



Development of an ICT Strategy for the Collegiate University

Prof. Paul Jeffreys

<http://www.ict.ox.ac.uk/strategy/>

*(How to work together to make sure we define and meet the ICT needs of
MPS Division and create an ICT Strategy which is joint-owned)*

[Happy for interruptions, also for feedback offline ict@ox.ac.uk]



Two activities – not to be confused!



History:

- Summer 2004, Prof Paul Slack – asked for ICT Strategy to be started
- September 2004, V-C requested ICT Strategy, and asked to address desktop in Central Admin (Libraries also needed attention)

Two projects forthcoming:

- Enhanced Computing Environment (ECE)
- ICT Strategy

Subject of this presentation is the 'ICT Strategy', but 2 slides on ECE...



Enhanced Computing Environment

Initial implementation of common
computing environment across three units



“ECE project”



ECE Central Team: Common enhanced computing environment

- Recommended in OUCS and OULS reviews
 - Address:- desktop/network/servers (nb IBM concern re. network)

Central Admin: responsible for more than 1100 desktops

OULS: responsible for c.1200 desktops

OUCS: responsible for c. 300 desktops

Crucially important that new central ECE services - absolutely first rate
Fundamental challenge is ‘change management’

ECE Consultant recruited to define requirements and specify ECE
ECE Deployment Manager – offer made

- > Independent and fresh approach to deliver optimised environment
- > Will be offered to the wider University on cost recovery basis...



ICT Strategy Exercise



Communication



For both activities:-

- Widespread consultation crucial
- Transparency and information exchange vital

Plans already presented to:-

- FCPSG
- PRAC
- Council
- ICT Strategy Sub-committee
- MSD
- ICTC
- ITSS Conference
- Division Heads
- One day discussion with John Hosking (IT Director at Auckland)
- Social Science Divisional Board
- P-V-C Education
- Junior Proctor
- IT Users' Group
- Colleges' IT Group
- UCLA

4 Newsletters; <http://www.ict.ox.ac.uk/strategy/news/>



Forthcoming Meetings



ITSS Workshop to discuss ICT Strategy

- 5 December; OUCL
- Open event for IT support staff within collegiate University

New ICTS Seminar Series

- 18 Jan – 8 Mar; 12.30-13.30 OUCS
- Highlighting new or planned ICT services
- OxGrid, FroDo/OWL
- Access management developments

Gartner ECE Operating Model Workshop

- End January
- Discuss three ECE models

ICT Strategy open meeting(s)

- February/March

And ... period of consultation after submission to V-C in April 2006



Background: need for change



Prompt – need for change?



Internal audit found IT provision to be good in 2004

- In many units the service is good; but not all

Unfinished IT framework dating from 1999

V-C, Gartner, others - all stress that change is needed

- “In less than 3 years – uncompetitive”

Why? ... At number of levels:

- IT support:
 - Replication of services (tens of email servers, idle clusters..)
 - Unequal quality of service
 - Functionality (eg college/department)
 - Best use of resources
- Overall service:
 - Optimise security
 - ‘Best practice’
 - Means of reaching agreement (wifi, calendar, authentication..)
- Management and investment:
 - No ability for University (academics) to set ICT priorities
 - No ability to create 5-year plan for expenditure
 - No ability for value-added (eg digital preservation, knowledge management)



IT Organization: Processes and Structure



Siloed Structure

Advantages:

1. Local ownership
2. No centre reliance
3. Changes easy
4. Know your ITSS
5. Good connection
ITSS and discipline

Integrated Structure

Advantages:

1. Reduce replication
2. Flexible ICT fabric
3. Uniform provision
4. ICT priority setting
5. Suitable governance



V-C's Oration



“ ICT is an integral component of the fabric of the University because it underpins our research, teaching, and administrative activities. **Our current and continuing investment in ICT across these activities is significant and requires careful monitoring.** In order to meet the relevant objectives in the Corporate Plan, **an ICT Plan will be developed this year detailing the principles and processes necessary to deliver optimal, cost-effective ICT which will satisfy the University's performance standards.**”



V-C's launch of ICT Strategy exercise



Three main points, summarised as follows:

- The University's draft corporate plan includes a firm commitment to developing a coherent ICT strategy by April 2006.
- Secondly, there would never be sufficient resources to meet all of the University's aspirations. This underlined the importance of **using, to the best possible effect, resources** provided for support activities such as ICT.
- Finally, **one of the University's great strengths is its federal structure** and none of the thinking behind the establishment of the ICT Strategy Steering Group challenges the federal nature of the University. Indeed, conversely, there is **scope for a more coherent ICT strategy and set of policies to underpin the enhanced fulfillment of individual aspirations.**



An adventure!



Trying something new-

- Bottom up approach through set of Work Tasks (WTs)
- Each WT given an initial remit:
 - Ask ICTS SG – is everything covered through the WTs?
 - Undertake ‘Landscape Survey’ to see if ICTS SG missing anything
 - <http://www.ict.ox.ac.uk/strategy/oxonly/sg-papers.xml>
- Each WT – chaired by member of ICTS SG, half members SG
- First task of each WT is refine its remit, set membership
- **Everything** related to WTs available on the web
- Gantt chart defines interdependencies, coordinates through manager
- Outcome uncertain, what will be delivered?

Being observed by MSc student from SBS

Personnel Committee interested in approach

Real challenge:-

- Bring together outputs from WTs
- *Strawman* Strategic Plan crucial (thank you Mike G!)



Work Tasks <http://www.ict.ox.ac.uk/strategy/worktasks/>



A: Description and Goals endorsement and Gazette Publication (Paul Jeffreys)

B: Ongoing Consultations (Alan Gay)

C: University Strategic Objectives and Plan (Paul Jeffreys)

D: ICT Requirements for Collegiate University (Anne Trefethen)

E: Federated Environment and Governance (David Watson and Paul Jeffreys)

F: ICT Consultant and Team Interface (Paul Jeffreys)

G: External Research (Nigel Herriott)

H: Large Scale Investments (Paul Jeffreys)

I: Timescales and Costs for Collegiate University (Bill Macmillan and Sebastian Rahtz)

J: Development of Strategic Plan (Paul Jeffreys)

K: Long Term Future-Stating (Michael Fraser)

			A Gazette	B Consult	C Objectives	D Requirements	E Governance	F Consultant Interface	G Other UK Universities	H Large Investments	I Time + costs	J Strategic Plan	K Future- Stating
Chair CITUG	Jo	Ashbourn	X	X									
Chair ITUG	Pete	Biggs	X			X	X				X		
Acting EM	Lou	Burnard	X					X					
Divisions	Keith	Burnett					X					X	
CIO Manchester Uni	Mark	Clark						X			X	X	
Software Eng & Cont. Ed	Jim	Davies						X					
Social Sciences	Jurgen	Doornik											
Vice-chair ICTC	Bill	Dutton					X/C						
Microsoft	Jerry	Fishenden								X			
Tech Sec.	Mike	Fraser							X			X	L
OUCS	Alan	Gay		L		X							
Computing Lab	Mike	Giles				X				X		X	
Reading Uni	Annette	Haworth	X								X	X	
IBM	Nigel	Herriott							L				
ICT Director	Paul	Jeffreys	L	X	L	X	L	L	X/C	L	X	L	X/C
Acting Dir. OUCS	Stuart	Lee					X/A		X			X	
PVC	Bill	Macmillan									X		
Humanities /HoH	Stephen	Parkinson			X	X/C						X	
OULS	David	Perrow				X	X/C			X			
Medical Sciences	Dave	Popplewell		X		X				X			X
Student Rep	Oliver	Russell				X							
Business Systems	Michael	Sibly			X						X		
Exec Dir. E-Research	Anne	Trefethen		X		L				X		X	
Communication	Sheelagh	Treweek							X			X	
Business Ext	David	Watson					L					X	
Chair ITSSG	Jeremy	Worth		X									X
Conf. Colleges	Bernard	Silverman										X/C	
MIS Management	Margaret	Taylor					X/C					X/C	
JISC	Bill	Olivier							X/C				
MIS	Rina	Israeli		X/C									
MIS	Anne	Clayden								X/C			
OUCS	Matthew	Dovey			X								
MIS Tech	Niall	Hedderley						X					
OUCS Tech	Wylie	Horn				X							
OUCS Tech	Bridget	Lewis						X					
OULS Tech	Mark	Round						X					
MIS Management	John	Jenkins								X			
Medical School IMSU	Nigel	R-Brown			X		X						X
OUCS	Pete	Robinson											X
OUCS	Kate	Lindsay			X								
OUCS	Howard	Noble			X/C								
University Administration	Charles	Shaw					X						
Particle Physics	Rhys	Newman									X	X	
OUCS	Sebastian	Rahtz		X								X	
Ed. Policy & Standards Committee	Richard	Hughes			X								
Hertford College	Peter	Baker			X								
Physics	Graham	Lee										X/C	
Physics	Robert	Taylor			X								
Computing Lab	Andrew	Martin				X							
X/C = to receive correspondence/observe			A	B	C	D	E	F	G	H	I	J	K
X/A = to be called upon to provide advice.			Gazette	Consult	Objectives	Requirements	Governance	Consultant Interface	Other UK Universities	Large Investments	Time + costs	Strategic Plan	Future-Stating



Full ICTS SG Membership (Nov 19)...



- Chair: Project Sponsor (Dr Bill Macmillan)
- Prof Paul Jeffreys (Acting ICT Director)
- Prof Ken Peach** (Director, John Adams Institute for Accelerator Science University of Oxford and Royal Holloway University of London)

- Dr Jo Ashbourn (Chair of Colleges' IT Group and representing users)
- Dr Pete Biggs** (Chair of IT Users' Group and representing academic users)
- Dr Alan Bowman (representing Humanities)
- Prof Keith Burnett** (representing MPS)
- Prof Mark Clark (external representative, CIO at Manchester University)
- Dr Jim Davies** (representing Continuing Education and Software Engineering)
- Dr Jurgen A Doornik (Representing Social Sciences)
- Prof Bill Dutton (vice chair of ICTC and *observer*)
- Mr Jerry Fishenden (Business External)
- Mr Alan Gay (representing OUCS systems)
- Prof Mike Giles** (representing Computing Laboratory and MPS)

- Mrs Annette Haworth (external representative, Director of Information Services, Reading University)
- Mr Nigel Herriott (Business External)
- Dr Stuart Lee (representing OUCS)
- Mr Bill Olivier (Member from JISC)
- Dr Stephen Parkinson (representing Humanities Division)
- Mr David Perrow (representing OULS)
- Dr David Popplewell (representing Medical Sciences Division)
- Mr Oliver Russell (Vice-President (Graduates), representing students)
- Prof Bernard Silverman (Conference of Colleges representative)
- Mr Michael Sibly (representing business systems)
- Mrs Margaret Taylor (representing business systems)
- Dr Anne Trefethen** (representing research computing)
- Mr Jeremy Worth (Chair of ITSSG and representing users)
- Dr David Watson (Business External)



...Full ICTS SG Membership (Nov 19)



Secretarial team: Officers representing ICTC will provide enhanced secretarial support, and work with the sub-group to develop documents for consideration by the Steering Group.

Technical Secretary: Dr Mike Fraser

Communication Manager: Mrs Sheelagh Treweek

In attendance:-


(Interim) Enterprise Manager: Mr Lou Burnard

Programme Manager: Cllr Tony Brett



ICT Strategy Web Site (main page)




ICT Home Page
ICT Strategy Home Page
ICTS-SG Terms of Reference
ICTS-SG Membership
Main Meetings and Background
ICTS-SG Steering Group Additional Papers (ox.ac.uk only)

Search IT Oxford University

Oxford University ICT Strategy Programme

▶ ICT ▶ strategy

The Oxford University IT Strategy Programme: September 2005 to April 2006.

Purpose

The purpose of the ICT Strategy Steering Group is to guide the development of an ICT Strategy for the collegiate University, ensuring a co-ordinated and coherent approach which will enable the University to both, "provide high-quality and cost effective ICT services and training that meet the needs of the University and its members" and, "foster innovation, best practice, and value for money in the use of ICT in teaching, learning, and research across the University". The focus of the ICT SSG will be the provision of ICT infrastructure, including support and standards. The ICT Strategy Steering Group will form in summer 2005 and is expected to meet approximately six times before reporting in late spring 2006.

The Programme has launched 11 separate [Work Tasks](#) which will be overseen by the ICT Strategy Steering Group at five meetings, the first of which was on 6 September 2005.

The progress of the programme is reported in a fortnightly [newsletter](#).

Please take a few moments to fill in our [landscape survey](#). This will be useful in ensuring that the programme takes into account the views of as many University members as possible

Style: Simple text | Single file | Normal | PDF

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ICT Strategy Web Site (Work Tasks)



[ICT Home Page](#)

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[ICTS-SG Terms of Reference](#)

[ICTS-SG Membership](#)

[Main Meetings and Background](#)

[ICTS-SG Steering Group Additional Papers \(ox.ac.uk only\)](#)

Search IT Oxford University

ICT Strategy Work Tasks

▶ [ICT](#) ▶ [strategy](#) ▶ [worktasks](#)

Documents for the Work Tasks for the ICT Strategy Steering Group

- ◆ [Work Task A - Description and Goals endorsement and Gazette Publication](#)
- ◆ [Work Task B - Ongoing Consultations](#)
- ◆ [Work Task C - University Strategic Objectives and Plan](#)
- ◆ [Work Task D - ICT Requirements for Collegiate University](#)
- ◆ [Work Task E - Federated Environment and Governance](#)
- ◆ [Work Task F - ICT Consultant and Team Interface](#)
- ◆ [Work Task G - External Research](#)
- ◆ [Work Task H - Large Scale Investments](#)
- ◆ [Work Task I - Timescales and Costs for Collegiate University](#)
- ◆ [Work Task J - Development of Strategic Plan](#)
- ◆ [Work Task K - Long Term Future-Stating](#)

General instructions for Work Tasks:

- ◆ In order to commission a Work Task (WT) leaders should consult [Guidance for Work Task Leaders](#). The WT leader should complete the [coversheet](#) at its first meeting and use this to record progress.
- ◆ WT documents should be labelled according to the identity of the workshop and numerically so the first and second documents of WT C, for example, would be called WT-C-01 and WT-C-02. Please make sure the label and date of each document appears both in its filename and on every page of the document. Each meeting of the WT group should be documented and the notes sent to [Tony Brett](#).
- ◆ A [Proforma](#) is available and should be used to monitor and record the work of each WT in a standard form for reporting to the ICT Strategy Steering Group Meetings. Please Email completed versions of these also to [Tony Brett](#).
- ◆ Examples of the [Coversheet](#) and the [Proforma](#) are available to assist WT leaders.
- ◆ Documentation may be printed and written on if this is more convenient - if that is the case then please send papers to Tony Brett, OUCS, 13 Banbury Road via the internal messenger, or fax to 73275, as soon as possible for adding to the website.



Letter from Max Nikias – Provost USC (Sept 05)



In our current environment, our Information Services Division juggles an immense array of support and service duties, ... Meanwhile, ISD must provide all of these services for a large, extremely diverse research university. This is no small undertaking: USC now serves 16,500 undergraduate students, ...

At present, our Information Services Division centralizes its services, combines competing functions, focuses on organizational issues, sets limits, and establishes controls. **While this structure minimizes inefficiency, it is expensive and potentially sacrifices its customer service focus**, which can cost the university its competitive advantage in the area of information services and technology.

The integration of services is leading to a large, impersonal, unwieldy organization. By trying to create a consistent and objective set of services that is equal for all, ISD might ultimately be forced to place greater importance on the rules of consistency and objectivity than on the customers themselves.



... continued ...



And so USC stands at a critical crossroads with respect to its Information Services Division, and **we must develop a strategy that leads to competitive, best-of-breed information and technology for everyone at USC.** We must choose responsive and high quality services that unlock the full potential of learning and discovery, freeing our faculty, students, and staff to dream, learn, and create, while making USC a thriving, vibrant, global center of learning

Alternative Model: A Federated System

Well-designed, organized, and managed information services are a distinct asset and strategic resource for USC, dramatically improving and transforming the life of the university, while helping to attract the best faculty, the best researchers, and the best students, all of which in turn advances the standing of the University as a whole. **And so our first question should be: what are the needs of our community, and how can we best deliver these needs?** From this we should ask: what structure best meets these needs? This customer-centric, market-driven service model will define the organization that delivers these services.



... continued



The federated system will be **centrally coordinated** to ensure common standards and a single USC identity. There will be **some common services** that the entire university will use, but beyond those, the **individual units may select the specific services they need**. This allows for greater opportunity for investment in information and technology across the board, with each cluster unit able to guide the pace and direction of information services in accordance with their own priorities, to have direct oversight of these services to ensure they are delivered in a manner that works best for their needs, and to make adjustments to those services, all with relative ease.

We will make an **institutional commitment** to adapt as needed to effect the meaningful and timely change of information services and their associated governance and funding, allowing USC to achieve its strategic goals.

To this end, I am appointing two different committees of faculty and staff, one to examine information services and one to examine major and timely issues pertaining to the USC Libraries.



Principles for ICT Strategy Exercise



Starting principles:

1. See V-C's comments to launch meeting (federal structure and best use of resources)
2. Benefit from advantages - both sides of the Gartner diagram
3. Similar approach to USC, but ... starting from a different position



Emerging ideas from Exercise



[Personal, and I hope, **ICTS SG** view]:-

- ***Slogan: “Globally agreed standards, implemented locally”***
- True federated ICT infrastructure
- Enterprise-wide services run at the centre, priorities set by the collegiate University
- Where best practice is in a given unit, great! - invest resources
 - Remain in the unit, eventually possibly move to centre?
- ‘ICT Club’ for IT support staff where standards developed and agreed, interoperability ensured
 - Where necessary, standards imposed (‘for the good of the university’)
- Ability to set priorities for major investment, driven by University requirements, 5 year timescale
 - New ICT Governance with appropriate connections



ICT Strategy Steering Group - reflections



Views emerging which look ‘sound’

- However, the WTs are organic, it is not possible to predict what will emerge..

We must work against *remit drift*

ICT facilities which underpin research must be considered

- The single most important deliverable by April 2006 is a change of ICT culture
- The single biggest challenge is to find the best way to engage with the University

What do we mean by ‘value-added ICT’?

- Perhaps best shown by *case studies* (WT K)
- But:-
 - Only intended as examples
 - Must be careful to manage expectation!
 - Current set – launching pad for WTs B and D (hope for refinements)
 - <http://www.ict.ox.ac.uk/strategy/scenarios/>



Questions for MPS Division



Advice on best procedures to adopt with MPS – very welcome

- Must capture your requirements
- Must benefit from the ICT activities you do best
- Must derive a Strategic Plan with you, which is acceptable to you
- Advice on best means of communication with potential contributors
 - Possibly consult/discuss in two stages because of time constraints?
- Representatives from MPS to contact?
 - Members of ICTS SG; others?
 - Where to send Newsletter?

Related Questions:

- Does MPS have divisional ICT structure or are departments autonomous?
 - Role of MPS ASUC?
 - What would be the best way for MPS to interact with ICT coordinators?
 - Are there requirements which might be specific to MPS?
 - Which technical decisions potentially have an impact on MPS?
 - Tough choices to be made between cost and quality of services
- > **Really complex task; all advice gratefully received!**



End of presentation

<http://www.ict.ox.ac.uk/strategy/>

ict@ox.ac.uk



Case Study – Teacher



Profile

University Lecturer, gives at least 36 lectures and classes to undergraduates and to graduates on the taught masters course in any one academic year. Supervises student projects and graduate research students Tutorial fellow in college, gives tutorials to undergraduates. Also embodies a significant research role and a growing administration workload

Story

Dr Wilson completes the last of his draft examination papers and, securely, makes them available for comment by the external examiner. He is alerted to the submission of an assignment by his undergraduate student Alex on Weblearn. He has a quick read online and sees an unfamiliar book reference. From within Weblearn he is able to quickly locate an accessible copy of the book which he reserves for his next visit to the library and, if any use, will update his reading list on Weblearn accordingly. He consults the University-wide calendar and suggests a date with which to meet with Alex. At this meeting he will also discuss and finalise Alex's third year options, after which Alex will submit the decision to the online student records system. Back within Weblearn (but still within his Web browser) he uploads a series of case studies for discussion next week by his tutorial group (the members of which are duly alerted to the upload by an email sent by Weblearn).

Dr Wilson meets Susan, a D.Phil student he jointly supervises with Professor Gosford. He discusses some final changes to her thesis after which Susan uploads a revised version of the thesis (with changes clearly and automatically highlighted) to the institutional repository, for a final review by Professor Gosford. Before leaving he lodges a booking request for a medium-sized centrally located lecture theatre for next term's lectures. He expects the system to notify him with a list of available options around the campus which may be booked.



Case Study – Researcher (first draft)



Profile:

Lecturer or post-doctoral research assistant;
Already has established research record in a specialised area;
Principle or co-investigator on at least one project;
Concerned with ensuring research gets done and published; with developing collaborations whilst remaining competitive;
Contributing to teaching and graduate supervision.

Story:

Dr Heaney's research is taking her into an increasingly unfamiliar area and she is seeking someone to assist in validating her results. She uses the University's Research Discovery Service to locate a potential collaborator in another Department. She also discovers the existence of an international research project led by Oxford which is making use of much the same primary data as her but for quite different purposes. Her own data would complement what the project already has and she would benefit from participating in a broader network of expertise. She emails the PI and includes a link to her research profile page on the RDS, from which her research publications and, in some cases the supporting data, can be retrieved from the Digital Repository. Like Professor Reader she is keen on making use of technologies which enable collaborative working. She is an active member of one or two email discussion lists in her area and has shared ideas with a fellow researcher in a US institution using both desktop Access Grid and also simple messaging tools. She turns her attention to completing a proposal for internal funding in order to properly annotate her personal image database prior to uploading them to the Digital Repository for both wider but secure online access and to help ensure their preservation.