for coming.

Our first keynote speaker was Toni Dancu from the Exploratorium in San Francisco, US, on the topic: Considering gender in science museums. Gender inequity in STEM careers was one of the main reasons behind Exploratorium's work on gender. There is a shortage of candidates for positions, especially in engineering jobs, and global businesses have an 8% unemployment rate, so there is a need to fill positions and find jobs. There is a gap in interest in the US between men and women in STEM.

Parents talk differently to their daughters about exhibits than they do to their sons; in fact they are three times as likely to provide meaningful explanations to their sons. First time visitors at the Exploratorium tend to be equal girls and boys, but in one study there were 30 000 more boys as returning visitors than girls. This suggested that the museum experience was not encouraging them to come back.

Dancu confessed that she was not convinced by the gender gap before beginning her research. She believed that it had already been overcome. But research still shows that this gap is very much present.

A frequent concern is that generalizing about gender creates a dichotomy, where girls behave one way and boys another. Dancu mentioned the importance of emphasizing that gender is a continuum, and that boys and girls all fall somewhere on a spectrum between

what is considered stereotypically masculine or feminine behavior. Another concern is that talking about how gender should be dealt with can seem to become a prescriptive programme. But Dancu sees this more as an issue of “knowledge is power,” rather than “ignorance is bliss.”

Her research is grounded in literature, and she looked for female-inclusive design goals, including balanced representation of genders in exhibits, and including social context, which has been suggested appeals to girls in general. They tested these goals by making changes to an exhibit and seeing how interaction changed when they made these changes. The female-inclusive version was more social, more colorful and included real-world examples, with social context, and involved storylines. They collected video and audio data around the exhibit from 700 visitors. Significantly more females stopped at the exhibit – but significantly more boys did too. Girls spent nearly a minute longer at the female-inclusive version, whereas this statistic stayed the same for boys.

The Exploratorium CEO expressed a strong interest in gender equity, and this effect trickled down the organization. It was always part of the conversation among staff, and it was required. Discussing the literature about gender research, in team settings, also had a great effect. These conversations were open, deep and honest and helped staff to connect personally with the issues. It proved helpful to talk about averages rather than absolutes. Staff found added benefits: it helped them develop professionally, and it gave them new perspectives on exhibit design. Assigning Gender Champions among staff is another way to ensure it becomes a part of the institution’s work.

Dancu then invited questions from directors. One director mentioned that when Lego started to make female-friendly versions of their toys, they were criticized for being too pink, and yet they were successful. Dancu responded that she has no problem with the colour, but she objected to the fact that the “female-friendly” versions of Lego were designed to be much less complex than the original version. Nonetheless, any attempt at gender balance is appreciated.

Another CEO mentioned that most of the gender imbalance is unintentional. Dancu responded that all design should keep the female-inclusive design goals in mind and it should overcome this unintentional imbalance. Exploratorium didn’t make a checklist to see if gender was being respected in design – they simply ensured the issue came up in discussion. One participant responded that they need to conduct this research in their institutions, and this is a great starting point.

A comment from one delegate mentioned that surprisingly, in Scandinavian countries, research has found a bigger gender gap than other countries. He suggested that perhaps when girls perceive equality of opportunity in society, they do not take advantage of this opportunity. Another delegate responded that perhaps society’s perception of equality does not reflect the reality – perhaps Scandinavian countries have given up on gender in some ways. Researchers don’t agree on the causes of this imbalance.

One CEO stated that the human body has proven to be a very gender friendly topic at his institution. Another director added that she used a questionnaire to find out visitors’ favourite exhibits, and the top ten were the same for boys and for girls. So it’s not that girls are not interested. One participant pointed out that topic is an issue: biologists have no problems recruiting women researchers. Engineering, maths and physics are the tough topics for

gender. Her exhibition design team is mainly women. Another delegate responded that it's not because the designers or explainers are female that the exhibits will be gender-inclusive.

Dancu underlined that she does not see the issue is a question of men oppressing women – she is interested to look at obstacles that our society comes up against related to gender, and how they can be tackled.