

Mercator NovioTech

Science Meets Business Nijmegen



Health Valley Event 2015:

where health leads innovation



Aia thesis awards:

jobs for RU Information Technology talent



Prof. dr. Stan Gielen:

research as basis for spin-offs



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Presentation of the Aia Thesis Awards at ICT Network Nijmegen - MeetINN 11

Career prospects for Radboud Computer Science students

In the ICT sector, technological innovations happen fast and arising problems are complex. This increasingly requires a flexible employment of highly skilled ICT professionals. Developers, programmers and account managers with an education in computer sciences and commercial skills are much sought after. Students who have followed a specialised ICT education and have business skills and experience can look forward to a bright future. Businesses are always looking for the best people to realise their most powerful innovations.

There is a lot already happening, but schools and companies must be able to find each other, in order to make a better match between the demand and supply of ICT experts. This was the recommendation made at MeetINN 11, the meeting organised by ICT Network Nijmegen on April 29 at the Radboud University Gymnasium. It also became clear that companies who are leading in innovation have close contact with teachers and students from well before they graduate. The Aia Thesis Awards for ICT students at Radboud University are an interesting demonstration of this fact. At the end of the meeting on April 29, two young talents from Nijmegen were presented with the award.

Ambition: the Netherlands as digital delta of Europe

This MeetINN kicked off with an outline of the current situation in the ICT sector. This was led by Director Lotte de Bruijn of branch organisation Nederland ICT, representing 550 companies, 60 of which are located in the Nijmegen

Lotte de Bruijn,
Director of Nederland ICT



area. She expects that “Dutch ICT companies have a lot of growth potential and will be able to expand their international interests in the future. Our competitive advantages result from digital infrastructure, superior knowledge infrastructure and education, as well as the quick adaptation of new technologies by the Dutch population.” De Bruijn expresses

her doubt about cuts in ICT, causing the Netherlands to lose ground in digital progress. She illustrates this with the Digital Evolution Index, which measures at which point the digital economies of the most important countries are currently situated. “The Netherlands were always at the forefront, and although we are still in the top ten, our digital achievements are dropping sharply compared to other countries. Yet it is our ambition for the Netherlands to be the first digital economy of Europe in 2020. We aim to be leading in the development and application of digital technologies, which will attract start-ups and international businesses. The arrival of Google and Netflix bases here prove our appealing business climate.”

The perfect ICT employee does not exist!

Researcher
ir. Robbin te Velde
of bureau Dialogic in Utrecht.

Researcher ir. Robbin te Velde of Dialogic in Utrecht presented the conclusions of his research on ICT professionals in the labour market. His research shows the differences be-



tween specific job functions, education levels and regions in the Netherlands. In comparison to the number of graduates, there is a strong demand for higher professional graduates, while there is a lower demand for those who have followed a vocational education. Those with a university qualification have only a small share. Technological developments such as Cloud Computing, Big Data, Cyber Security, and of course developments in the market will influence the demand for new ICT professionals in the next five years. This demand is expected to grow by 18%. At present, many ICT professionals are working without an education in ICT, but in the future employers will demand proper training. Currently the largest demand is for developers, 90% of those at higher professional and scientific level. The need for developers is strongest with ICT suppliers. ICT users need people who have business knowledge such as business analysts and enterprise architects. There is also a growing demand for account managers. The skills taught in ICT courses do not sufficiently meet the requirements of these professions. Concerning the regional differences: regional demand for ICT professionals is in line with the acknowledged separation between industry and services. The need for services is dominant in the north-west and central Netherlands, where there is a large shortage of ICT workers.

'Excellent' RU computer science studies

Dr. Elena Marchiori, Director of Computer Science and Information Technology at Radboud University, presented information on the qualifications Computer Science, Cybersecurity and Artificial Intelligence. The Computer Science studies were labelled 'excellent' in the Guide for Higher Education 2014. Radboud University as a whole was named the best general university of the Netherlands. Computer Science performs well on such points as small-scale activities, infor-

mal contact between students and teachers, the quality of the research institute, social impact, and university facilities. This has resulted in a large influx of first-year students. To improve the connections between students and their future employers, students organise the yearly Beta Business Fair. Computer Science student organisation Thalia is very active. As an example of a company-oriented element of the studies, Elena Marchiori mentions the practical assignment GiPHouse, a virtual software company run by students, carrying out projects with teachers as supervisors and companies as clients. In 2015-2016 the general topic is 'Velo-city 2017'. This is run in connection with the international conference on ICT and cycling mobility in Nijmegen, in cooperation with other bike-friendly cities and regions all over the world.

Aia Thesis Awards

The presentation of the Aia Thesis Awards was a festive ending of MeetINN 11. ICT company Aia Software, a part of the American company Kofax since March 2015, awards prizes every year to a bachelor and master student in Nijmegen. Aia, founded 27 years ago by former students of Radboud University, is now a global player in the field of software for customer communication. Over a year ago, Aia received a good ranking in the Magic Quadrant of the American research agency Gartner. In his introduction, Leon Phillich of VP Product Development recalled an ICT Network convention in the Nijmegen city hall in February 2014. In the presence of Gartner representatives and alderman Bert Jeene the ranking of three leading ICT companies in Nijmegen was highlighted: Aia, GX and Planon. This boosted their exposure in the US. During the awards ceremony, Leon Pillich referred to the numerous connections with Radboud University. The bachelor prize was awarded to Ben Brücker for his thesis 'Government intervention on consumer crypto hardware'. After comparing complex encryption algorithms, Ben Brücker



From left to right: Computer Science student Ben Brücker and supervising professor Prof. Dr. Bart Jacobs as the thesis award and flowers were presented by Leon Phillich, VP Product Development at Aia Software.



Right: Laurens van de Wiel received the award for his master thesis. On the left: Prof. Dr. Tom Heskes as supervising professor.

concluded that for years the NSA has been attempting to influence software security, in order to make it 'government friendly', or accessible to the NSA. According to the jury, the thesis was of special social relevance, and executed with a great deal of perseverance, according to supervisor Prof. Bart Jacobs. Laurens van de Wiel received the award for his master thesis 'Differentiating Shigella from E. coli using hierarchic feature selection on MALDI-ToF MS data'. This research has made it possible to distinguish between the dangerous Shigella bacteria (which among other things causes dysentery) and the E. coli bacteria. In developing countries the Shigella bacteria costs 2 million lives each year, and therefore needs to be identified quickly, cheaply and accurately. This method allows a mass-spectrogram to be made from a sample. The jury lauded the social impact of the subject choice, just as the care with which van de Wiel executed the research, with Prof. Dr. Tom Heskes as supervising professor.



Dr. Elena Marchiori, Director of the studies Computer Science and Information Technology at Radboud University