

# ISD Training Strategy Group Report

## **1. Executive summary**

IT and information skills training are becoming increasingly important in the HE sector. This report recommends that greater co-ordination be achieved in the planning and delivery of IT and information skills training at the University of Nottingham. It provides an overview of existing arrangements for training before suggesting ways in which these could be improved. Several alternative ways in which these improvements may be implemented on the ground are identified. The report concludes with a summary of recommendations.

## **2. The current situation**

There are currently a wide variety of IT and information skills training opportunities offered to staff and students of the University. Training is made available centrally by ISD (for all staff and students), the Graduate School (mainly for research postgraduate students), the Training and Staff Development Unit (TSDU, for staff and, to a lesser extent, research postgraduates), and the Business Systems Development Unit (for staff). There is however little co-ordination of training activity between these organisations. The training is often carried out by different members of staff, it is advertised in different places, it is administered in different ways and supported with different documentation. As a result, there is no clear division of responsibilities between the different stakeholders, and both gaps and overlaps in training have occurred. There is no clear mechanism across the different organisations for proposing and setting-up new training activities. No one is taking a strategic overview of IT and information skills training in the University.

## **3. ISD Training Strategy Group**

In view of these problems, ISD decided to review the training activities its staff carried out with a view to being better able to co-ordinate activity with the other training stakeholders in the University. An initial 'brainstorming' meeting for ISD staff was held in January 2000 to analyse the current situation and to generate ideas about how training could be improved.

Following this, an ISD Training Strategy Group (TSG) was set up, composed of staff from across ISD (see Appendix), to take the ideas from the brainstorming meeting forward and to make recommendations to the Director of ISD. The group had the following remit: 'to identify existing training mechanisms, practices and procedures and investigate their current and future effectiveness with the aim of integrating mechanisms where possible across the Information Services Directorate in order to be more effective and to present a more unified image to our users.' This report is the outcome of the TSG's work. The group has taken into account experience at Nottingham and also good practice in other HEIs. A draft of the report has been circulated widely amongst ISD staff for comment.

## **4. Definitions**

'Training', for the purposes of this paper is defined as 'planned training', covering the areas of information technology and information skills. It does not here include on-the-spot help from Enquiry Desks or Help Desks. However, the TSG does acknowledge the importance of feedback from these frontline services to help identify further training needs.

Training may include regular advertised standard sessions or *ad hoc* tailored sessions. It may be bookable or available on a drop-in basis. It may also include induction activity associated with the roll-out of specific packages, such as GroupWise. Training may take the form of face-to-face sessions, electronic learning packages (CAL and web-based packages) or documentation.

At some points, IT and information skills training cannot be easily separated from other training and development activities. For example, a training session in using PowerPoint may be very closely related to a presentation skills session. The links between IT and information skills training and other training should be borne in mind by managers when looking at the way they are delivered.

## **5. Training needs**

Section 6 identifies possible IT and information skills training needs within the University. It is however recognised that there is currently inadequate information about the training needs of members of the University. The needs of students are partly being identified by TEO projects (PADSHE, and other 'key skills' projects); other possible initiatives for identifying student needs are also mentioned below. The needs of staff are less clear. It is therefore recommended that a more extensive skills audit be carried out to identify training needs for staff and how best to provide for them. It may be possible for this to be done internally by the University Survey Unit or TSDU, or by an external agency. Mechanisms for monitoring IT training needs on an ongoing basis should also be considered.

## **6. Training required in the University**

The TSG has identified a number of types of training activities which it believes should be offered centrally to members of the University (listed in Table 1). Table 1 illustrates the range of possible training activities; the actual list of training activities will depend on further discussions, available expertise and funding arrangements.

Table 1 includes sessions which are scheduled and can be booked, sessions which can be tailored on an *ad hoc* basis, and drop-in sessions. Ongoing consideration should be given to which of these options is best for specific sessions. Many of these sessions are currently offered in some form by some training providers in the University, where this is the case the current provider is listed in Table 1.

### **6.1 Trainee groups**

In summary, it is recommended that training should be available to the following groups:

#### **6.1.1 Staff**

A large number of scheduled and bookable sessions should be available to staff. This includes academic, academic-related, technical and clerically -graded staff. Other *ad hoc* sessions and other training activities may be made available as recommended elsewhere.

#### **6.1.2 Research postgraduates**

Research postgraduates should be able to attend most of the sessions for staff (probably alongside staff and being given equal priority). Currently, many of the above sessions are provided by the Graduate School independent of the provision for staff.

#### **6.1.3 Taught postgraduates**

Taught postgraduates may, where appropriate, attend some sessions geared towards staff and research postgraduate students. In addition, the following would be appropriate:

- IT induction (Open BITS) (ISD) – drop-in
- Tailored sessions on information skills arranged by their course tutors in liaison with subject librarians

#### **6.1.4 Undergraduates**

Much of the training of undergraduates should be carried by their departments/schools. It is however appropriate for some training to be delivered centrally:

- Library induction (ISD)
- IT induction, basic IT skills (UG BITS) (ISD/TEO)
- Library skills – intermediate
- Library skills – advanced for project work
- Open 'Getting started...' sessions (half an hour at lunch time) e.g. Web of Science, e-journals, resources in different subject areas etc. – drop-in

Intermediate and advanced library skills should be arranged by course tutors in liaison with subject librarians. More work could be done to deliver some of this training through networked learning packages (see below).

It is recommended that the whole issue of undergraduate IT and information skills core competencies should be investigated further (although this is already beginning to happen in some parts of the University). It would be useful to identify formally core competencies expected of students and to consider how best these can be taught to students. The matter should be taken forward by another group consisting of representatives of teaching staff, ISD, TEO and other interested parties. Consideration should be given to how the wider issue of 'information literacy' can be incorporated more explicitly into existing modules and whether special modules should be provided in this area. The question of assessment should be considered as part of this.

**Table 1: An illustration of IT and information skills training required in the University**

This is not necessarily an exhaustive list but is designed to illustrate the broad range of activities that is being recommended.

Training	Should be offered to *	Ideal arrangements	Currently offered by*	Training material now available	Comments
<b>Introductions</b>					
Introduction to computers/IT resources	S, PG (R)	Bookable, scheduled	TSDU, ISD	ISD001, ISD003, ISD010, ISD013, ISD101, ISD102, ISD103	ISD currently offers paper and web guides and <i>ad hoc</i> sessions
IT induction (BITS)	All	Scheduled, drop-in	ISD/TEO	ISD001, ISD003, ISD010, ISD013, ISD101, ISD102, ISD103	
Library Induction	All	Scheduled tours and/or other means	ISD		
<b>MS Windows and Office etc.</b>					
Windows 95/98 and Office overview	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
Word – beginners	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
Excel – beginners	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
Word – intermediate	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
Word – advanced	S, PG (R)	Bookable, scheduled	TSDU, Grad. Sch. (ISD CBT)	CBT via NAL	A number of sessions are currently offered
Excel – intermediate	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
Excel – advanced	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	A number of sessions are currently offered
Access – beginners	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
PowerPoint – beginners	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
PowerPoint – intermediate	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
Access – intermediate / advanced –	S, PG (R)	Bookable, scheduled	TSDU (ISD CBT)	CBT via NAL	
SPSS – beginners	S, PG (R)	Bookable, scheduled			

<b>Group Wise</b>					
Group Wise – email	S, PG (R)	Bookable, scheduled	ISD	Docs ISD013, ISD014 CBT via NAL	
Group Wise – groupware	S, PG (R)	Bookable, scheduled		CBT via NAL	
<b>UNIX</b>					
UNIX – beginners	S, PG	Bookable, scheduled	ISD	Docs ISD 301, ISD 308 etc	
UNIX – advanced	S, PG	Bookable, tailored	ISD		
<b>Programming and Scripting</b>					
Java	S, PG (R)	Bookable, scheduled	Grad. Sch.		
C	S, PG (R)	Bookable, scheduled	ISD	CBT via NAL	Currently a 4 day course
Visual basic	S, PG (R)	Bookable, scheduled	Grad. Sch.		
<b>Administrative</b>					
Agresso – beginners	S	Bookable, scheduled	TSDU/Finance		
Agresso – advanced	S	Bookable, scheduled	TSDU/Finance		
Agresso – logistics	S	Bookable, scheduled	Procurement Office		
Saturn – beginners	S	Bookable, scheduled	ISD		
<b>World Wide Web</b>					
Using the Web – introduction	S, PG (R)	Bookable, scheduled	ISD, Grad. Sch./ ISD		
Searching the Web	S, PG (R)	Bookable, scheduled	ISD, Grad. Sch./ ISD	Netskills	
Web authoring – HTML	S, PG (R)	Bookable, scheduled	TSDU/ISD	Netskills	

Dream Weaver	S, PG (R)	Bookable, scheduled			
Using the Web in learning and teaching	S, PG (R)	Bookable, scheduled	TSDU, ISD		The TSDU course is currently run by broad subject area and has ISD input
Linking databases to the Web	S, PG (R)	Bookable, scheduled			
Using library research tools – by subject	S, PG (R)	Bookable, scheduled	Grad. Sch./ISD		
<b>Other information skills</b>					
Web of Science	S, PG (R)	Bookable, scheduled			
Medline	S, PG (R)	Bookable, scheduled			
Other databases	S, PG (R)	<i>Ad hoc</i> , tailored			
Sources in various subject areas – by subject	S, PG (R)	Bookable, scheduled	ISD		
E-journals – by subject	S, PG (R)	Bookable, scheduled			
Citing references and bibliographic software	S, PG (R)	Bookable, scheduled	ISD		
Understanding ATHENS	All	Scheduled, drop-in			
‘Getting started...’ courses – e.g. e-journals, Web of Science, electronic resources for subjects etc	All	Scheduled, drop-in			These sessions could be run at lunch times for say half an hour
<b>Telephone services</b>					
Guide to telephones	All	Paper/web guides	ISD	Docs ISD201 -207	Some sessions are run to address specific needs

\* S = Staff (including academic, academic-related, technical and clerical staff)

PG (R) = Postgraduate research students

PG (T) = Postgraduate taught-course students

UG = Undergraduates

CBT = Computer Based Teaching

NAL = Novell Application Launcher

## 6.2 Special considerations

### 6.2.1 New training sessions

A clear mechanism should be put in place for proposing and approving new training sessions. This would at the very least require some formal dialogue between the different training organisations (see below).

### 6.2.2 Induction

It is suggested that consideration be given to providing more induction training for new staff. This may include a general introduction to ISD as part of the existing staff induction. Consideration may also be given to ways in which a baseline in IT competency can be reached for staff, especially new staff. This could perhaps be included in the existing PGCAP course for academic staff. Use of qualifications, such as the European Computer Driving Licence (see below) may be appropriate here.

For undergraduates and taught-course students, the current UG BITS and Open BITS sessions provide a valuable introduction to IT facilities in the University. These are well received and should be continued. Students are currently introduced to Library Services by a tour. Consideration should be given as to whether this is an efficient use of staff time. The possibility of other means of induction (such as an electronic learning package, a video, or audio tours) to replace or supplement the existing procedures should be considered.

### 6.2.3 Part-time staff and students

Special provisions should be made where possible for part-time staff and students. Possible provisions may include evening or weekend training sessions, tailored documentation, and remotely-accessible web-based materials (see below). Additional provisions of this sort would have to take account of systems development and upgrade activity which currently takes place during some evenings and weekends.

### 6.2.4 Roll-out training

When a new system or software is introduced (e.g. Group Wise) training should be provided as part of the implementation process. When the initial round of training is complete, training in the application should then be provided on a scheduled and bookable basis as above.

### 6.2.5 Tailored sessions

Many of the above sessions may be tailored to individual groups and arranged on an *ad hoc* basis for them. This should be encouraged.

## 7. Advertising and Marketing

### 7.1 Training directory

There should be a single Directory of training sessions available on both paper and the Web. As far as possible, the paper and Web variants of the publication would be derived from a single source, with most of information being held on a database. The Web version of the Directory should be searchable from various views and should be kept up to date (some work on developing such a Web facility is already beginning in ISD). The paper version could be distributed at the various key points in the year to staff and research postgraduates. (At present, the TSDU Newsletter covering the majority of training sessions for staff is distributed to staff only). The Web version of the Directory should also include an online booking system.

### 7.2 Scheduled and bookable sessions

All specific IT and information skills scheduled and bookable sessions (e.g. the majority listed in Table 1) should be advertised in the Directory.

### 7.3 Drop-in sessions

These should be advertised in the Directory, through posters and flyers in ISD sites and elsewhere.

#### **7.4 Tailored sessions and targeted advertising**

Many training sessions may be better delivered to groups of people from a single department/school. The fact that these are available should be advertised in general terms in the training Directory. In addition, subject librarians should compile portfolios of sample sessions to show to tutors interested in arranging sessions for their students. Other publicity might include posters, and contact with IT or Library representatives or Staff Development Officers.

### **8. Training the trainers**

It is recommended that serious consideration be given to ways of training staff who are carrying out IT and information skills training. Training in presentation techniques, presentation technologies, and awareness of trainee learning styles are examples of important areas which might be covered. Policies and procedures should be put in place for training the trainers and updating their skills.

### **9. Administration**

At present, different training sessions are administered in different ways by the different training providers. For instance, there are a number of booking systems in place and these do not currently interface well with each other. There have been communication problems between ISD and TSDU in the area of booking in the recent past.

Administration of bookable training sessions should be dealt with in a co-ordinated way and ideally by a single unit (although this will depend of how training is managed in the future, see section 15). This unit would:

- Record all training sessions
- Assign unique codes to each
- Co-ordinate the production of marketing material
- Maintain the training Directory (paper and Web versions)
- Book training venues
- Receive and confirm trainee bookings
- Inform trainers of trainees
- Assist trainer in organising support materials
- Record attendance and evaluation feedback
- Analysis of bookings to inform future training arrangements

There should be clear booking arrangements for sessions. Some form of automated registration for training sessions should be investigated. The use of existing administrative databases in this should be considered where possible.

### **10. Evaluation**

New forms, including a set of standard elements, should be designed for use in all training sessions. Serious consideration needs to be given to how the results from these forms can be analysed and used to inform future training sessions.

### **11. Training materials and documentation**

At present, documentation for similar courses may be developed separately by different training providers. Greater co-ordination of the production of documentation should be encouraged. Greater standardisation of content, look and feel, layout, and numbering of documentation would create significant advantages for users.

Where possible copies of documentation and presentations should be made available on the training web site for users to download at any time. Procedures should be put in place to ensure that online material is kept up to date.

## **12. Innovative training methods**

As well as making documentation more easily available online, consideration should be given to providing more training itself online. This training might either be bought -in or home-produced. Once available, it could be used by large numbers of trainees and would be of particular use to part-time and distance learners. It has been suggested that ISD could apply for funding from TEO's Strategic Development Fund for projects.

## **13. External organisations and qualifications**

It is recommended that consideration should be given to using materials or offering qualifications provided by external organisations. The use of externally generated materials already happens in some areas. For example, extensive use is made of Netskills materials. The possibility of using material like this should be considered more widely.

Consideration should also be given to promoting external qualifications, such as NVQs and the European Computer Driving Licence. In the case of the latter, the University should investigate becoming an accreditation centre for the ECDL and encouraging staff and students to take the qualifications.

## **14. Charging, budgets and resources**

Members of the TSG are generally agreed that charging for sessions provided by University support services would not be appropriate at Nottingham at present and would be likely to discourage take-up of training. Charging for non-attendance should if it was felt be continued. Charging for any courses provided by external organisations was felt to be reasonable. In some cases, charging for documentation from external organisations (particularly reproduction costs) may also be appropriate.

Training still needs to be funded of course; and it is not cheap. Depending on how these recommendations are implemented (see section 15), the University should ensure that sufficient resources (funding, the time of staff with appropriate skills etc.) are available to support and enhance training. IT and information skills training is becoming increasingly important in the University and this should be recognised in the funding arrangements. Many of the recommendations in the report have funding implications. These include the carrying out of a training needs analysis, providing new training sessions, developing new online training packages, preparation of software to training administration and marketing, implementing procedures for training the trainers, accreditation of training, etc. Training is resource-hungry in terms of staff time. It also requires a robust technical infrastructure.

## **15. Managing training**

The recommendations of the TSG could be implemented in a number of ways, each involving different levels of co-ordination and management structures.

### **15.1 'Co-operation model'**

A great deal could be achieved with greater co-operation between the training stakeholders in the University. A formal training steering group should be appointed with representatives from ISD, the Graduate School, TEO and TSDU. This steering group would oversee training activity, approve changes and additions to the training portfolio, and co-ordinate advertising and administration. The different stakeholders may also come to an understanding about who is able to attend different sessions. For example, the Graduate School may allow staff to attend some of its sessions if similar courses are not offered by TSDU (and *vice versa*).

This model would have the advantage of bringing all the players together. It would however still present the problem of co-ordinating administration. The remit and responsibilities of the steering committee would have to be very carefully defined. Problems with the relationships between the training organisations may however remain.

### 15.2 'Customer-contractor model'

An alternative might be a 'customer-contractor model'. This would involve one organisation being funded by the University to identify training needs and provide training. It would commission training from other organisations as necessary (this might include buying-in provision from external bodies). If this was the case, it would still be necessary to set up some kind of steering group (consisting of representatives from different training organisations in the University) to take a strategic view of training.

The advantage of this approach would be that it might lead to a more systematic approach to training as it would be planned and administered essentially by one body. The major disadvantage would be that it would be in danger of excluding certain stakeholders from decision making and that it would require the introduction of new funding structures and relationships between the players. ISD would have to make sure it was in a position to win contracts.

### 15.3 'Convergence model'

A more radical option would be the 'convergence model'. In this scenario a single University IT and Information Skills Training Unit would be formed. This would consist of IT trainers currently from the different organisations (plus administrative support staff) who would be brought together into the same organisation. This organisation would organise, advertise, and administer training and deliver much of the core IT training. Staff from other parts of the ISD and the University would still be involved in delivering other training where appropriate.

This model would have the advantage of creating a much more co-ordinated approach to training. It would provide a framework for greater consistency in advertising, administration, and documentation. The main disadvantage of this system would be a political one. Many members of the TSG feel that this unit should be based in ISD but it may also be possible to have a free-standing unit or one linked to other existing organisations (with their remits expanded). In any case, managing the creation of the Unit would be a very sensitive issue.

## 16. **Recommendations: summary**

1. Ways of achieving greater co-ordination of IT and information skills training should be investigated and where possible implemented.
2. Consideration should be given to carrying out a skills audit and training needs analysis, particularly of University staff.
3. A range of training sessions should be provided to staff and students in the University. Examples of these are listed in Table 1.
4. Consideration should be given to how sessions can be delivered: as scheduled bookable sessions, *ad hoc* sessions or drop-in sessions.
5. A new set of 'Getting started...' drop-in sessions should be introduced by Library Services.
6. A group consisting of representatives of teaching staff, ISD, TEO and other interested parties be set up to consider formally core competencies in IT and information skills for undergraduate students and how these can be achieved.
7. Consideration should also be given to encouraging a baseline of IT and information skills competence amongst University staff.
8. A clear mechanism should be established for proposing and approving new training sessions.
9. Consideration should be given to induction of staff and students in IT and library facilities. New induction methods should be considered.
10. Special consideration should be given to the needs of part-time staff and students in the area of IT and information skills and mechanisms be put in place to ensure they can receive training.
11. Tailored training sessions should be encouraged and explicitly advertised.
12. Training sessions should be advertised in a training Directory available on paper and the Web. The paper version should be distributed to staff and postgraduate research postgraduates. The Web version should be kept up to date and be searchable. Online booking forms should also be available.
13. Other advertising, including posters, flyers, contacts with Library Representatives etc., should be encouraged.

14. Methods of training the trainers should be reviewed. Policies and procedures should be put in place to ensure that trainers are equipped to train effectively and that their skills are kept up to date.
15. Administration of training should be co-ordinated to a much greater extent. Ideally a single unit should deal with administration and ensure that certain procedures are followed.
16. Ways of automating registration procedures for sessions should be considered.
17. Ways of making evaluation more systematic should be considered.
18. There should be greater co-ordination between the training organisations in the University on producing documentation to support training. Greater standardisation should be promoted.
19. Documentation from training sessions should be made available online wherever possible.
20. The use of innovative electronic training methods should be promoted.
21. The use of externally generated training materials should be considered where appropriate.
22. Consideration should be given to the adoption of external qualifications. In particular, the adoption of the European Computer Driving Licence should be investigated.
23. The direct charging of trainees for attendance at sessions or for materials should be avoided where possible.
24. Sufficient resources (funding, time of staff with appropriate skills, etc.) should be made available by the University to support and enhance training in the future.
25. The relationships between the different organisations currently involved in training should at the very least be clarified and communication improved.
26. Consideration should be given to promoting greater co-operation between the different players. The setting up a training steering committee consisting of representatives from the different organisations should be investigated. The remit of such a committee would have to be clearly defined but wide ranging enough to make a difference.
27. The possibility of creating a single University IT and Information Skills Training Unit should be given serious consideration.

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### **Appendix**

Members of the ISD Training Strategy Group:

- Stephen Pinfield, chair (Library Services)
- Deborah Bragan-Turner (Library Services)
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