Oliver Daniels
CEO Insight 2014-2019

INTERVIEWS WITH EXPERTS IN BIG DATA AND ARTIFICIAL INTELLIGENCE CENTRES OF EXCELLENCE SERIES
AN INTERVIEW SERIES WITH EXPERTS IN BIG DATA AND ARTIFICIAL INTELLIGENCE
We conducted interviews with a wide range of experts within the Centres of Excellence, from the top executives and academic leadership involved in daily operations, management decisions and strategic decision-making processes to specialists in areas such as academic-industry collaborations.

About BDVe
The goal of Big Data Value ecosystem (BDVe) project is to support the Big Data Value Public-Private Partnership in realising a vibrant data-driven EU economy by effectively combining in a consortium Large Enterprises, SMEs and Academia.

Big Data Centres of Excellence (CoE)
The BDV PPP is furthering the development of the European data ecosystems as a data-driven economy. One key action is the work to support a network of Big Data Centre of Excellence to foster collaboration, share best practices and know-how among Centres, facilitate meetings of the network participants and provide expert guidance and support for the establishment of new Centre of Excellence in Europe.

A best practice framework for Big Data Centres of Excellence has been developed through an extensive survey of existing Centres of Excellence in Europe, identification of their challenges and opportunities, as well as their best practices and guidelines. The framework has been enhanced by feedback from experts within CoEs.

Contact Us
• Are you a Big Data Centre of Excellence and want to share your best practices?
• Are you a senior manager or director of a Big Data Centre of Excellence and want to be interviewed?
• Are you a new Big Data Centre of Excellence or you know of any that seeks support?

Edward Curry is a research leader at the Insight Centre for Data Analytics at NUI Galway and a Vice President of the Big Data Value Association. For further information contact him at: edward.curry@insight-centre.org

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From 2014 to 2019, Mr. Oliver Daniels was the Chief Executive Officer (CEO) of the Insight Centre for Data Analytics in Ireland. Oliver joined Insight from Avaya, where he has served as a Research & Development Leader for Contact Centre Applications for five years. Before that he held a wide variety of senior roles in technology and management, serving Nortel, ADC, and Saville Systems, based in Ireland, the UK, and France.

During his time as Insight’s CEO, he leveraged his 27 years of enterprise experience to create a world-leading data analytics research centre. In this article we spoke to Oliver, as Insight transitions to “Insight 2”, a €50m grant from SFI that will fund the centre until June 2025. We reflected on his time as CEO of Insight: the challenge with uniting the best talent in data science in Ireland under an international data analytics brand, the challenge of developing next-generation talent, and the need to nurture a vibrant data-driven innovation ecosystem in Ireland.

Edward Curry: What were the significant challenges Insight faced during your time as CEO?

Oliver Daniels: The core challenge revolved around how to show that a national research centre could bring value. The Insight Centre was created from a set of existing centres that needed to come together. This required the organisation to build a vision and a mission around a national view with an international perspective on impact. This high-level challenge can be broken down into challenges at a number of levels, including collaboration, performance, and autonomy:

INTEGRATION AND INTERNAL COLLABORATION: Insight is comprised of four co-leading universities; Dublin City University (DCU), University College Dublin (UCD), University College Cork (UCC), National University of Ireland Galway (NUIG), and this is reflected in the various interests of the centre. Making sure that there was collaboration and integration among this diverse environment and bringing out the interdisciplinary nature of the people involved, was critical. The integration of computer scientists, medical doctors, domain experts in Agriculture, Commerce, etc., was difficult. Because data science is needed in many sectors, many domains needed to be pulled together, and this has consequently resulted in management challenges, ranging from balancing academic freedom and national research priorities to balancing basic research and applied research. Working across different physical locations was also a challenge and a new experience for many in the Centre. Finally, the challenge of managing the multiplicity of stakeholders, including academics, internal Insight Centre’s staff, funding agencies, government organisations, etc., demanded significant effort.

We needed to build teams of diverse people with shared interests to create value. We drove collaboration by having regular management meetings at both operations and executive levels and by having these meeting at the different Insight locations.

EXTERNAL COLLABORATION AND PARTNERSHIP: It was important to develop real collaboration with other researchers in Ireland. The Centre did a good job here, and our effort was evidenced by the fact that the Centre now plays a catalytic role to other centres, such as the Centre for Future Networks and Communications (Connect), the Agricultural Research Group on Sustainability (ARGOS), the I-Form and the Smart Manufacturing research organisation (CONFIRM) to name a few. Insight is now seen as the key partner for data analytics in Ireland.

Partnerships are central to how Insight operates, and they are important for bringing new expertise and value, including Data Science expertise to the Centre. Further collaboration efforts are taking place in the marine domain, and there are also a lot of partnership arrangements either already established or in the making. These were achieved by scanning the relevant industry and positioning the Centre in the broader view of the world. The Centre has built a vision that is compelling.
**HIGH PERFORMANCE:** This demand was set by the funding agencies of the research Centre. Insight operates in an environment where a given set of Key Performance Indicators (KPIs) have to be met. These focus on how to bring value to the Centre, its customers and partners, so all reach their industry goals.

Meeting these high-performance targets was a constant challenge, and the Management needed to push a collective effort across the Centre to meet these goals.

**EXPERTISE:** Skills and talent are central to the success of any organisation. Attracting and engaging the right people to achieve the Centre’s vision can be a significant issue.

To nurture the correct skills and talent, the Centre maintained a very strong consultative process to get people involved. The Centre’s Management analysed skill gaps that existed across the organisation, and it added key resources where they were needed. For example, there was a deficiency in the resource mix in the area of strategic business development. So, action was taken to close the gap by securing the funding needed to hire the right expertise within the Strategic Business Development role, which helped to develop significant partnerships and collaborations.

**STRUCTURE:** The expectations from our funders was to meet high-performance targets, but this was impacted by the Centre not being fully autonomous and the need to work with all the host universities. To mitigate the impact of the challenges highlighted, the Centre’s Management evolved the structure of its operations and created new teams. This involved the development of a dedicated outreach programme, which is an important part of our Education and Public Engagement (EPE) approach. A business development team was created to engage industrial stakeholders with supports for more applied innovation to bridge the gap between research and industry.

**GOVERNANCE:** The Governance Committee had a key role in ensuring that the Centre remained true to its mandate and that it has the breadth to understand the research and the broader national brief. The Centre’s Management established two boards for industry and scientific advisory. Both advisory groups meet up to four times a year and are comprised of individuals with expertise in their areas, helping the Centre to achieve our plans.

Edward Curry: What were the key factors contributing to/enabling the success of the Centre?

Oliver Daniels: People make things work, for organisations. Young graduates and undergraduates can see that by working at Insight, they can develop themselves and do something important with their careers that they could not have done if they were not part of Insight. Therefore, people leadership has been critical to the success of the Centre.

I believe that people need to grow because they make the Centre grow. The expectation to grow is not only in terms of academic learning but also in terms of experience. At Insight, people learn to work with others across different universities and disciplines. These are transferable skills, and half of the Centre’s graduates are expected to transfer to industry.

The Insight Centre has some mandates; one of them is to foster the next generation of data scientists. That involves getting to schools and inspiring young students to pursue careers in data analytics or other related scientific fields. Insight also has to make science more accessible to the general populace. It must translate Science into something easy for non-scientists to understand. In this context, the Centre has a lot of great staff who help people (the community) appreciate everything that is done in the Centre.

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Edward Curry: What were the typical mechanisms or approaches deployed to address success factors and challenges in your Centre?

Oliver Daniels: Plan and Planning. The Insight Centre had to develop a strategic plan and an annual operational plan aligned with the KPIs that were tied to the organisation’s vision. The Management measures each of the various aspects of the operations on a monthly basis, it drives change, and it puts more energy into the areas that need support to meet their targets. Therefore, it is not just the case of ‘wait-and-see’; instead, Management puts rigour on planning and executing the continuous management of the Centre’s operations.

Management has to be ready to respond to changes in the landscape, as well as to maintain regular reviews of progress. Although Management put in place a strong drive to get the initial strategic plan, this was not just taken to be everything. Essentially, the process of planning is an important part because the plan, per se, is subject to changes and hence will need to be reassessed. To be continuously useful, a plan has to be ‘alive’, and because something might change, planning has to be revisited from time to time. Thus, an iterative planning process was necessary, knowing that the organisation will evolve and grow towards its vision and goals, as well as respond to industry trends and other environmental factors.

Although Centre has multiple co-led universities (NUIG, UCD, DCU and UCC) the management advocated to the employees and students to regard themselves as belonging to all entities. Therefore, together the team was stronger at meeting all mandates. This is simply a statement in the context of promoting unity and collaboration and in sharing tasks towards common goals. To strengthen these practices from time to time, the Centre’s Management communicates messages to emphasise interconnections and relationships among all the different physical sites.

Edward Curry: In an ideal situation, what would make Insight more successful?

Oliver Daniels: Looking at the mandate of the Centre that ranges from delivering excellent science with impacts on society, educating and delivering excellent human capital, and becoming more successful as well as self-sustaining in the future. If the Insight Centre were to become more self-sustaining in the future, it would need to have a greater level of autonomy. Achieving this, depends on how the Centre grows the right resource mix to respond to the ever-increasing knowledge and demands for Data Analytics outputs.

If the Insight Centre were given a separate legal entity status, it would help it advance further. However, this status might cause some trouble because it is not clear whether the environment in which the Centre operates is ready to handle such status.

With regards to the multiplicity of the Centre’s endeavours, including people, academics, and research areas, the Centre needs to continue to attract world-class researchers at all levels. There is a need to develop the capability to manage young researchers and national interests, as well as new ways of developing partnerships.

Regarding partnerships, the Centre needs to evolve more with multinational enterprises. Investment needs a balance of the right mix of resources to be able to deal with all the challenges. Growing non-exchequer funding is important, but it cannot dilute the core scientific funding.

As I depart Insight our €50m funding for ’Insight 2’ is secured and will be the cornerstone funding of the Centre until June 2025. The centre has excellent research, strong team cohesion, a solid business plan and support from governance, industry and scientific advisory committees. It is a sustainable research performing organisation, primed for further success.

Edward Curry: Thank you Ollie and Good Luck on your next endeavour.

...drive change and put more energy into the areas that need support to meet our targets...