

On January 28th, the final event took place of CATCH (Continuous Access To Cultural Heritage). This 10 year programme encouraged computer scientists and cultural heritage managers to make collections more accessible by working together. By Daphne Riksen

# The end of CATCH New perspectives and a feeling of family

Eduard Hovy, professor at Carnegie Mellon University, was one of the members of the International Scientific Advisory Board. 'We are all sad CATCH has ended,' he says. 'With a budget of 15 million euros, it was by far the largest and most impressive research programme I have seen in the area of IT and cultural heritage material such as language, music, paintings and artefacts. In North America there is no comparable funding for a program like this.'

## Long living collaboration

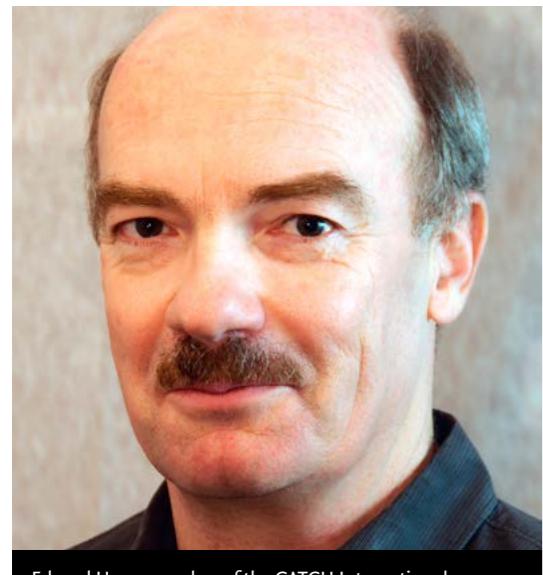
In Hovy's opinion, two things stand out above all else. 'The first is the unexpectedly rich and long living collaboration between IT and the cultural institutions. Having computer scientists work inside the Rijksmuseum or the Netherlands Institute for Sound and Vision was not easy for either party. There were misunderstandings in the first year of all projects. But in every single case, the collaboration resulted in a new perspective and something interesting for the public.'

The second thing that struck him is the long term effect of CATCH, he says. 'Because the programme was nation-wide and Holland is a small country, a feeling of family arose. As this generation of young computer scientists grows more senior, they bring a new kind of vision and energy into the field. Their willingness to work with people they would otherwise never have dreamed of working with, will lead to richer consortia in the Netherlands.'

## Blue vase

A typical example of a CATCH collaboration is the project Cultural Heritage Information Personalisation (CHIP), which ran from 2005–2010. As its project leader, Lora Aroyo spent at least one day a week at the Rijksmuseum, together with a PhD student, a postdoc and an engineer. 'It was a terrific experience for all of us. For the first time, we were inside an institution instead of just hypothesising about their problems from the outside,' she says. 'After the project ended, I really missed being there.'

In 2005, museums such as the Rijksmuseum were starting to get excited about creating mobile tours for visitors and websites with information about their collection. 'These tours were extremely static: curators handpicked the items



Eduard Hovy, member of the CATCH International Scientific Advisory Board

Afgelopen januari was het eindsymposium van het programma CATCH (Continuous Access To Cultural Heritage). Eduard Hovy, lid van de internationale wetenschappelijke adviesraad, en Lora Aroyo, projectleider van het CHIP-project (2005–2010), beschrijven het effect van CATCH op de twee werelden die voor het eerst intensief bij elkaar werden gebracht: ICT-onderzoek en cultuurwetenschap.

to be shown on a mobile device from their content system. Another problem was that this system was a manually curated sub-set of the collection database they worked with professionally,' explains Aroyo.

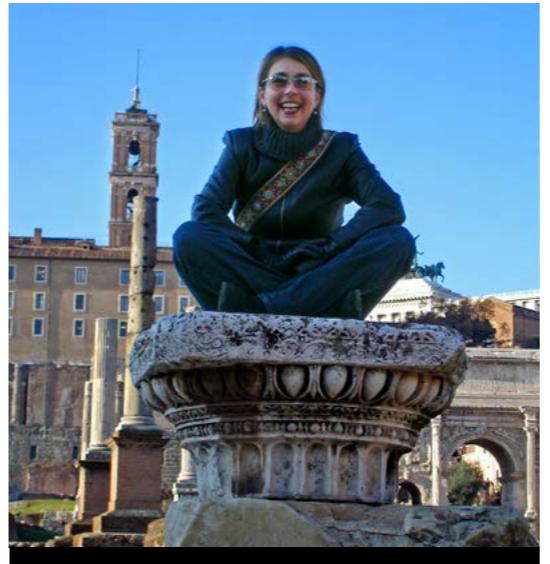
The cooperation with computer scientists made the Rijksmuseum aware of the disadvantages of maintaining two separate databases: one for visitors on the website and one for internal purposes. They also realised that handpicking items from a content database is not scalable to meet the dynamic demands and preferences of the visitors on the web. 'Besides this, visitors have other tastes and wishes than curators. For example, end users like to search for a blue vase or a yellow cup, but colour is insignificant for an art historian. The Rijksmuseum database didn't even have metadata field to describe that feature.' Therefore, semantic web technologies were used to bridge the gap between the vocabularies of end users and curators, and the collection metadata were enriched with Getty thesauri.

## Culture changer

In the second part of the project, the researchers tried to find smart ways of using the enriched information to build applications for end users. 'This resulted in a web application which creates a list of recommended objects to visit, based on individual preferences. A mobile guide then dynamically creates a personalised tour, tailored to the amount of time available or the number of objects.'

The CHIP technology now allows the Rijksmuseum to link their collection information to other museums such as Naturalis, where Aroyo is currently working in the COMMIT/ project SEALINCMedia and its COMMIT/ follow-up DigiBird. 'With information about a specific bird in a painting, visitors of the Rijksmuseum can discover new worlds.'

At the Rijksmuseum, the CHIP project ignited the process of opening up the collection to the public, says Aroyo. 'It was a culture changer. Nowadays, everybody is allowed to download all their images and use them for whatever they want.' The effects on the computer scientists was also huge. 'For us, it was a transformative process. Such experiences also influenced the vision of the computer science department at the VU University Amsterdam – we don't want to be seen as programming nerds but as researchers who are willing and able to understand end users. We now train our students in a much wider set of skills so that they are able to communicate technical aspects of systems to people who are not computer scientists, and the other way around.' **I/O**



Lora Aroyo, project leader of the CHIP-project within the CATCH programme

**Lora Aroyo: 'For the first time, we were inside an institution instead of just hypothesising about their problems from the outside'**



In The Rijksmuseum, a mobile guide dynamically creates a personalised tour