

Application Form

Institution Name

The University of Huddersfield

Originating Department

Computing Services

Contact Name (and email address)

Jimmy Dane, (jimmy.dane@hud.ac.uk)

Object of the *Project/Service*

Creation of an easy-to-use and fast communicable diseases alert system that operates round the clock and 365 days of the year warning students or staff if they might have been in contact with a student who has an infectious disease.

Description of the *Project/Service*

Background

Recent years have witnessed a number of public health concerns that have required universities to respond quickly to the threat of the spread of communicable diseases. The incidence of meningitis, bird flu, and, more recently, swine flu has created a need to quickly and easily identify and warn the study contacts of individuals diagnosed with one of these illnesses.

Objective

CDAS, the University of Huddersfield's Communicable Diseases Alert System, makes it possible for non-specialist staff to swiftly identify study contacts and to send out text and email alerts containing up-to-date advice from the Health Protection Agency.

What used to happen

Before CDAS, when an alert about a student or member of staff at the University of Huddersfield was received from the Health Protection Agency, a skilled student records manager had to manually interrogate the student records system to extract a list of study contacts, then manually send out an email alert to those affected.

This approach had two main drawbacks. First, the alert could only be generated by someone with a good knowledge and the appropriate access to the student records system. Second, there was an inevitable delay while a suitable person was available, which often meant waiting until the next working day. An additional delay resulted from the time taken to manually extract and send emails, often in the order of 2-4 hours.

Avoiding delay is vital if the progress of a disease is to be halted; minutes and hours can literally make the difference between life and death.

What happens now we have CDAS

Once the Health Protection Agency identifies that a member of the University has, say, contracted meningitis, an official notification will come in to the University

switchboard, or to the main security control hub, which is staffed 24 hours a day, 365 days a year.

Switchboard operators or security staff are able to log into CDAS and enter the name and birth date of the affected student to bring up a list of study contacts – principally those who share modules and courses with the person. CDAS undertakes a real-time interrogation of the live student record system to identify an accurate list of those concerned.

CDAS contains a set of email templates relating to the disease in question and the alert level notified by the Health Protection Agency.

Two things then happen at this point. First an SMS text message is sent to all those identified as study contacts indicating that an important health-related email has been sent to their University email account, which they should access as soon as they can. The email itself is then generated, and sent to the study contacts.

The entire process takes around 10 minutes to complete from the receipt of the notification from the Health Protection Agency to the sending of the SMS text messages and emails.

Should follow-up or reinforcing messages be needed, these can be generated using CDAS.

Email messages are also sent to selected staff in the student's school

Costs and benefits of CDAS

Costs

- About 50 hours of development time were needed to create and test the CDAS system.
- No additional software or licences are needed to operate the system.
- SMS text messages cost in the order of 4p per message to send.

Benefits

- Reduction in the delay before the University's notification process can begin, from several hours, or possibly days during weekends or holiday periods, while the right member of staff is located and gains access to the student record system, to virtually nothing with CDAS.
- Reduction in the time taken to actually send out notifications from 2-4 hours with the previous system to 10 minutes with CDAS, with associated savings in staff time.
- CDAS can be operated by staff with no special skills in student records manipulation while still ensuring that consistent and correct information is sent to the right people.

Of course the major benefit is a qualitative one – the reduction in the spread of an infection and the prompt identification and treatment of those affected by an outbreak.

Transference of best practice

CDAS is a simple system. It uses components (student records, emails, SMS text messages), that all HEIs have. Its principles can thus be transferred for implementation elsewhere with only a modest amount of development time required.

Summary

CDAS demonstrates an innovative integration of core University information systems. It streamlines a basic business process – that of notifying students – reducing the time taken, and removing the need for specialist staff to be involved.

CDAS shows a very positive return on investment. In pure monetary terms, the development costs will be offset by a relatively small number of invocations. The overall objective of reducing the harm done by the spread of a communicable disease brings a benefit that is not easy to quantify, but is nevertheless critically important.

CDAS was developed with the active involvement of the Health Protection Agency. It is an example of a productive collaboration between the owners of the business need – in this case the Health and Safety and Student Records teams – mediated by a successful implementation of a simple I.T. system.

**Supporting documentation about the *Project/Service*
Screenshots of CDAS.**

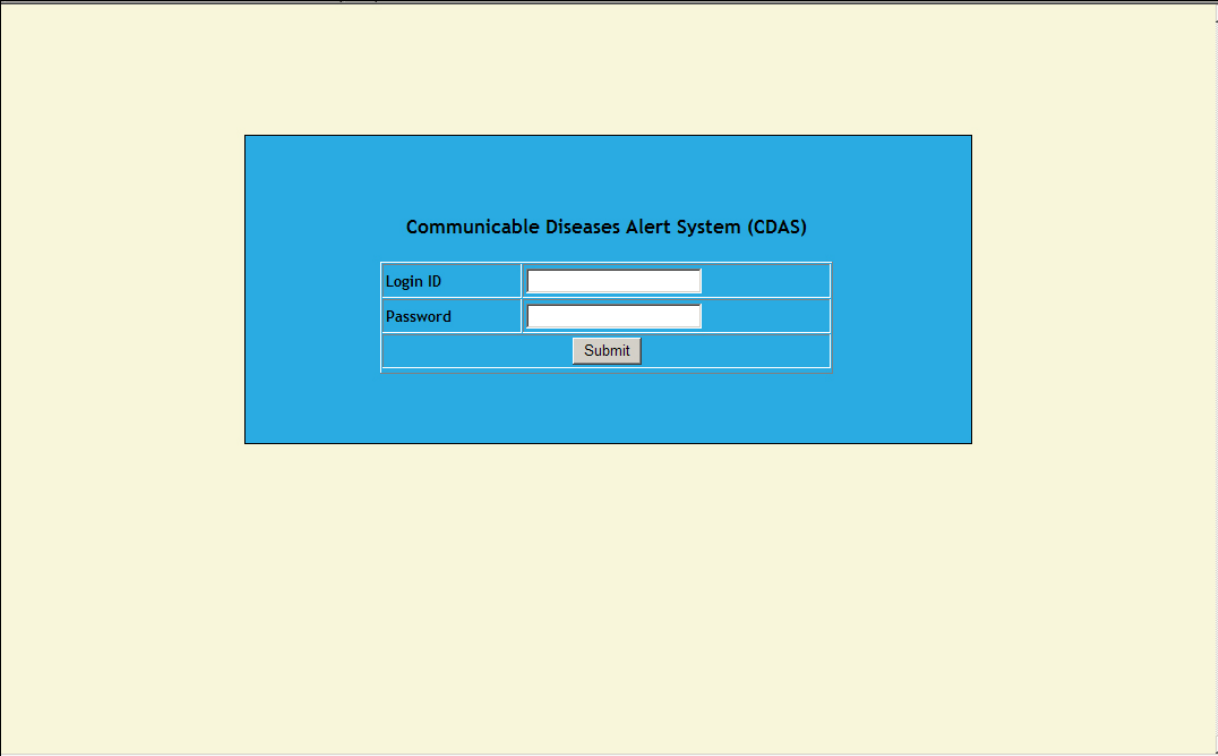


Figure 1 The CDAS Login Screen

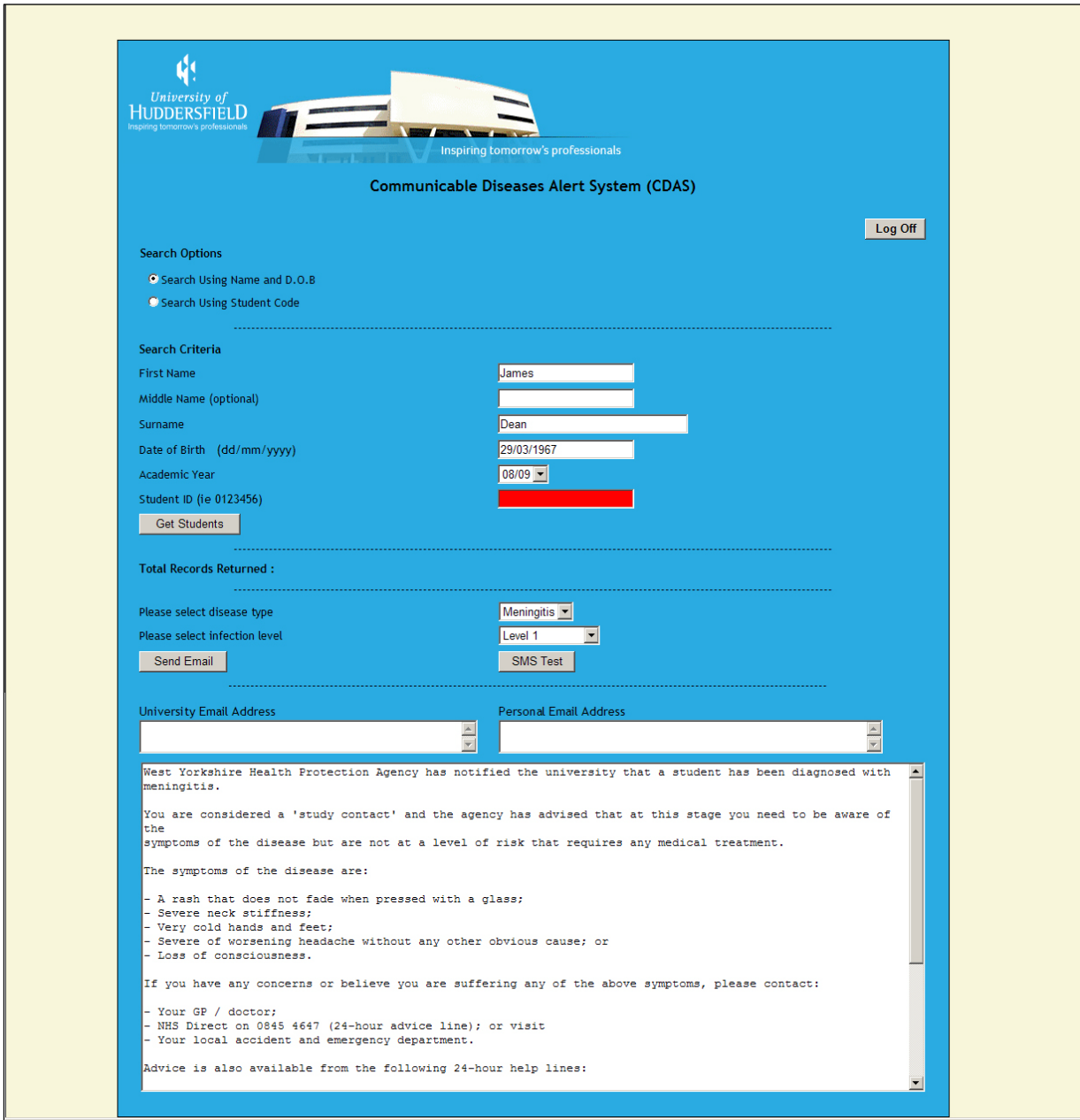


Figure 2 The CDAS Main Screen

Name of staff involved (including job titles and email addresses)

Naz Hussain, Senior Computing Officer, Computing Services
(naz.hussain@hud.ac.uk)

Huw Thomas, Planning Assistant, Student Admissions and Records Office
(huw.thomas@hud.ac.uk)

Gary Wood, Assistant Health and Safety Adviser, Health and Safety
(gary.wood@hud.ac.uk)

Support of Institution UCISA Representative

Name: Brian Hackett

When completed email the submission to execsec@ucisa.ac.uk

Please note that submission should be limited to 4 sides of A4 but may include appendices containing supporting evidence such as screenshots.