



NATIONAL FORUM  
FOR THE ENHANCEMENT OF TEACHING  
AND LEARNING IN HIGHER EDUCATION

**Data-Enabled Student Success Initiative (DESSI)  
Information Booklet**

**September 2017**

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## Introduction

**DESSI's purpose is to provide support, through a National Coordinator, to institutions as they develop, or begin to explore, strategies for using data to underpin effective, sustainable student success.**

The data from students' digital footprints can be an invaluable resource for institutions, teaching staff and the students themselves. It has many applications that can enrich students' learning, wellbeing and integration into campus life.

This data can identify students that are at risk of underperforming and potentially withdrawing up to four months earlier than is otherwise possible. This gives institutions the opportunity to stage targeted, pro-active interventions which direct students to essential learning resources while there is still time for them to change their potential academic trajectory.

It can be used to alert pastoral staff to students exhibiting sudden changes in engagement which can be symptomatic of behavioural, personal or medical concerns, enabling timely, preventative interventions for students whose wellbeing may be at risk.

One of the keys to establishing an approach that delivers benefits for students, teaching staff and institutions is the development of an institutional strategy for data-enhanced student success. Such a strategy should define institutional aims and roles and map out the steps required to deliver them. Most importantly, it should recognise the value of using data as a tool but position its use within the broader context of an institutional environment that motivates and encourages students to succeed.

Through DESSI, the Data-Enabled Student Success initiative, the National Forum and its partners from across the sector aim to work with institutions to develop sustainable, well-informed student success strategies for realising the potential of the data they already hold.

### What is DESSI?

DESSI is a sector-wide initiative that aims to support institutions as they develop effective strategies for realising the benefits of student data as a resource. It focuses on the key themes of:

- Building good practice and sustainability
- Compliance with Data Protection legislation
- Identifying applicable data sources
- Maximising the impact of existing applications and services
- Using data to inform actions that effect real change
- Growing an institutional data-aware culture
- A collaborative approach in which all institutional stakeholders are involved

DESSI is supported by:

- The National Forum for the Enhancement of Teaching and Learning in Higher Education
- The Irish Universities Association
- The Technological Higher Education Association
- The Higher Education Colleges Association
- HEAnet
- EduCampus
- The Irish Survey of Student Engagement
- Quality and Qualifications Ireland
- The Higher Education Authority

## Why is DESSI relevant?

The National Forum for Teaching and Learning's recent Learning Analytics project identified a number of risks that may hamper institutions and, in turn, students from realising the full potential benefits of a data-enhanced approach to student success. These include:

- A perception of 'Learning Analytics' as a highly complex and potentially expensive specialism. On the contrary, most institutions already have the expertise, resources and services they require to begin utilising their data to bolster student success.
- A belief that the key to the effective use of data to support students is a significant financial investment in a bespoke IT analytics platform. While there are many excellent and highly fit-to-purpose products available, such an investment unaccompanied by a supporting strategy for its effective and legal use is unlikely to yield the full benefits for the institution or its teaching staff and students.
- The risk of institutions making considerable financial investments in third-party products that may prove, in the long-term, not to be fully compatible with the needs of the institution.
- The potential reputational and financial risk to institutions of using personal data in a manner that is subsequently discovered to be non-compliant with Data Protection legislation

DESSI aims to address these risks by partnering with institutions, through the National Coordinator, to support the development of tailored, itemised and sustainable strategies for using data to enhance student success.

DESSI is also extremely timely in its compatibility with themes of maximising the potential value of data that are increasingly emerging in policies and recommendations from key stakeholders such as the EU and the Department of Education and Skills. More information on the tie-ins with these policies are available in appendix 1.

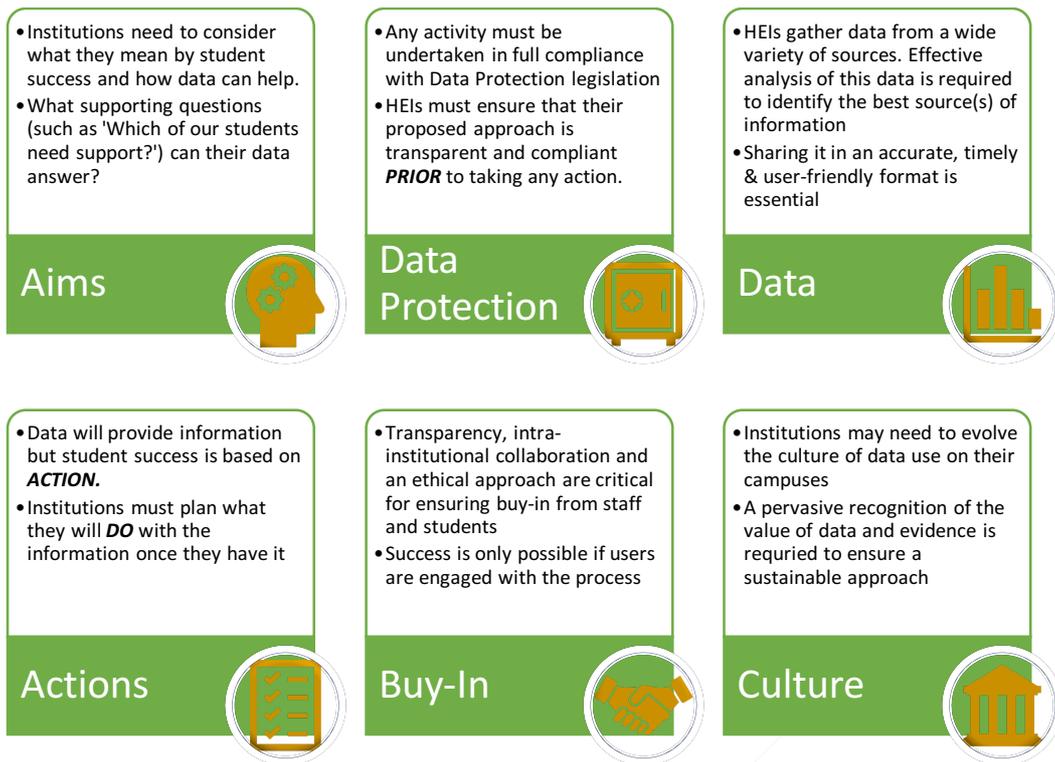
## What are the benefits for institutions that participate?

The benefits for partner institutions include:

- The opportunity to begin using data to effectively support student success. Data is a proven resource for potentially driving improvements in student learning as well as retention, progression and completion rates
- Engaging with data also gives institutions the opportunity to target resources designed to support students to those who need and will benefit from them most. This can enhance an institution's return on investment in such services
- The supported development of a data-enabled student success strategy that is tailored with the institution to be fully congruent with their strategic aims and individual needs and contexts
- Support with strategy development by the National DESSI Coordinator, who has a developed understanding of the opportunities, challenges and pitfalls that underlie a successful data-enabled approach
- A focus on maximising the benefits to be gained by using the resources already in use (such as the VLE) will enable institutions to get underway without any financial outlay.

## What is involved in the process?

Through the National Coordinator, DESSI will work with your institution to devise a bespoke strategic plan that is tailored to optimise the value of your institutional data. The process will be supported by a range of resources that will be made available to institutions and will include consideration of the following:



Further details of potential approaches an institution may wish to take to developing a strategic approach are listed in Appendix 2.

## What commitment must my institution make?

Institutions will self-select for participation in DESSI. The exact plan for the process will be tailored in partnership with each institution so you will determine the specific aims of the collaboration, who is involved, how long it takes and what steps are needed. Institutions will decide themselves how far-reaching they wish the strategy to be. The National Coordinator will provide as much or as little direct support as you decide you want.

Specifically, the following is requested:

- The nomination of an institutional Senior Champion, of an appropriate grade, that will support the development of the institutional plan for developing the strategy and embody the institution's commitment to the process
- The nomination of a primary institutional contact that will drive the process
- A commitment to undertaking a collaborative approach that is representative of the key constituencies within the institution

While there are no financial resources available to support institutions' engagement with the DESSI process, please note that all services and supports are provided without charge.

Please note also that Data Protection compliance is a key aspect of DESSI. During the first stages of the collaboration, appropriate checks and balances will be identified and assessed. These will be in place before any analysis of student data is undertaken.

## Who can participate?

DESSI is open to all Irish HE institutions, regardless of institution type, location or current data maturity.

## How can I find out more?

To express an interest in participating in DESSI, please go to <http://www.teachingandlearning.ie/learning-analytics-educational-data-mining-learning-impact/data-enabled-student-success-initiative-dessi/>. Should you have any questions or wish to arrange a site visit to your institution, please contact [lee.ofarrell@teachingandlearning.ie](mailto:lee.ofarrell@teachingandlearning.ie)

ORLA (the National Forum's Online Resource for Learning Analytics) is an online library of open access resources and case studies relating to using data to support student success. A product of the National Forum's recent Learning Analytics project, it was compiled with the help and guidance of over 60 lecturers, students, librarians, student advisors, teaching and learning practitioners and IT professionals from institutions across the country. It contains a wide range of resources that provide guidance and information to institutions and lecturers seeking to maximise the value of their data. ORLA is available at [teachingandlearning.ie/nforla](http://teachingandlearning.ie/nforla).

## Appendix 1: Policy Context

The use of data to support students is delving ever deeper into the mainstream and has begun to enter the consciousness of Institutional Managers and Policymakers. Figure 3 shows a sample of reports that are in-line with the aims and objectives of DESSI.



- Encourages the use of alumni data to enable the successful recruitment and support of international students (p.45)

**International Education Strategy for Ireland 2016-2020**



- 'A number of student attributes including prior skills, knowledge and CAO points have a predictive validity which allows "at risk" students on ICT programmes to be identified.'

- 'Institutions should review student data to identify "at risk" (ICT) students as part of institutional strategies for early engagement.' (p.15)

**NF Student Non-Completion on ICT Programmes**



- One of the key tasks highlighted as essential for the success of this plan is an increase in the retention rates of ICT students

**ICT Skills Action Plan**



- Targets include Increasing the share of 30-34 year olds that have completed tertiary education to 60% by 2020 from 52.2% in 2013 and increasing the domestic supply of ICT graduates to meet demand from 57% to 74% by 2018 (p.26)

**Action Plan for Jobs 2017**



- Data analytics is 'a fundamental element for both private sector and public sector organisations who wish to compete' (p.31)
- Across the public sector, 'there is... substantial potential for enhanced efficiency, cost savings and improved outcomes through deployment of analytics on a more widespread scale' (p.111)

**Assessing the Demand for Big Data and Analytics Skills**



- Lists 'Student Success and Completion (including data and predictive analytics)' and 'Data-Informed Decision Making' among the top three priorities for 2017

**Educause Top 10 IT Issues 2017**



- 'Student Success Technologies' has been listed as the number one priority for this group for the past two years.

**CAUDIT Top 10 Topics 2017**



## Appendix 2: Possible Aspects of Strategy Development Plan

### Senior Management Briefings

These one-off, brief meetings could be scheduled between the National Coordinator and key personnel within the institution. Their purpose is to enable a shared understanding of the institutional aims, drivers and resources upon which the data-enabled student success strategy could be founded. Participants may include, for example:

- The institution's Senior DESSI Champion
- National Forum Associate
- Representative(s) from IT Department
- Representative(s) from Teaching and Learning community
- Director of Quality (or equivalent role)
- Head of Student Services (or equivalent role)
- SU Officers

### Introductory Workshop

The purpose of a town-hall-style meeting such as this, led by the National Coordinator, is to introduce institutional stakeholders to DESSI and to collaboratively develop an approach to drawing up the strategy that is a best fit for the institution.

### Consultative Resources

In order to facilitate as inclusive a collaboration as possible, we will provide consultative resources that can ensure that all institutional stakeholders are included. These resources can inform the initiative by enabling a fuller understanding of the services and practices that exist at a local level throughout the institution and by identifying those exemplar processes that may be scalable to an institutional level to enable the HEI to achieve maximum impact with minimum investment.

### Implementation Workshops

These workshops will focus on the proactive use of institutional data to effect real change. Their focus is on answering the question 'Once we have the data, what will we *do* with the answer?' Each institution may have several workshops, depending on the number of institutional goals (eg staging effective student interventions, facilitating evidence-based teaching plans). The goal of the workshops, which will be facilitated by the National Coordinator, is to utilise the expertise that exists within the institution (eg from Student Advisors, Instructional Designers, Educational Technologists) to design processes that are based on effective practice.

### Staff Training

The National Coordinator will compile training materials that will equip institutional staff to host and organise institutional Data-Enhanced Student Success training sessions. Institutional trainers will be introduced to these materials at national Train the Trainer sessions, organised and hosted by the National Coordinator. The purpose of these institutional sessions is to introduce staff to key concepts, tools and techniques that will enhance their ability to engage

with the student data available to them and utilise it to enhance student success at a module level. It is planned that this process will strengthen a data-engaged culture in institutions.

Participation in both the Train the Trainer and institutional Data-Enhanced Student Success sessions will be recognised with National Forum PD badges.

Topics covered will include:

- Introduction to DESSI
- Introduction to analytics
- Introduction to ORLA (see below)
- Extracting data from the VLE
- Turning data into information
- Local exemplars

### ORLA Resources

ORLA (the National Forum's Online Resource for Learning Analytics) is an online library of open access resources and case studies that will support institutional project teams as they address the questions in the strategy template, enabling them to make effective decisions informed by good practice models

### Implementation Recommendations

The insights that emerge throughout the above process will enable a detailed understanding of the aims, resources, strengths and opportunities of each institution. The National Coordinator will compile this information into a series of recommendations that institutions may wish to consider as they plan for short-, medium- and long-term implementation.

### Ongoing Support

Throughout the project, the National Coordinator will be available to provide support to the institutional project team as required.