



For Norkom Technologies, the research has potential application in development of software products for the financial services sector, particularly in the areas of fraud detection and financial regulation. One of the areas the Clique team will specifically research is new methods for analysing transaction and customer activity on credit cards in order to improve risk control on stolen or duplicated cards.

“Spotting criminal activity is time-consuming and resource-intensive so improved methods for processing networks of financial information will help,” said John Keane Director of Product Management and Engineering at Norkom .

IBM’s involvement with Clique concentrates on the development of ‘social software for business’. Already around 100 staff, representing half of IBM’s research and development team for this product range are based in Dublin. The clustering of university researchers and industry development teams is a crucial component in attracting foreign direct investment into high cost economies such as Ireland and IBM Dublin’s involvement in Clique will help encourage IBM to locate more research and development in the Dublin lab.

Data analytics is not only applicable to the meta-data associated with social networking sites and e-commerce but also in the area of biological network data. As Professor Cunningham explains, “The transfer of techniques developed for social network analysis to biological networks has had a huge impact in recent years. In the area of biomedical informatics we can begin to build models based on data available right now that can be applied to functional genomic/clinical data that will emerge over the coming years and apply this to human health.

This offers opportunities for new drugs and therapies for a variety of diseases and ill-health conditions.” In addition to the benefits to the Irish software sector, Clique has the potential to support the Irish biopharmaceutical sector by building capacity through data analytics, speeding up technology transfer from the universities to industry and training the next generation of scientists.

The Clique cluster principal investigators:

**Professor Pádraig Cunningham:** Professor of Knowledge and Data Engineering, UCD School of Computer Science and member of Complex and Adaptive Systems Laboratory (CASL)

**Professor Denis Shields:** Professor of Clinical Bioinformatics, UCD Conway Institute of Biomolecular and Biomedical Research and member of CASL.

**Dr Aaron Quigley,** UCD School of Computer Science and Informatics and member of CASL.

**Professor Brendan Murphy,** UCD School of Mathematical Sciences

**Dr. Neil Hurley,** UCD School of Computer Science and Informatics

**Dr Conor Hayes,** Digital Enterprise Research Institute at NUI Galway and PI within Clique.

#### Industry Partners

- \* **Idiro Technologies**
- \* **Norkom Technologies Ltd.**
- \* **IBM**

#### Other collaborators

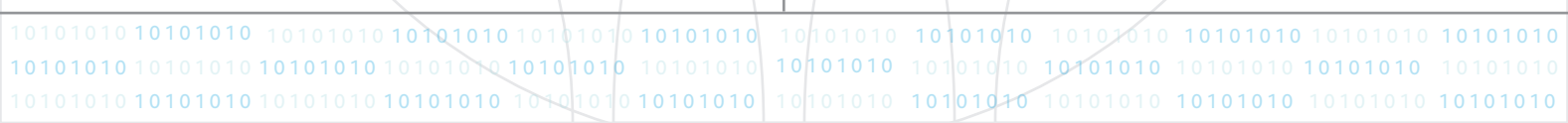
**Professor Desmond Higgins,** Professor of Bioinformatics, UCD Conway Institute

Prof. Stephen E. Fienberg

Prof. Adrian E. Raftery

Prof. Nial Friel

Dr. Gerard Cagney



## FAME Cluster Participation Announced



The Performance Engineering Lab (PEL) are participants in a new SFI Strategic Research Cluster led by Waterford IT. The Cluster is entitled FAME (Federated, Autonomic Management of End-To-End Communications Services) and has a budget of almost EUR 6M over 5 years, starting from January 1st 2009. The UCD share of this budget is almost EUR 1M, and the PEL effort is being led by [Prof. Liam Murphy](#) and [Dr. John Murphy](#) with the help of several PEL Research Fellows and Postdoctoral Researchers.

FAME will develop autonomic management solutions for next-generation integrated telecommunications networks. PEL will contribute to FAME research on wireless mesh networking, focusing on service provision to meet end-users' quality requirements; and on automated data monitoring and analysis of networked enterprise systems, to support optimal configuration and resource allocation.

The lead PI on FAME is Dr. Willie Donnelly of Waterford IT, and the other institutions involved are TCD, NUIM, and UCC. There are 6 blue-chip industrial partners: Cisco, Alcatel-Lucent, Hewlett Packard, IBM, Ericsson, and Telefonica (who own O2).

## Active Learning Laboratory Opens



UCD CSI's ability to provide the highest level of Computer Science instruction has recently been boosted by the unveiling of a new state of the art facility for teaching and learning, the Active Learning Laboratory.

The Active Learning Laboratory is a pilot project to foster an interactive, student centered learning experience. With our students already using the new facility, the feedback to date has been very good and the lab is proving to be a very valuable addition to the school.

Through the use of technology and collaborative learning we hope to improve the students' understanding of the subject matter and foster a greater sense of inclusion and participation among our class groupings.

This format is based on extensive research and implementation carried out in the United States,



