



Information Strategy

1. The University of Cambridge faces increasing demands for fast, efficient and accurate management of information in all its forms. An Information Strategy has been developed to help all in the University to respond to those demands. Information is a concept that encompasses all kinds of information whether held in a book in library, as a set of raw research notes or in the form of key financial data.

The Management of Information at Cambridge

2. The University of Cambridge is a *knowledge-based* institution *par excellence*. The *raison d'être* of the University is to be devoted to the maintenance, development and advancement of all principal branches of scholarly knowledge within an environment which demands the highest attainable level of academic standards in teaching, research and the wider dissemination and exchange of knowledge and information. An *Information Strategy* should support this objective and become a key component in the overall strategy for the University itself.
3. The University of Cambridge is also a complex institution in which decision-taking is both diffuse and devolved, a reflection of its self-governing and democratic status. The overall objective should be that information systems are managed in such a way as to maximise benefit to users, whilst achieving an acceptable level of ease of maintenance and cost over the long term. The strategy is being developed with express intent of putting the users' needs and aspirations first, rather than attempting to construct a "top down" approach.

Information and its management - general principles

4. All information systems, from collections of manuscripts to sets of scientific data, embody similar, if not identical *functions*, viz:
 - (i) the *capture or acquisition* of information, in whatever form;
 - (ii) its *indexing, collation and presentation* under the relevant *taxonomic* rules;
 - (iii) its *day-to-day management*, and its *maintenance, preservation and archiving* over an agreed time span, which may be relatively short-term or may be permanent, and includes the period when it is no longer needed to serve its original purpose;
 - (iv) appropriate *cross-reference* to other allied information systems;

- (v) provision of *controlled access* and *availability*, which reflect the purpose for which that set of information has been brought together.
 - (vi) ensuring the *security* and *integrity* of the information set, both physically and with respect to content.
5. In view of this, a *core set of principles* should be applied to all information systems within the University, whatever their nature and purpose:
- (i) should be clear who *owns* each piece of information, who is responsible for maintaining and updating it, who has the right to alter it and who is permitted to access it;
 - (ii) *information* should be acquired *once only* and the definitive version should be stored and kept up to date by its owner(s) as the primary data set;
 - (iii) *standards* should be adopted across the University for all aspects of information management where data have to be *exchanged*. This should include, especially, the categorization and indexing of data, the exchange of data, user interfaces to information and document formats;
 - (iv) *authorised users* should be able to add information to data drawn from central databases and, if approved, to return such 'added value' information to the central database;
 - (v) a *security policy* must be put in place covering: *confidentiality* (protecting sensitive information from unauthorised use) and *availability* (ensuring that information can always be accessed by authorised users) and *integrity* (knowing that it is accurate and up-to-date);
 - (vi) a *records management policy* must be put in place, for all types of information, to determine what should happen to all information and data (both paper and electronic) after it has ceased to be of relevance for administrative or immediate academic purposes and to ensure that *archived* electronic records, in particular continue to be readable as technologies change. Data will constantly move from one context to another as its currency changes but must remain accessible over time.
 - (vii) As *web browsers* are increasingly serving as a vehicle both for delivering information to users and to provide a standard interface for users to interact with information, a *web strategy* should be developed covering the University's web presence and containing guidelines to be observed by all those who provide information *via* this process.

These principles comprise the *long-term aspirations* of the Information Strategy of the University.

Medium Term Objectives

6. These objectives serve to support and work systematically towards these aspirations:
 - (i) *Electronic Dissemination.* The medium and long term strategies should be for the *primary means of disseminating information* within the University to become *electronic*. This would, in due course, have the effect that transmission of paper files would be phased out and printing would be entirely local, except for essential legal purposes.
 - (ii) *Hard Copy.* As more and more facilities for electronic access become available, it will become easier for central production and physical distribution of hard copy documentation to be reduced. However, it has to be recognised that *printing locally* raises substantial resource and other real practical implications.
 - (iii) *Research and Archiving.* Guidance on, and material support for, maintaining running records of continuing raw research output should be provided, either as a departmental responsibility or via a central institutional repository such as the University Library's "D-Space" resource.
 - (iv) *Individual identifier access.* Access to information and/or data should become *person dependent* and should *reflect the different roles of the individual*, thus allowing them to access and manipulate information wherever they are by identifying themselves to the system, and not be dependent on a particular location or network.
 - (v) *Data Protection and Freedom of Information* legislation. These are statutory requirements which need to be promulgated thoroughly and their implications understood by all those affected.

Next Steps

6. To give practical voice to these principles, work has already begun in several identified areas of activity, such as the development of administrative, financial and business systems, improved intranet, internet and search engine access, records management and archiving etc. Piece by piece, these disparate components are being brought together to form a comprehensive plan to bring the information strategy into a working reality.

Users

7. The whole of this Information Strategy has been consciously developed with users interests as paramount. Users are not disembodied units of account but real people who, in the world of academic endeavour, work amongst their books and papers, or in an office or laboratory, and use the world-wide-web to explore and contribute to the body of knowledge of their discipline or activity. They communicate with colleagues and students; find out what they need to

know to manage their working lives and share information and ideas. They also need to gain access to information necessary for them to carry out their administrative responsibilities smoothly, and ensure that records are properly maintained and archived. Associated with all this, they look for ways in which the fruits of their labour can be preserved for future reference and become a permanent part of the corpus of knowledge.

8. This is the way Cambridge is. The Information strategy should seek not to supplant this ethos but to support it, and to enhance the lives of those who work within it.

[14th June 2004]