

# Institutional Data Management for Personalisation and Syndication

Overview Event for ISS Staff

# IDMAPS

Introduction

Sunil Rodger

Data Flow

Jon Dowland

Personalisation

Paul Thompson

Q&A and Conclusion

Steve Williams

... Food

# Introduction

Sunil Rodger

# IDMAPS

JISC-funded: improve organisational data flow

*“Provide the data you want, more simply and more securely, with clarity of ownership”*

But description doesn't explain *how*...

# Currently

## Large institution

19,000 students, 5000 staff

Complex and diverse IT systems

SAP, CAMA, Active Directory, MOFS, S3P... etc.

## Systems have grown dynamically

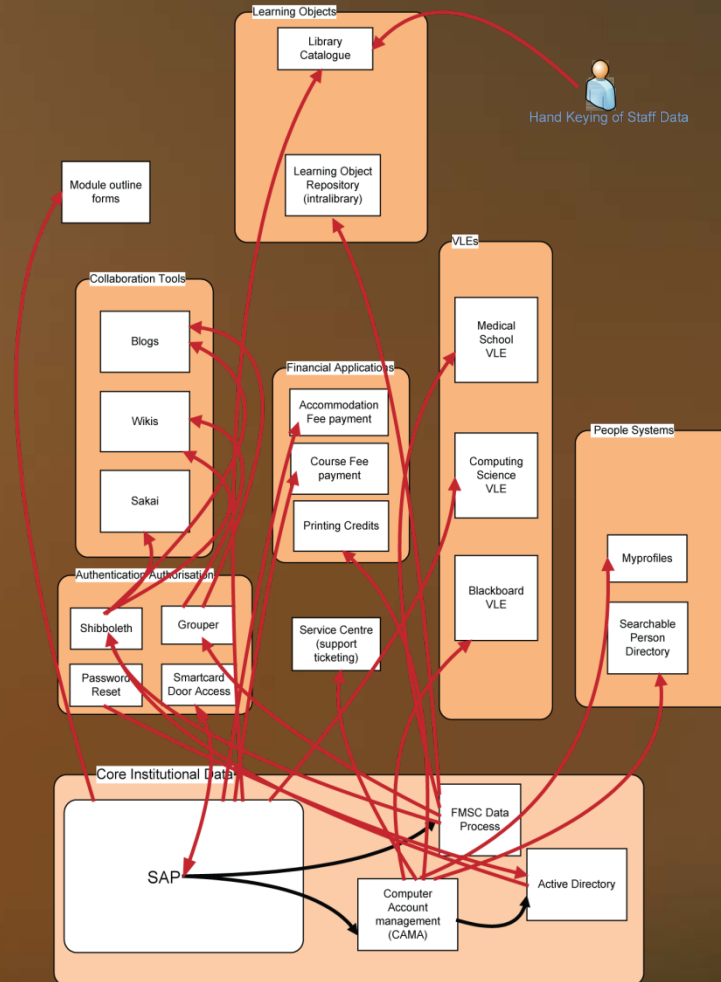
No overall roadmap/plan

## Diversity of legacy data sharing methods

Various file formats, frequencies, and levels of reliability

Inefficiencies and institutional habits

# Present Data Flow



# Problems

## Lack of standardised interfaces

- Maintenance

- Adding new systems and integrating into a cohesive whole

- Unsustainable

## Data reliability and integrity

- Redundancies in data

- Questions over responsibilities

## Lack of data policies and procedures

- Data Protection, Freedom of Information

# Project Aims

## Create information architecture

- Extensible

- Standards-based

- Documented

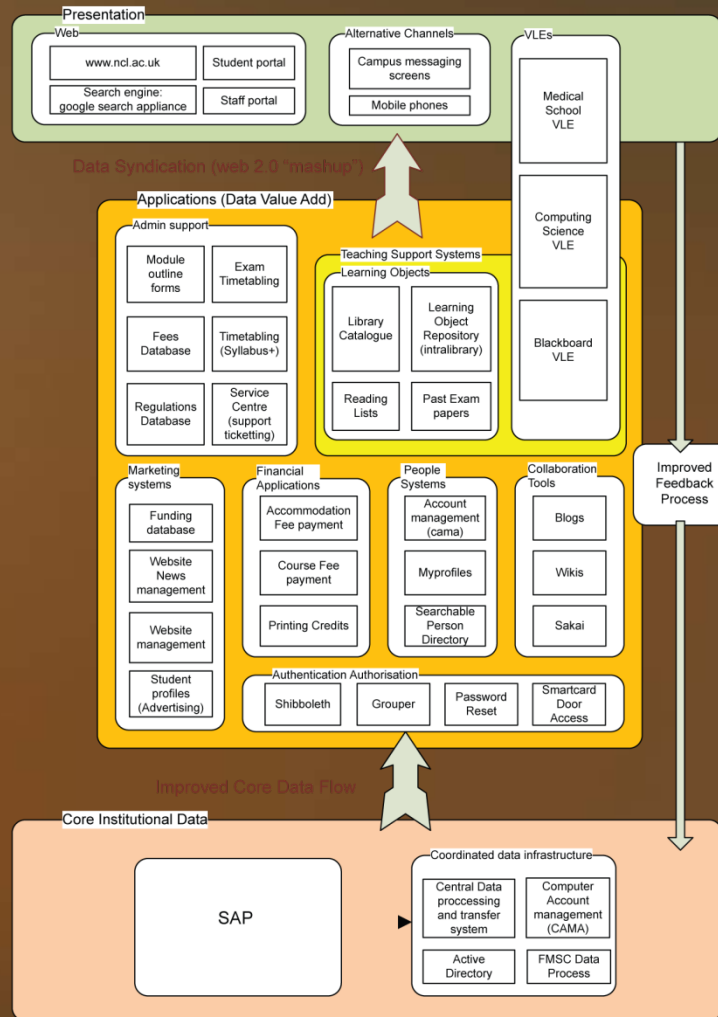
- Supported by policies and procedures for use

## Build upon architecture with Web 2.0 mashups

- Integration of disparate systems

- Add value through increased usefulness to users

# Proposed Data Flow



# Project Phases

Audit

Information architecture

Implementation

Pilot

Integration

# Audit: Stakeholders & Systems

## Stakeholders

Student Progress

HR

ISS

QUILT

Library

Medical Science

Computer Science

Examinations Office

*... etc.*

## Systems

SAP

Active Directory

Print credits

CAMA

Exam papers

FMSC VLEs, Blackboard

NESS

S3P

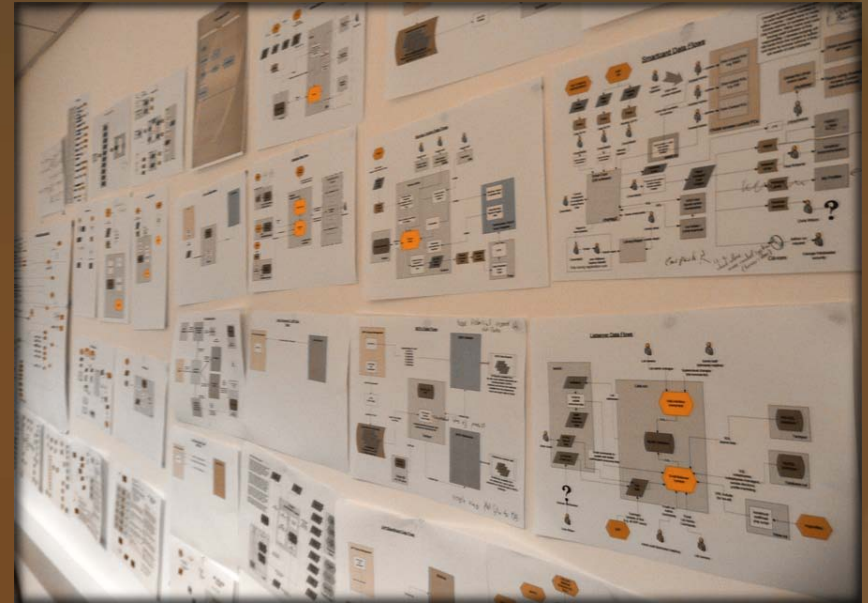
*... etc.*

# Audit: Data

Master Copy

Responsibility

Dependent systems  
and processes



*The Wall of Data Doom...*

# Information Architecture

## Broad Aims

- Flexible and standards-based
- Adaptable and extensible
- Focus on reliability and quality of data

## Specific Goals

- Robust
- Coherent
- Future-proofed
- Responsive
- Traceability and auditing

# What's next?

## Project Stages

Implementation

Pilot

Integration

## Feedback

Wide-ranging project

Are we missing anything?

See handouts

# Case Studies

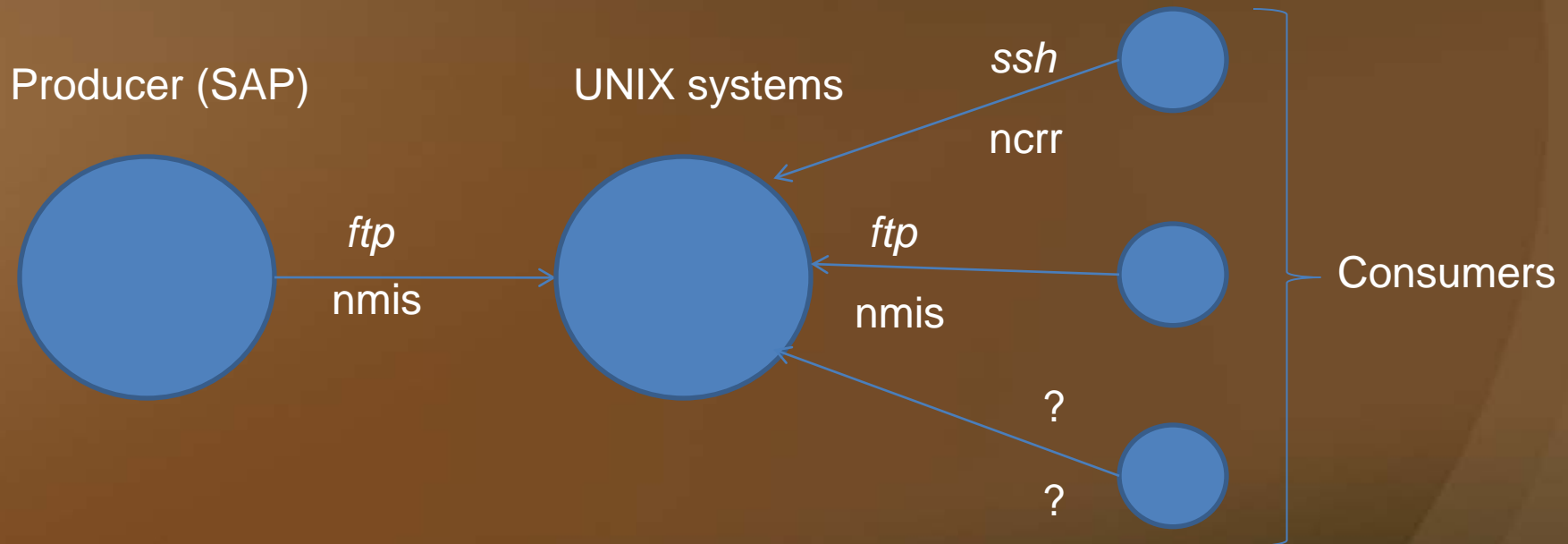
Jon Dowland  
Paul Thompson

# Case Study: Data Flows

Jon Dowland

# System Changes

Decommissioning “FTP service” 2006-2008



# Interim Solution

**SAP data transfers best practises - Unix Team Wiki**

File Edit View Go Bookmarks Tools Tabs Help

[https://community.ncl.ac.uk/unix/wiki/index.php?title=SAP\\_data\\_transfers\\_best\\_practises&printable=yes](https://community.ncl.ac.uk/unix/wiki/index.php?title=SAP_data_transfers_best_practises&printable=yes) my post Readability

## SAP data transfers best practises

title  
SAP Data Transfers

author  
ISS Unix Team

**Contents**

- 1 purpose
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  - 2.4 Business Applications
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  - 3.7 UNIX-based transfers

**purpose**

**sap\_data\_transfers.xls - OpenOffice.org Calc**

File Edit View Insert Format Tools Data Window Help

Sans 10 85%

	H	I	J	K	L	M	N
	method	source	destination	consumers	language	syslogging?	logfile
1	DAV	ciserver	on-campus webfolders (nsapdata)	DMS	perl	no	
2	ftp	ciserver	on-campus finance		sh	yes	
3	ftp	ciserver	on-campus Steve Donoghue		sh	yes	
4	ftp	ciserver	on-campus finance		sh	yes	
5	ftp	ciserver	on-campus finance		sh	yes	
6	ftp	ciserver	on-campus finance		sh	yes	
7	ftp	ciserver	on-campus finance		sh	yes	
8	SFTP	ciserver	generic		expect	no	/ciser/var/home/sap/generic/scripts/expect.log
9	DAV	ciserver	on-campus webfolders (nmofs)	ADU	perl	no	/ciser/var/home/sap/studinfo/transfer.log
10	ftp	ciserver	on-campus finance		sh	yes	
11	ftp	ciserver	on-campus Steve Donoghue		sh	yes	
12	DAV	ciserver	on-campus webfolders (nwpapp)		perl	no	/ciser/var/home/sap/pgapp/transfer.log
13	scp	ciserver	on-campus Andrew Fisher		sh	yes	
14	DAV	ciserver	on-campus webfolders (nsmispro)		perl	no	/ciser/var/home/sap/sms/transfer.log
15	DAV	ciserver	on-campus webfolders (nsapdata)		perl	yes	
16	scp	ciserver	nmedfac@unix	FMSC	sh	yes	
17	scp	ciserver	nmis	?	sh	yes (twice)	
18	scp	ciserver	nmis; nsmrtbfr	? smartcard	sh	yes	
19	SFTP	ciserver	sparkly	library	sh	yes	/ciser/var/home/sap/generic/scripts/expect.log
20	scp	ciserver	lists.ncl	UNIX team	sh	yes	
21	MISSING	ciserver			?		
22	MISSING	ciserver			?		
23	ftp	ciserver	off campus	web page marketing	sh	yes	
24	scp	ciserver	lists.ncl	UNIX team			
25	sftp	ciserver	sandpiper	netskills	sh	no	saplogs
26	DAV	ciserver	on-campus webfolders (nsapdata)	cama	perl/sh		
27	DAV	webfolders	ciserver	SAP	sh	yes	
28	DAV	webfolders	ciserver	SAP	sh		
29	scp, DAV	ciserver	nmis@unix (scp); on-campus webfolders	ADU + ? (probably no)	sh	yes	
30	DAV	ciserver	on-campus webfolders (nsapdata)	?	sh/perl	yes	
31	DAV	ciserver	on-campus webfolders (nsapdata)	ADU	sh	yes	
32	DAV	ciserver	on-campus webfolders (nsapdata)	ADU	sh	yes	
33	DAV	ciserver	on-campus webfolders (nbddd)	HR (r impact team)	perl	yes	
34	DAV	ciserver	on-campus webfolders (nbddd)	HR (r impact team)	perl	yes	
35	DAV	ciserver	on-campus webfolders (nbddd)	HR (r impact team)	perl	yes	
36							
37							

Sheet1 / Sheet2 / Sheet3

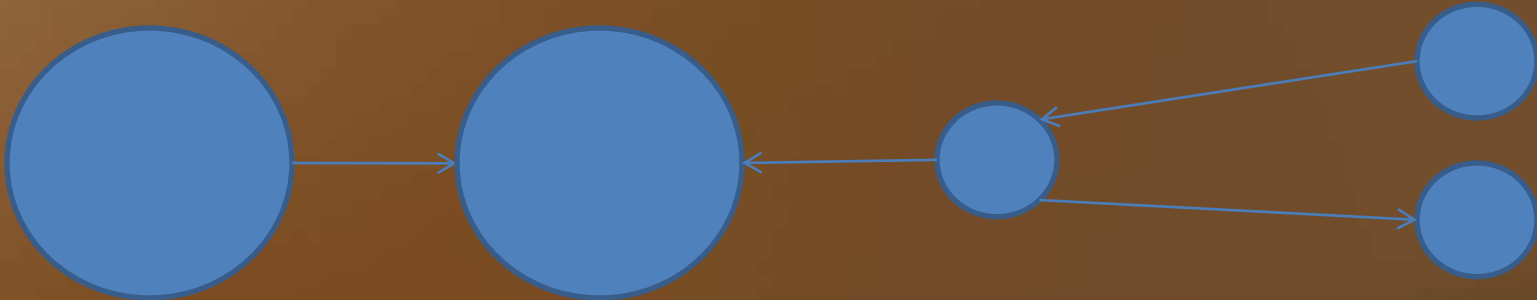
Sheet 1 / 3 PageStyle\_Sheet1 85% STD Sum=0

# Data Feed Re-use

Producer (SAP)

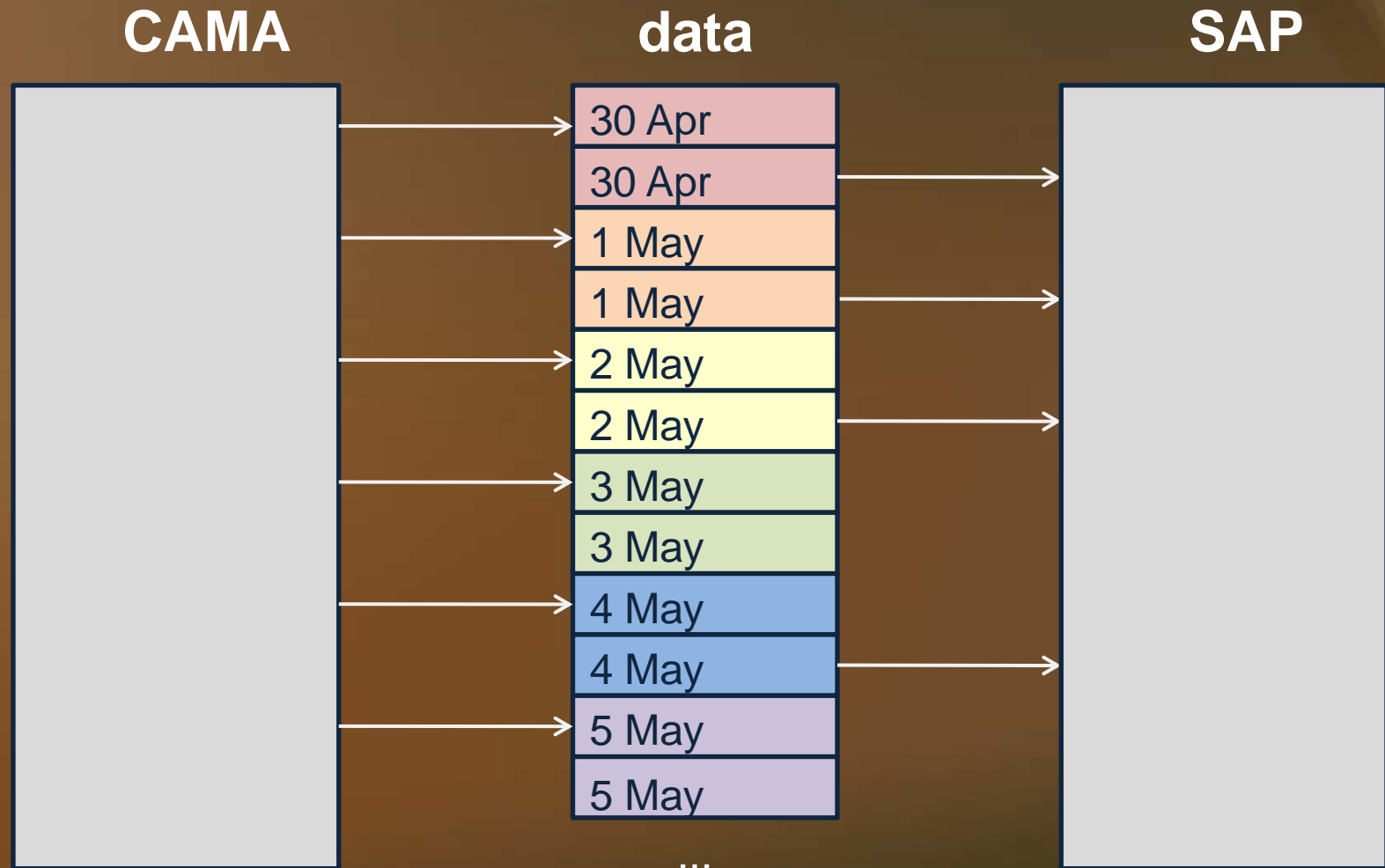
UNIX systems

Consumer



...

## S3P



# Solutions

Data dictionary (what have we got, where)

Data transfer records (who is fetching what)

“Message queue” middleware

# Case Study: Personalisation

Paul Thompson

# Personalisation & Integration

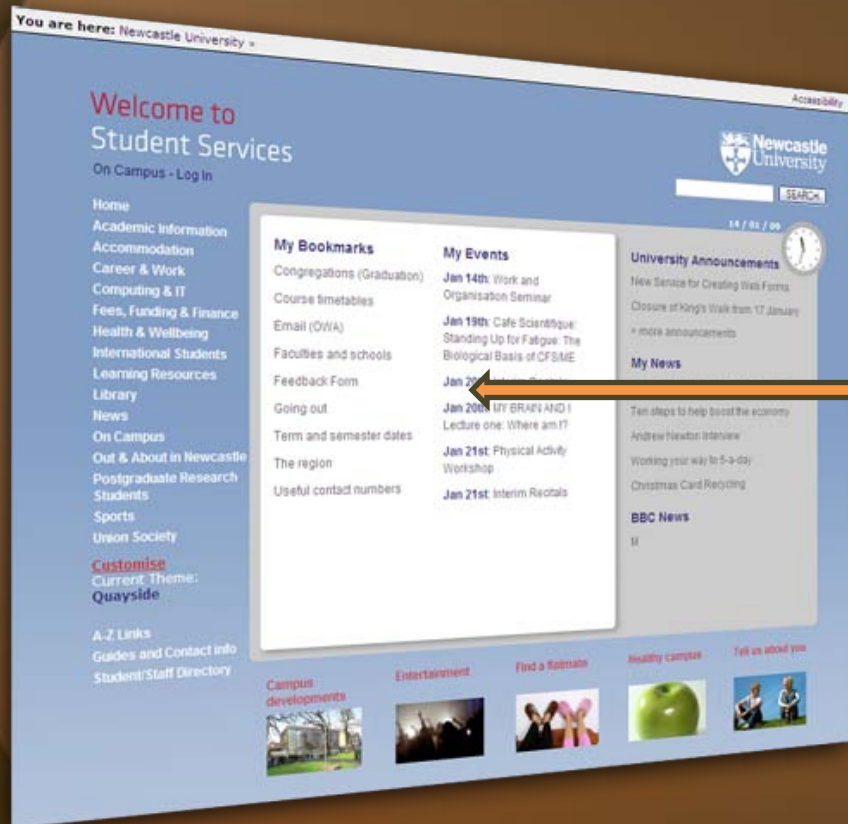
Student homepage

Staff homepage

Blackboard & other VLEs

Systems present relevant information to users  
(and to each other)

# Teaching Materials



## My Course

Blackboard / VLE's

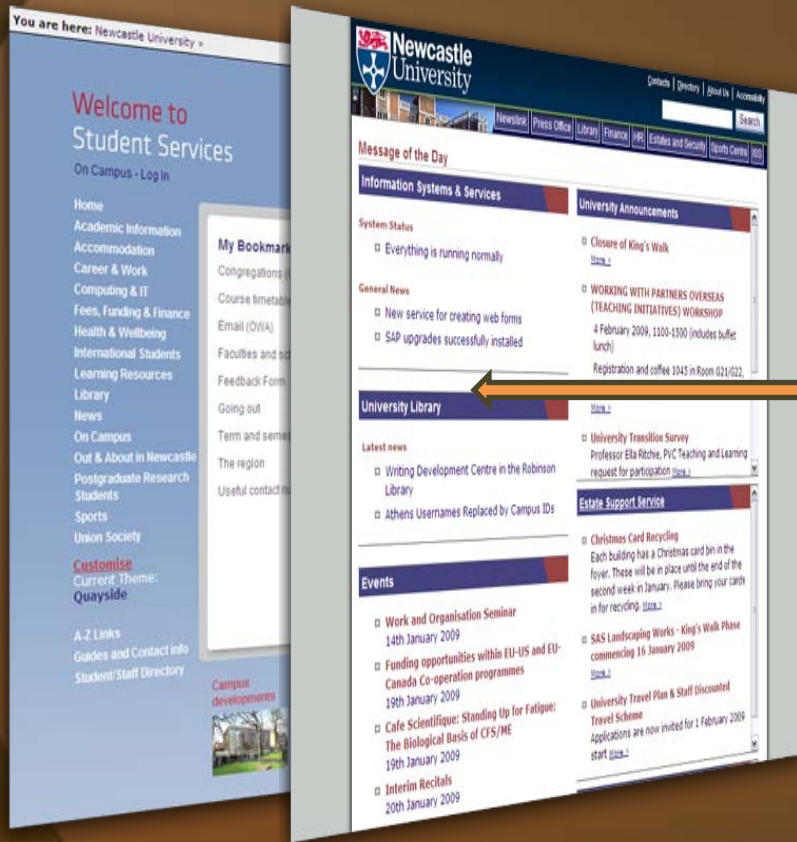
MOFs

Reading Lists

ReCap

Exam Papers

# News and Events



## My News

School & Faculty Websites

Central Services Websites

Blogs, Wikis & Repositories

# Academic Information



## My Timetable

Syllabus +

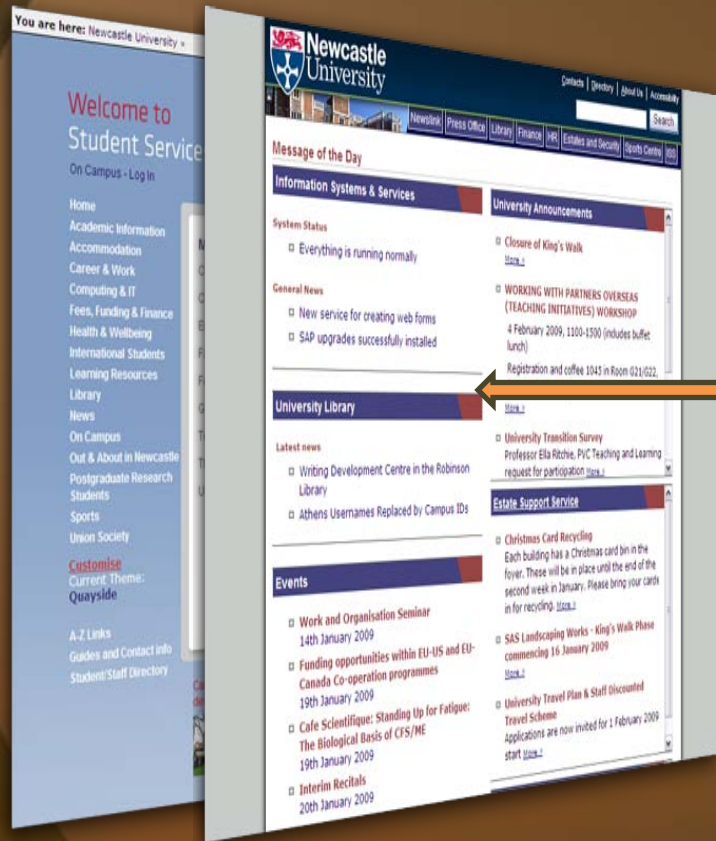
Business Diary

## My Contacts

NUContacts

CAMA

# Administrative Systems



## My Queries

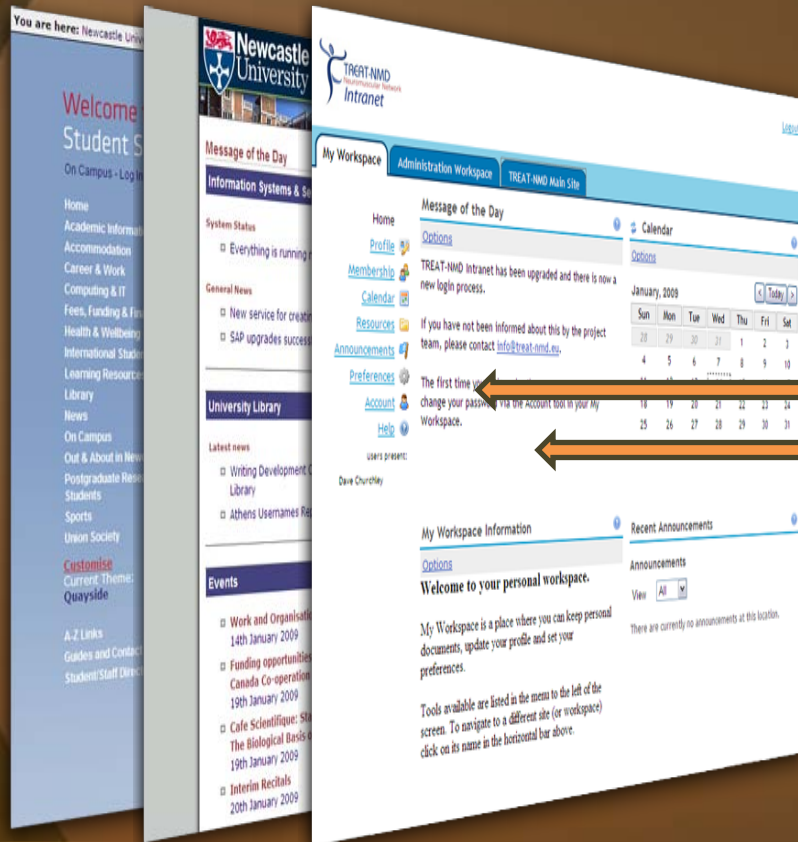
Student Services  
CRM

ISS Service Centre

Other Helpdesk  
Software

Print Credits

# Research Community



My Project A

My Project B

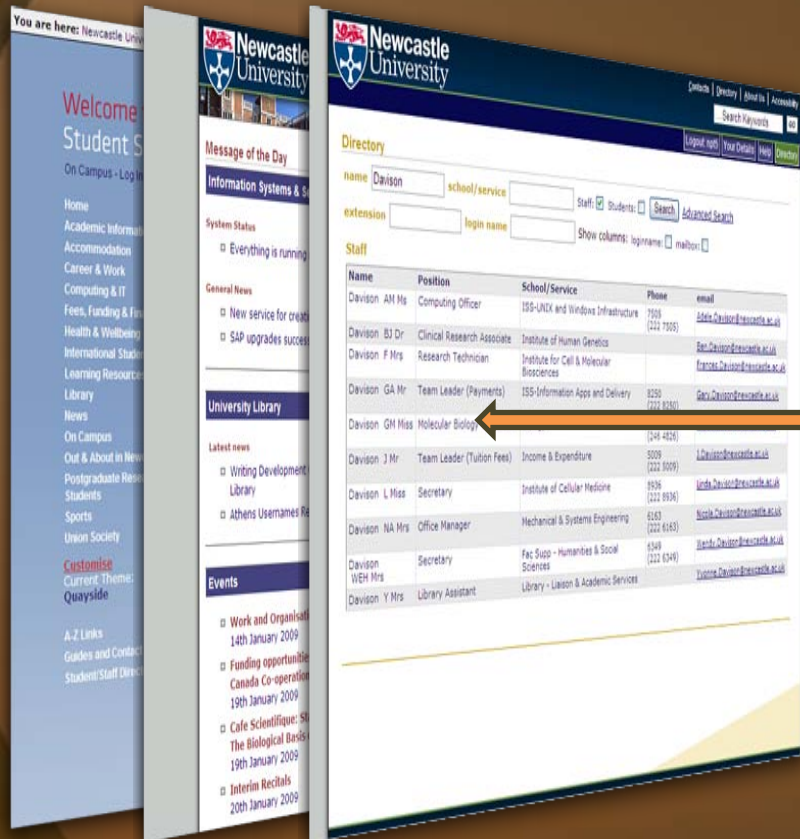
Website

Blog

Wiki

Repository

# Data Visibility



## My Details

CAMA

MyProfiles

ISS Accounts

Student Profile

# Q&A and Conclusion

Steve Williams