Computing Service Expenditure

Table 1 shows the estimated expenditure within the various sections of the Computing Service broken down by type as follows:

Centrally Funded:	UEF, Equipment Grant, PC 4
Cost Recovery:	Recovered from service charges

Figures are for the financial year 2006–07 in units of £1,000.

Table 1 - Section expenditure

	Centrally Funded			Cos	t Recovery	Combined
	Staff	Équip.	Other	Staff	Equip./Other	Total
Directorate	174	0	3	0	0	177
Administration	87	34	33	0	0	154
Finance	67	0	3	29	0	99
Building Services	127	1	22	0	0	150
Administration and Finance	455	35	61	29	0	580
Institution Liaison	131	9	5	19	0	164
Information and User Administration	259	7	12	59	0	337
Sales, Reception, and Print Room	221	7	15	69	575	887
LLCC	124	1	3	0	0	128
PandIS	91	0	8	79	245	423
User Services	695	15	38	117	820	1,775
Hardware Support	206	16	12	112	22	368
Software Support	498	36	18	0	3	555
Help Desk	189	10	12	0	0	211
Training	116	3	4	5	34	162
TECHNICAL USER SUPPORT	1,009	65	46	117	59	1,296
GBN	9	0	2	35	73	119
Network Installation	196	1	7	0	141	345
Network Systems	250	9	10	58	342	669
Network Support	176	1	7	2	0	186
PWF Systems	152	82	116	166	35	551
Managed Clusters	212	41	7	55	6	321
Operations	207	2	11	0	0	220
NETWORK DIVISION	1,202	136	160	316	597	2,411
Web Systems	112	2	23	0	0	137
Unix Support	205	94	16	0	8	323
Electronic Mail	113	109	7	0	0	229
Central Unix Service	107	8	8	0	0	123
Database and Archiving	61	1	2	0	0	64
DSpace	102	2	1	0	0	105
Software Development	116	1	5	0	0	122
eScience Support	141	8	4	10	0	163
UNIX SYSTEMS DIVISION	957	225	66	10	8	1,266
TOTAL COMPUTING SERVICE	4,449	485	376	698	1,484	7,492

University Data Network

Tables 2(a) to 2(c) show Cambridge University Data Network connections by institution. The connections are essentially all ethernet in type and have been divided as follows:

Slow ethernet	All 10 Mbps or less
Fast ethernet	All 100 Mbps
Gigabit ethernet	All 1,000 Mbps

Table 3 gives estimates for the number of IPv4-addresses in use within the University. Global addresses are those visible to the outside world, whilst private addresses are only available for use within the cam.ac.uk domain.

Figures are for the end of 2006–07; end of 2005–06 figures are in italics.

TABLE 2(a) – DATA NETWORK CONNECTIONS

	S	low	F	ast	Gig	abit	Lapwing
Arts and Humanities			4	4	3	3	9
Humanities and Social Sciences	1	1	9	9	8	8	15
Physical Sciences	2	2	3	3	10	9	2
Technology	1	1	3	3	5	5	2
Biological Sciences	2	2	4	5	10	10	4
Clinical Medicine			2	2	4	4	3
Other GB Institutions	1	1	12	12	6	7	29
Council Institutions	5	5	11	11	6	5	9
Miscellaneous		1	1	1	1		
TOTAL UNIVERSITY	12	13	49	50	53	51	73
Colleges	2	2	23	23	12	11	14
Research Councils	1	1	3	3	2	1	
Other external	1	2	1	1	2	-	
Total External	2	3	4	4	4	1	
TOTAL	16	18	76	77	69	63	87

TABLE 3 - IPv4-Addresses

	G	Р	Private		
Total University Colleges	37,500 14,300	37,100 15,700	8,500 7,500	6,500 5,800	
Total	52,800	52,800	16,000	12,300	

JANET Traffic

Tables 4(a) to 4(c) show the sum of ingoing and outgoing traffic at the gateway to JANET (in Gigabytes) by institution.

Figures are for 2006–07; figures for 2005–06 are in italics.

TABLE 4(a) – Janet traffic by institution

		Traffic	(GB)	
Arts and Humanities	4,368	(0.4%)	5,721	(0.8%)
Humanities and Social Sciences	10,982	(1.0%)	7,744	(1.1%)
Physical Sciences	153,827	(14.7%)	122,101	(17.8%)
Technology	90,508	(8.6%)	69,974	(10.2%)
Biological Sciences	37,478	(3.6%)	28,623	(4.2%)
Clinical Medicine	23,989	(2.3%)	15,834	(2.3%)
Other GB Institutions	71,101	(6.8%)	54,947	(8.0%)
Council Institutions	42,319	(4.0%)	27,436	(4.0%)
Miscellaneous	5,832	(0.6%)	4,473	(0.7%)
TOTAL UNIVERSITY	440,404	(41.9%)	336,553	(49.1%)
Colleges	590,538	(56.2%)	336,173	(49.1%)
Research Council institutions	15,755	(1.5%)	9,338	(1.4%)
Other external	3,284	(0.3%)	3,065	(0.4%)
TOTAL EXTERNAL	19,039	(1.8%)	12,404	(1.8%)
TOTAL	1,049,982	(100.0%)	685,129	(100.0%)

Wireless

Table 5 shows the monthly usage statistics for the Lapwing wireless service for 2006–07. This is divided into those using regular Raven authorization and those using the locally issued 'guest' ticketing system, newly introduced in May 2007.

Table 6 shows the use of Lapwing in zones in particular institutions for 2006–07. Individual users using zones in different institutions will count separately towards the institutional totals.

Users	Number of distinct users using Lapwing
Sessions	Total number of individual sessions using Lapwing
Total Time	Total connected time, in hours, for Lapwing sessions
Zones	Number of distinct Lapwing zones (areas) in use

TABLE 5 - LAPWING USE BY MONTH

		Raven Au	ithorize	d		Local 7		
	Users	Sessions	Time	Zones	Users	Sessions	Time	Zones
August	104	664	236	4				
September	130	636	223	5				
October	531	3,585	1,265	7				
November	554	4,810	1,966	7				
December	271	1,608	653	8				
January	598	3,896	1,635	10				
February	598	3,844	1,539	12				
March	597	3,457	1,375	13				
April	794	6,544	2,363	16				
May	968	11,316	4,009	17	4	6	2	3
June	639	6,505	2,434	24	48	143	51	10
July	488	5,099	1,842	31	199	1,962	676	15

TABLE 6 - LAPWING USE BY INSTITUTION

Raven Authorized				Local Tickets			
Users	Sessions	Time	Zones	Users	Sessions	Time	Zones
298	8,330	3,249	3	17	49	13	2
807	17,056	6,714	6	2	8	3	1
55	745	293	2	11	135	51	2
52	674	253	1	1	1	0	1
58	865	311	2	3	56	22	1
6	23	632	2				
1,239	19,496	7,028	6	168	1,342	472	5
330	2,526	850	2	30	470	153	1
155	2,249	836	7	17	50	14	3
	Users 298 807 55 52 58 6 1,239 330 155	Raven Au Users Sessions 298 8,330 807 17,056 55 745 52 674 58 865 6 23 1,239 19,496 330 2,526 155 2,249	Raven Authorized Users Sessions Time 298 8,330 3,249 807 17,056 6,714 55 745 293 52 674 253 58 865 311 6 23 632 1,239 19,496 7,028 330 2,526 850 155 2,249 836	Raven Authorized Users Sessions Time Zones 298 8,330 3,249 3 807 17,056 6,714 6 55 745 293 2 52 674 253 1 58 865 311 2 6 23 632 2 1,239 19,496 7,028 6 330 2,526 850 2 155 2,249 836 7	Raven AuthorizedUsersSessionsTimeZonesUsers2988,3303,24931780717,0566,71462557452932115267425311588653112362363221,23919,4967,02861683302,5268502301552,249836717	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Raven Authorized Local Tickets Users Sessions Time Zones Users Sessions Time 298 8,330 3,249 3 17 49 13 807 17,056 6,714 6 2 8 3 55 745 293 2 11 135 51 52 674 253 1 1 1 0 58 865 311 2 3 56 22 6 23 632 2 1 1 1 0 58 865 311 2 3 56 22 6 23 632 2 1 1 1 0 330 2,526 850 2 30 470 153 155 2,249 836 7 17 50 14

Electronic mail

Tables 7(a) to 7(c) show numbers of Hermes users and messages by institution.

Users	Includes users who access Hermes directly and those who have their mail forwarded to
	another system such as the CUS.
Messages	Includes both messages sent and messages received, which are typically in the ratio 1:5.

Figures are for 2006–07 with 2005–06 in italics.

TABLE 7(a) – Hermes

		U	sers		N	lessages ('l)00s)	
Arts and Humanities	2,519	(6.1%)	2,570	(6.3%)	12,206	(6.2%)	9,843	(6.2%)
Humanities and Social Sciences	5,646	(13.7%)	6,019	(14.7%)	19,563	(9.9%)	16,599	(10.5%)
Physical Sciences	4,002	(9.7%)	3,861	(9.5%)	19,818	(10.1%)	15,359	(9.7%)
Technology	3,979	(9.7%)	3,817	(9.3%)	23,006	(11.7%)	17,972	(11.4%)
Biological Sciences	3,273	(8.0%)	3,150	(7.7%)	15,695	(8.0%)	11,904	(7.5%)
Clinical Medicine	2,499	(6.1%)	2,617	(6.4%)	10,038	(5.1%)	8,152	(5.2%)
Other GB Institutions	1,364	(3.3%)	1,325	(3.2%)	9,441	(4.8%)	6,957	(4.4%)
Council Institutions	1,010	(2.5%)	1,005	(2.5%)	4,613	(2.3%)	3,501	(2.2%)
Miscellaneous	452	(1.1%)	32	(0.1%)	1,406	(0.7%)	215	(0.1%)
TOTAL UNIVERSITY	24,744	(60.2%)	24,396	(59.7%)	115,785	(58.8%)	90,501	(57.4%)
Colleges	16,001	(38.9%)	15,800	(38.7%)	80,114	(40.7%)	66,175	(42.0%)
Research Councils	272	(0.7%)	436	(1.1%)	521	(0.3%)	651	(0.4%)
Other external	120	(1.0%)	205	(0.5%)	335	(0.2%)	340	(0.2%)
Total External	392	(1.0%)	641	(1.6%)	856	(0.4%)	991	(0.6%)
TOTAL	41,137	(100.0%)	40,837	(100.0%)	196,755	(100.0%)	157,668	(100.0%)

Web and News Services

The incoming traffic to the main University website (www.cam.ac.uk) totalled 252m requests from 223 countrylevel domains in 2006–07, with a daily peak of 1,143k requests, compared to 225m, 215, and 1,058k respectively in 2005–06. The tables below show various statistics for the month of May, which gives a better indication of the termtime activity of the various services involved.

Table 8 shows the load statistics during May for the main University Web Server (www.cam.ac.uk), the University Web Search Engine, and the University Web Cache. Note that because of firewalls and other local Web caches, the client system figures for use of the Web cache will be underestimates.

Table 9 shows the load statistics during May for the main University USENET news server.

Figures are for 2006-07; 2005-06 figures are in italics.

TABLE 8 - UNIVERSITY Web Services

	Ν	May
University Web Server (www.cam.ac.uk)		·
Total requests received	21.0m	18.7m
Total data sent	113GB	105GB
Proportion of requests from Cam, UK, World	33%, 7%, 60%	35%, 8%, 57%
University Web Search Engine	, , ,	, ,
University servers indexed	507	460
Documents indexed	1.272k	553k
Total number of searches	180k	206k
Volume of data sent	2.8GB	5.5GB
Proportion of requests from Cam, UK, World	40%, 8%, 52%	38%, 9%, 53%
University Web Cache	,	
Total requests received	863m	756m
Total volume of data	21.0TB	10.4TB
% hits (requests), % hits (data volume)	44%, 8%	43%. 14%
Client systems	20,308	20,002
Client domains	156	157
Table 9 – University News Server		
	Ν	May
University News Server		
Total number of connections	698k	826k
Peak concurrent connections	138	143
Total number of newsgroups	14.3k	15.0k
Number of local newsgroups	120	239
Monthly volume	9.1GB	10.3GB
Number of individual postings	3.8m	4.4m

Raven Authentication Service

Table 10 shows the monthly breakdown of Raven usage, with the number of distinct users authenticating to Raven, and the total number of authentications served each month. The web hosts figure indicates the number of distinct websites using Raven to authenticate access to their material each month. Figures for February 2006, and October and April 2007 are under-represented due to the loss of some logging records for these months.

Figures are for 2006–07; with 2005–06 figures in italics.

TABLE 10 - RAVEN AUTHENTICATION SERVICE USE

	τ	Jsers	Web Hosts		Authentications		
August	7,985	2,175	271	145	50,659	13,849	
September	10,930	3,484	270	164	69,005	15,981	
October	13,568	14,610	247	204	62,788	89,099	
November	19,102	13,863	301	215	191,226	113,667	
December	14,706	11,574	296	199	96,250	72,824	
January	17,134	12,543	328	215	140,993	79,203	
February	16,512	11,381	322	251	140,524	74,737	
March	18,600	14,632	332	244	189,671	121,541	
April	11,971	12,521	275	244	61,782	79,162	
May	17,689	14,260	340	245	191,346	104,159	
June	19,034	16,362	338	266	267,376	97,569	
July	14,114	11,263	320	261	145,899	97,569	
			Total A1	uthentications	1.607.519	052 398	

University Directory Service

Table 11 shows the monthly breakdown of the usage of the University Directory Service (Lookup) since the beginning of the calendar year for 2007. The table shows the number of connections made to the lookup service each month, and the number of distinct client machines these were made from. Note that the number of clients accessing the directory does not include the thousands of user machines simply looking up contact details via www.lookup.cam.ac.uk, which appears as only one client machine in the table below.

Figures are for 2007; with 2006 figures for the same period in italics.

TABLE 11 – LOOKUP SERVICE USE

	Connec	Connections			
January	198,259	25,259	1,498	517	
February	363,639	105,875	2,064	1,058	
March	347,792	117,909	2,198	1,236	
April	608,664	114,024	2,537	1,481	
May	1,172,650	116,365	2,065	1,244	
June	2,700,686	119,140	1,989	1,238	
July	3,253,174	108,938	2,409	1,497	

Public Workstation Facility

Tables 12(a) to 12(c) show numbers of users and sessions by institution. Note that the figures for Computing Service users include temporary identifiers issued to users on training courses.

Users	Number of individuals using the system at least once during the year
Sessions	Number of times logged-on during the year

Table 13 gives a list of the institutions that have a Computing Service Managed Cluster, and the platforms provided at those sites.

Table 14 gives details, extracted from Tables 12(b) and 12(c), on the use of the PWF from certain University locations while Table 15 gives similar details of the use of the PWF from those Colleges which have Managed Clusters. In these two tables, the sessions have been further categorized into those originating from PCs (Windows or Linux) and those from Macintoshes. Table 16 gives details of the number of sessions to remote PWF servers from machines that are not PWF managed workstations.

In all Tables, the figures are for 2006–07, with 2005–06 figures in italics.

TABLE 12(a) – PUBLIC WORKSTATION FACILITY USE

		U	sers			Session	IS	
Arts and Humanities	962	(4.9%)	996	(5.4%)	84,497	(6.0%)	94,032	(6.7%)
Humanities and Social Sciences	2,281	(11.7%)	1,589	(8.7%)	161,622	(11.4%)	150,338	(10.8%)
Physical Sciences	1,428	(7.3%)	1,423	(7.8%)	102,571	(7.3%)	105,090	(7.5%)
Technology	894	(4.6%)	919	(5.0%)	38,003	(2.7%)	37,371	(2.7%)
Biological Sciences	672	(3.4%)	628	(3.5%)	45,696	(3.2%)	48,040	(3.4%)
Clinical Medicine	662	(3.4%)	618	(3.4%)	80,169	(5.7%)	79,652	(5.7%)
Other GB Institutions	2,981	(15.3%)	2,828	(15.5%)	59,230	(4.2%)	71,090	(5.1%)
Council Institutions	83	(0.4%)	82	(0.4%)	4,332	(0.3%)	4,410	(0.3%)
Miscellaneous	111	(0.6%)	8	(0.0%)	1,754	(0.1%)	557	(0.0%)
TOTAL UNIVERSITY	10,074	(51.5%)	9,091	(49.7%)	577,874	(40.9%)	590,580	(42.3%)
Colleges	9,454	(48.4%)	9,091	(49.7%)	835,208	(59.1%)	802,274	(57.5%)
Research Councils	15	(0.1%)	90	(0.5%)	98	(0.0%)	1,986	(0.1%)
Other external	4	(0.0%)	23	(0.1%)	97	(0.0%)	382	(0.0%)
Total External	19	(0.1%)	113	(0.6%)	195	(0.0%)	2,368	(0.2%)
TOTAL	19,547	(100.0%)	18,295	(100.0%)	1,413,277	(100.0%)	1,395,222	(100.0%)

Special No. 10]

TABLE 13 – MANAGED CLUSTER SITES

Institution

Institution	Platform						
	Windows PC	Macintosh	Linux PC				
Archaeology	Х	Х					
Chemistry	Х	Х	Х				
Clinical School	Х						
Clinical Veterinary Medicine	Х	Х					
Computer Laboratory	Х		Х				
Education	Х	Х					
English	Х	Х					
Geography	Х		Х				
History	Х						
Land Economy	Х						
Law	Х		Х				
Mathematics	Х		Х				
MML and Philosophy	Х	Х	Х				
Moore Library	Х		Х				
Physics	Х		Х				
Social and Political Sciences	Х	х					
Christ's	Х						
Clare	Х	Х	Х				
Downing	Х	Х					
Emmanuel	Х	Х					
Fitzwilliam	Х	Х	Х				
Gonville and Caius	Х	Х					
Homerton	Х						
King's	Х	Х	Х				
Lucy Cavendish	Х						
New Hall	Х	Х					
Newnham	Х	Х					
Peterhouse	Х	Х					
Queens'	Х	Х	Х				
Robinson	Х	Х	Х				
Selwyn	Х		Х				
Sidney Sussex	Х	Х					
St Catherine's	Х	Х	х				
St John's	Х	Х					
Trinity	Х	Х	х				
Trinity Hall	Х	Х	х				
Wolfson	х		х				

TABLE 14 - University Public Workstation Facility sessions by location

N.B. Since users may use more than one location, user numbers are not additive between locations.

Location	ι	Jsers	Sessions				
Computing Service locations]	PC	Mac		
Phoenix User Area (New Museums Site)	1,027	1,174	13,467	14,709	1,788	1,510	
Titan Teaching Room 1 (New Museums Site)	1,578	1,712	11,816	15,051			
Titan Teaching Room 2 (New Museums Site)	957	1364	5,053	5,989			
Phoenix Teaching Room (New Museums Site)	885	900	6,605	7,595			
Balfour Macintosh Room (New Museums Site)	678	477	,		5,409	2271	
Oriental Studies Basement (Sidgwick Site)	438	551	4,306	7,930	900	593	
University Centre	1,164	1,106	14,948	14,489	1,944	819	
Disability Resource Centre	28	14	203	83	14	3	
	То	tal Sessions	56,398	65,846	10,055	5,196	
Managed Cluster locations							
Archaeology	151	171	11,068	12,051	268	93	
Chemistry	836	823	30,341	31,189	8,049	3,328	
Clinical Medicine	689	663	62,366	60,163			
Clinical Veterinary Medicine	416	406	31,656	34,891	1,726	725	
Computer Laboratory	535	492	21,997	13,558			
Education	1,205		24,629				
English	991	985	30,448	39,965	5		
Geography	519	553	25,211	27,593			
History	711	636	10,974	8,886			
Land Economy	612	597	19,672	15,410			
Law	1,327	1,432	35,296	58,609			
Mathematics	1,015	970	34,916	34,628			
MML and Philosophy	1,176	1,148	36,856	38,686	2,803	555	
Moore Library	983	992	23,976	20,261			
Physics	530	593	12,459	10,154			
Social and Political Sciences	583	484	7,373	9,884	4,225	3,563	
	To	tal Sessions	419,239	415,928	19,762	8,264	

TABLE 15 - PUBLIC Workstation Facility use from Colleges

N.B. Since users may use more than one location, user numbers are not additive between locations.

Location		Users	Sessions			
Managed Cluster locations]	PC	Mac	
Christ's	646	702	33,122	38,693		
Clare	835	719	54,749	51,695	7,600	1,506
Downing	812	876	23,516	28,645	246	449
Emmanuel	779	750	43,455	41,118	257	74
Fitzwilliam	769	718	32,234	33,911	287	230
Gonville and Caius	968	985	44,910	61,907	1,829	128
Homerton	1,104		51,220			
King's	1,038	840	43,898	41,402	780	528
Lucy Cavendish	112	130	1,248	1,956		
New Hall	587	520	27,962	30,265	46	32
Newnham	852	752	40,132	59,409	388	169
Peterhouse	363	407	29,583	29,735	796	435
Queens'	806	850	33,030	38,109	1,858	494
Robinson	553	580	26,772	28,155	161	108
St Catharine's	683	758	39,440	42,145	2,140	849
St John's	1,186	1,173	73,769	70,904	4,604	2,491
Selwyn	612	649	33,692	35,909		28
Sidney Sussex	579	601	47,276	52,101	626	135
Trinity	1,413	1,480	75,539	97,036	5,825	3,254
Trinity Hall	662	679	34,294	37,350	1,141	448
Wolfson	645	732	39,067	49,157		
		Total Sessions	828,908	869,602	28,584	11,358

TABLE 16 – PUBLIC WORKSTATION FACILITY REMOTE ACCESS

N.B. Since users may use more than one location, user numbers are not additive between locations.

Location	τ	Users	Sessions		
Remote Linux Locations					
Physics server	56	114	798	1,345	
Computer Laboratory servers	110	170	3,919	6,846	
Computing Service server	1,129	820	20,564	11,701	
	Tot	al Sessions	25,281	19,892	
Remote Storage Access					
NetStorage web interface	1,595	1,310	20,506	13,313	
WebDAV connections (no user d	lata)		3,797	2,854	
PWF Club Locations					
Churchill	42	50	101	438	
Magdalene	0	2	0	14	
Pembroke	0	3	0	3	
	Tot	al Sessions	101	455	

Central Unix Service

The Central Unix Service is a general user facility based on a multi-processor configuration, and is scheduled to close on 1 October 2008. Usage figures are given in percentage terms only and refer to the use of the Solaris 2 operating system. Note that the figures for the Computing Service include all systems, applications, and operational support activities, together with Unix-based training courses.

Tables 17(a) to 17(c) are for the Central Unix Service and show the relative use giving:

CPU	CPU time consumed as a percentage of total use
Users	Number of individuals making some active use of the system during the year

Figures are for 2006–07; 2005–06 figures are in italics.

TABLE 17(a) – Central Unix Service use

	(CPU	Users				
Arts and Humanities	10.9%	13.1%	128	(8.1%)	131	(7.6%)	
Humanities and Social Sciences	2.2%	2.8%	170	(10.8%)	198	(11.4%)	
Physical Sciences	19.6%	19.8%	312	(19.8%)	370	(21.4%)	
Technology	7.4%	11.2%	67	(4.2%)	84	(4.9%)	
Biological Sciences	5.6%	6.3%	205	(13.0%)	228	(13.2%)	
Clinical Medicine	1.7%	0.8%	74	(4.7%)	98	(5.3%)	
Other GB Institutions	44.5%	36.0%	216	(13.7%)	213	(12.3%)	
Council Institutions	1.6%	2.5%	66	(4.2%)	72	(4.2%)	
Miscellaneous	0.1%	0.0%	3	(0.2%)	0	(0.0%)	
TOTAL UNIVERSITY	93.4%	92.5%	1,241	(78.7%)	1,388	(80.2%)	
Colleges	5.3%	6.6%	302	(19.2%)	308	(17.8%)	
Research Councils	1.2%	0.6%	27	(1.7%)	26	(1.5%)	
Other external	0.0%	0.2%	7	(0.4%)	9	(0.5%)	
TOTAL EXTERNAL	1.3%	0.9%	34	(2.2%)	35	(2.0%)	
TOTAL	100.0%	100.0%	1,577	(100.0%)	1,731	(100.0%)	

Pelican Data Archive Service

Tables 18(a) to 18(c) show the use of the Pelican data archive service by institutions at the end of 2006–07 with end 2005–06 figures in italics. Ingest to Pelican was withdrawn at the beginning of 2007, and the system is scheduled for closure at the beginning of 2008.

Stored	Amount of data stored (in MB)
Users	Number of individuals with stored data

TABLE 18(a) – Pelican Data Archive Service

		S	stored			Us	sers	
Arts and Humanities	22,211	(15.7%)	25,316	(4.0%)	55	(7.6%)	68	(7.6%)
Humanities and Social Sciences	16,459	(11.6%)	22,476	(3.6%)	93	(12.8%)	128	(14.3%)
Physical Sciences	22,088	(15.6%)	25,463	(4.1%)	115	(15.8%)	152	(16.9%)
Technology	15,339	(10.8%)	16,966	(2.7%)	97	(13.3%)	114	(12.7%)
Biological Sciences	8,192	(5.8%)	10,302	(1.6%)	63	(8.7%)	80	(8.9%)
Clinical Medicine	2,425	(1.7%)	2,976	(0.5%)	22	(3.0%)	28	(3.1%)
Other GB Institutions	37,180	(26.3%)	500,616	(79.8%)	124	(17.1%)	138	(15.4%)
Council Institutions	4,213	(3.0%)	3,442	(0.5%)	23	(3.2%)	22	(2.5%)
Miscellaneous	833	(0.6%)	164	(0.0%)	10	(1.4%)	5	(0.6%)
TOTAL UNIVERSITY	128,940	(91.0%)	607,721	(96.9%)	602	(82.8%)	735	(81.9%)
Colleges	11,550	(8.2%)	18,167	(2.9%)	117	(16.1%)	150	(16.7%)
Research Councils	897	(0.6%)	835	(0.1%)	6	(0.8%)	7	(0.8%)
Other external	240	(0.2%)	287	(0.0%)	2	(0.3%)	5	(0.6%)
Total External	1,138	(0.8%)	1,122	(0.2%)	8	(1.1%)	12	(1.3%)
TOTAL	141,627	(100.0%)	627,010	(100.0%)	727	(100.0%)	897	(100.0%)

Software Sales

Table 19 shows totals of software sales items supplied by month. Tables 20(a) to 20(c) show software sales items supplied, by institution. General software (excluding media) and SunSpectrum items are shown separately. Table 21 lists software and other items distributed by the Computing Service. An item may be any of a full copy of a software package, an upgrade or a maintenance contract.

Figures are for 2006–07; 2005–06 figures are in italics.

TABLE 19 – SOFTWARE ITEMS SUPPLIED BY MONTH

		Ge	eneral		SunSpectrum			
August	1,241	(5.5%)	1,743	(9.4%)	250	(81.2%)	253	(89.7%)
September	3,864	(17.2%)	3,693	(20.0%)	5	(1.6%)		
October	2,301	(10.3%)	2,327	(12.6%)	3	(1.0%)	3	(1.1%)
November	1,590	(7.1%)	1,160	(6.3%)	3	(1.0%)	3	(1.1%)
December	1,278	(5.7%)	590	(3.2%)	13	(4.2%)		
January	1,144	(5.1%)	1.268	(6.9%)	3	(1.0%)		
February	1,702	(7.6%)	3,409	(18.4%)		. ,		
March	2,509	(11.2%)	1,075	(5.8%)	16	(5.2%)	15	(5.3%)
April	669	(3.0%)	543	(2.9%)	5	(1.6%)		
May	1,290	(5.7%)	663	(3.6%)	3	(1.0%)		
June	2,492	(11.1%)	979	(5.3%)	3	(1.0%)	3	(1.1%)
July	2,367	(10.5%)	1,027	(5.6%)	4	(1.3%)	5	(1.7%)
TOTAL FOR YEAR	22,447	(100.0%)	18,477	(100.0%)	308	(100.0%)	282	(100.0%)
	-							

TABLE 20(a) – Software items supplied by institution

		Ge	eneral		SunSpectrum			
Arts and Humanities	511	(2.3%)	269	(1.5%)		-		
Humanities and Social Sciences	1,579	(7.0%)	736	(4.0%)				
Physical Sciences	2,946	(13.1%)	1,565	(8.5%)	110	(35.7%)	91	(32.3%)
Technology	2,383	(10.6%)	1,682	(9.1%)	7	(2.3%)	11	(3.9%)
Biological Sciences	1,936	(8.6%)	1,344	(7.3%)	21	(6.8%)	25	(8.9%)
Clinical Medicine	1,574	(7.0%)	1,432	(7.8%)	81	(26.3%)	51	(18.1%)
Other GB Institutions	2,941	(8.6%)	1,856	(10.0%)	74	(24.0%)	84	(29.8%)
Council Institutions	2,264	(10.1%)	3,879	(21.0%)	4	(1.3%)	9	(3.2%)
Societies	18	(0.1%)	1	(0.0%)				
TOTAL UNIVERSITY	15,152	(67.5%)	12,764	(69.1%)	297	(96.4%)	271	(96.1%)
Colleges	6,632	(29.5%)	5,609	(30.4%)	7	(2.3%)	4	(1.4%)
Research Council institutions	36	(0.2%)	46	(0.2%)	4	(1.3%)	4	(1.1%)
Other external	627	(2.8%)	58	(0.3%)			3	(1.1%)
Total External	663	(3.0%)	104	(0.5%)	4	(1.3%)	7	(2.5%)
TOTAL	22,447	(100.0%)	18,477	(100.0%)	308	(100.0%)	282	(100.0%)

TABLE 21 – SOFTWARE SALES BY PRODUCT

	I	tems		Items		
Hummingbird eXceed	383	79	Microsoft Visual FoxPro Pro	6	2	
JRB Utils	1	1	Microsoft Visual SourceSafe	3		
Novell Netware	2	1	Microsoft Visual Studio	83	27	
ZENworks	3	508				
			PROGRAMMING LANGUAGES	92	29	
Communications	389	589		150	120	
ADGL 6 (ADGV	(0)	(0)	FileMaker Pro	159	120	
ARCInfo/ARCView	69	60	Microsoft Access	26	23	
<u>C</u>	(0)	(0)	Microsoft Excel	25	2	
GEOGRAPHIC	69	60	Microsoft Project	202	149	
Adobe Creative Suite	404		Spreadsheets, Databases And	412	294	
Adobe Illustrator	177		PROJECT MANAGEMENT			
Adobe Lightroom	5					
Adobe Photoshop	343		GenStat	57	135	
Corel Graphics Suite	925	695	MathCAD	11	35	
Corel Paintshop Pro	148	0,00	Minitab	155	471	
Imagine	2	4	S-PLUS	102	127	
Microsoft PowerPoint	10	21	SAS	16	7	
Microsoft Visio	166	197	SPSS	854	867	
	100	177	SPSS Science Products	35	70	
GRAPHICS AND DRAWING	2,180	917	51 55 500000 110 0000			
			STATISTICS	1,230	1,712	
Maple	51	86				
NAg Products	64	33	Adobe Acrobat	624		
			Adobe InDesign	73		
MATHEMATICAL/LIBRARIES	115	119	Corel WordPerfect	198	51	
			EndNote	1,211	755	
Microsoft Office	3,247	3,976	Microsoft FrontPage	7	18	
			Microsoft Publisher	20	24	
OFFICE PACKAGES	3,247	3,976	Microsoft Word	3	9	
			Sabon Font	29	310	
Apple Maintenance Programme	485	5				
KeyServer		1	WORD AND DOCUMENT PROCESSING	2,165	1,167	
Microsoft Exchange Server	750	1,754				
Microsoft SQL Server	162	216				
Microsoft Windows 2000	7	3				
Microsoft Windows 2003	1,385	1,545				
Microsoft Windows Vista	461					
Microsoft Windows XP	300	1,197				
PCounter	5	18				

OPERATING SYSTEMS/UTILITIES

3,555

4,739

	1	ltems			Items
Adobe Captivate	6		Sun Hardware maintenance	191	172
Adobe Contribute	49		(Total Number of machines)		
Adobe Dreamweaver	195		Sun Software under maintenance	117	110
Adobe Fireworks	21		(Licence, media, and documentation)		
Adobe Flash	48		· · · · · · · · · · · · · · · · · · ·		
Adobe GoLive	2		SUNSPECTRUM	308	282
Adobe Premier Pro.	22		-		
Adobe Web Suite	8		-		
Anti-Virus College/Dept Media	3,946	4,143	TOTAL		18,759
BBEdit	54	44	-		
Cisco VPDN	226	221			
Dragon Naturally Speaking	34	105			
Macromedia Studio	16				
Meeting Maker	10	12			
Microsoft Outlook	10	67			
Origin Professional	15	22			
SolidWorks	6	3			
Symantec GHOST	1,382	98			
CD/DVD Duplication and Printing	2,938	160			
MISCELLANEOUS	8,993	4,875			
TOTAL for Software	22,447	18,477			

Photographic and Illustration Service

Table 22 shows a breakdown of the work done by the Photographic and Illustration Service over the year.

Figures are for 2006–07; 2006–05 figures are in italics.

TABLE 22 – ITEMS PRODUCED OR PROCESSED

		Items
Colour Transparency Service		
Film processed (rolls)	1,243	1,997
Slides from flat copy	5	142
Slide duplication	228	157
Digital output on film	720	1,128
Black and White Service		
Film processed (rolls)	189	178
Colour Print Service		
Film processed (rolls)	1,707	2,816
Prints produced	67,460	138,984
Single item scans	44,976	20,920
Photography Service		
Graduation photographs	9,225	5,842
Congregation commissions	1,516	1,658
Other commissions	6	11
Framing Service		
Picture/Certificate frames	2,261	1,949
Graphics and Illustration Service		
Posters (total)	1,377	1,691
Laminated posters	717	739

Printing and Reproduction Service

Table 23 shows a breakdown of work done by the Printing and Reproduction Service. External work is charged for on a cost recovery basis.

Figures are for 2006–07; 2005–06 figures are in italics

TABLE 23 – IMPRESSIONS PRINTED

	Monocl	Colour (000s)		
Internal Computing Service	130.1	122.6	22.1	6.1
User Documentation (charged)	24.7	25.7	0.0	1.0
User Documentation (free)	5.8	10.1	3.1	4.4
Course material	209.4	250.1	52.2	20.5
PandIS	12.2	9.3	0.1	1.3
Software Sales	14.7	13.6	4.3	5.0
TOTAL COMPUTING SERVICE	396.9	431.5	81.9	38.3
External Work	839.9	1,064.2	39.2	44.1
TOTAL	1,236.8	1,495.7	121.1	82.4

Hardware Maintenance

Table 24 shows the number of contract (including warranty) and non-contract repairs undertaken for different types of equipment. Tables 25(a) to 25(c) show both the number of repairs and the number of staff hours spent on contract and non-contract repairs distributed amongst institutions.

Figures are for 2006–07; 2005–06 figures are in italics.

TABLE 24 – EQUIPMENT REPAIRED BY TYPE

PCs Apple Macintosh Printers Monitors PC Laptops Macintosh Laptops Others	Co	Non-Contract		
	270	208	111	107
Apple Macintosh	85	30	87	50
Printers	63	67	75	89
Monitors	6	0	7	11
PC Laptops	2	1	365	356
Macintosh Laptops	28	1	117	92
Others	6	8	110	104
TOTAL	460	315	872	809

TABLE 25(a) – Equipment repaired by institution

	Contract		Warranty				Non-Contract					
	I	No	H	lours		No	H	ours		No	H	lours
Arts and Humanities	2	2	3	4	21	17	38	53	37	37	40	90
Humanities and Social Sciences	1	0	2	0	43	18	70	57	68	79	53	148
Physical Sciences	52	48	92	138	83	38	155	129	109	95	97	167
Technology	0	0	0	0	29	14	47	41	33	35	28	41
Biological Sciences	33	24	59	73	24	9	63	27	118	116	159	166
Clinical Medicine	0	0	0	0	5	4	6	13	26	28	26	56
Other GB Institutions	27	36	41	90	67	44	142	171	95	16	120	25
Council Institutions	0	4	0	15	2	10	4	29	21	31	16	45
Societies	0	0	0	0	0	1	0	4	3	1	2	1
TOTAL UNIVERSITY	115	114	197	320	274	155	524	524	510	438	539	739
Colleges	17	21	33	54	53	24	127	81	360	351	307	483
Research Councils	0	0	0	0	0	1	0	4	1	3	1	5
Other external	0	0	0	0	1	0	1	0	1	17	1	39
Total External	0	0	0	0	1	1	1	4	1	20	1	44
TOTAL	132	135	230	374	328	180	652	609	872	809	848	1,266

Help Desk

Table 26 shows the monthly totals of calls dealt with by the Help Desk, and the proportion of them that are from IT support staff (TechLinks). Tables 27(a) to 27(c) show the number of Help Desk calls and users by institution.

Figures are for 2006–07; 2005–06 figures are in italics.

TABLE 26 - HELP DESK CALLS BY MONTH

N.B. These figures exclude calls made directly to the PC Support service (199 in 2006–07, 256 in 2005–06).

		Tota	Calls			TechLink Calls			
August	537	(7.4%)	611	(7.2%)	89	(16.6%)	97	(10.2%)	
September	678	(9.3%)	763	(8.9%)	122	(18.0%)	149	(15.6%)	
October	1,091	(15.0%)	1,027	(12.0%)	170	(15.6%)	165	(11.6%)	
November	728	(10.0%)	729	(8.6%)	145	(19.9%)	109	(13.2%)	
December	398	(5.5%)	441	(5.2%)	83	(20.9%)	75	(12.5%)	
January	635	(8.7%)	687	(8.1%)	144	(22.7%)	101	(10.5%)	
February	551	(7.6%)	647	(7.6%)	120	(21.8%)	116	(14.6%)	
March	540	(7.4%)	782	(9.2%)	114	(21.1%)	124	(14.3%)	
April	512	(7.0%)	649	(7.6%)	103	(20.1%)	97	(15.6%)	
May	522	(7.2%)	752	(8.8%)	109	(20.9%)	106	(18.7%)	
June	482	(6.6%)	666	(7.8%)	91	(18.9%)	121	(16.2%)	
July	600	(8.2%)	772	(9.1%)	106	(17.7%)	114	(15.1%)	
TOTAL FOR YEAR	7,274	(100.0%)	8,526	(100.0%)	1,396	(19.2%)	1,374	(13.6%)	

TABLE 27(a) – Help Desk Calls by institution

N.B. These figures include the calls made directly to the PC Support service (see above).

		С	alls			ι	Jsers	
Arts and Humanities	563	(7.5%)	786	(9.0%)	311	(8.0%)	397	(9.0%)
Humanities and Social Sciences	1,182	(15.8%)	1,388	(15.8%)	588	(15.2%)	644	(14.6%)
Physical Sciences	699	(9.4%)	832	(9.5%)	399	(10.3%)	473	(10.7%)
Technology	457	(6.1%)	542	(6.2%)	324	(8.4%)	355	(8.1%)
Biological Sciences	611	(8.2%)	693	(7.9%)	342	(8.8%)	381	(8.7%)
Clinical Medicine	483	(6.5%)	621	(7.1%)	315	(8.1%)	395	(9.0%)
Other GB Institutions	370	(5.0%)	385	(4.4%)	181	(4.7%)	215	(4.9%)
Council Institutions	439	(5.9%)	437	(5.0%)	237	(6.1%)	237	(5.4%)
Miscellaneous	42	(0.6%)	30	(0.3%)	30	(0.8%)	12	(0.3%)
TOTAL UNIVERSITY	4,846	(64.8%)	5,714	(65.1%)	2,727	(70.4%)	3,109	(70.6%)
Colleges	2,113	(28.3%)	2,523	(28.7%)	1,078	(27.8%)	1,223	(27.8%)
Research Councils	46	(0.6%)	47	(0.5%)	31	(0.8%)	34	(0.8%)
Other external (world-wide)	468	(6.3%)	498	(5.7%)	39	(1.0%)	37	(0.8%)
Total External	514	(6.9%)	545	(6.2%)	70	(1.8%)	71	(1.6%)
TOTAL	7,473	(100.0%)	8,782	(100.0%)	3,875	(100.0%)	4,403	(100.0%)

Training

Table 28 lists the training courses provided by the Computing Service; in each case the figures show the number of times a course was offered (sessions) and the total number of people attending. For courses given more than once, attendances at each are counted separately. Tables 29(a) to 29(c) show how attendances at courses were distributed amongst institutions.

Figures are for 2006–07; 2005–06 figures are in italics.

TABLE 28 - TRAINING COURSES

Windows: Getting the Basics Right	Ses	sions	Attendances		
Windows: Getting the Basics Right		3		33	
Windows: File Handling and Desktop Skills	1	3	13	22	
Windows: Keeping your PC Safe and Secure	2	3	40	59	
PC Hardware Basics: Getting Right Inside	3	3	19	18	
Macintosh: Getting to Grips with MacOS X	2	3	32	26	
Personal Computers	8	15	104	158	
Unix Systems: Introduction	6	6	260	200	
Vi editor: Introduction	1	1	12	3	
Emacs Editor: Introduction	1		17		
Unix Systems: Further Use		3		58	
Unix Systems: Commands for Intermediate Users	1		23		
Unix Systems: Remote Access	1		11		
Unix Systems: Building and Installing Software	2		156		
Unix Systems: Building RPMs	1		12		
Unix Systems: Shell Scripting I	3		80		
Unix Systems: Shell Scripting II	3		47		
Unix Systems: Shell Scripting Workshop	2		16		
Unix Systems: Shell Scripting for Scientists	1		48		
PWF Linux: Introduction	-	2	10	14	
Unix	22	12	682	275	
Scientific Computing: Introduction	2.		34		
How Computers Handle Numbers	1		14		
C: Introduction for those new to programming	1	2	72	93	
Visual Basic: Introduction	2	$\frac{1}{2}$	90	62	
PERL: Introduction for Programmers Part 1	1	1	48	30	
PERL: Introduction for Programmers Part 2	1	1	32	32	
Programming: Basics of Programming	1	-	54	02	
Programming: Python for Absolute Beginners	5		294		
Programming: Numerical Programming in Python	1		12		
Programming: Input and Output in Python	1		8		
Programming: Checkpointing in Python	1		6		
Programming: Introduction to Modern Fortran	1		84		
Programming: Converting Old to Modern Fortran	1		8		
Programming: Gnuplot for Simple Graphs	1		7		
Object Oriented Programming in Python	2		27		
Writing Better Programs: Program Design	1		17		
Programming: Help Programs Debug Themselves	1		6		
Programming: Mixed Language Linking	1		6		
Building Applications out of Several Programs	1		7		
Computer Architecture: for Programmers	1		37		
Pattern Matching Using Regular Expressions	2		70		
PROGRAMMING	29	6	933	217	

		Sessions	А	ttendances
Web Browsing and Searching Techniques	1	2	3	15
Web Authoring: Introduction to HTML	8	9	212	229
Web Authoring: Beyond the Basics	8	9	180	190
Web Authoring: Cascading Style Sheets and Tables	3	3	86	74
Web Authoring: Further Cascading Style Sheets	3	3	45	41
Web Authoring: Web Graphics	3	3	40	25
Web Authoring: XML Introduction	2	4	33	31
Web Authoring: Dreamweaver Introduction	3	3	61	57
Website Management: Accessibility		3		14
Website Management: Web Design, Indexing, etc.	3		39	
Website Management: Simple CGI and Forms	2	1	18	8
Website Management: Databases and Content	2	3	28	30
Web Server Management: Running Apache	1	1	24	38
Web Server Management: Server Security	1	1	13	21
Email: Managing Your Messages and Saving Time		2		13
Outlook for Email and Information Management		3		30
How Email Works: Technical Overview	1		31	
World-Wide Web and E-mail	41	50	813	816
Excel 2003: for Beginners	5	5	225	198
Excel 2003: Introduction	3	4	53	61
Excel 2003: Further Use	3		62	01
Excel 2003: Macros and Other Topics	2	3	46	91 17
Excel Programming Using VBA	1	5	40	4/
A coose 2002: East Trook	1	1	20	61
Access 2003. Past mack	1	3	124	58
Access 2003. Infroduction	2	3	124	58
Oracles Introduction	5	3	90	90
Filomation Dray Introduction	1	1	03	40
Filemaker Pro: Enuther Lice	2 1	2	20	23
Filemaker Pro: Further Use	1	1	8	J 12
Relational Database Design	1	1	19	15
SPREADSHEETS AND DATABASES	26	32	744	705
Word: Catting the Passias Dight		1		
Word: Taking Control of Decument Decim	1	1	16	4
Word: Taking Control of Document Design	1	3	10	51
Word: Mastering Advanced Features	1	2	30	20
Word 2002 for Designers	2	1	00	33
Word 2003 for Beginners	2	3	90	84
Powerpoint 2003 for Beginners: Quick Start	3	3	43	00
Powerpoint for Professional Presentations	3	3	04	48
Powerpoint: Further Use	3	3	41	48
Powerpoint: Creating Animated Presentations	1	2	16	22
Quark Apress: Introduction	1	2	10	22
Quark Xpress: Further Use	1	1	170	6
La I EX: Introduction	2	2	178	142
Illustrator: The Basics	3	2	4/	22
InDesign: Getting Started	3	3	42	39
EndNote for Computerised Bibliographies: Intro	9	9	228	204
Photoshop: Basic Techniques	7	7	156	162
Photoshop: Further Techniques	4	4	73	70
Digital Photography: iPhoto		1	-	3
1Work 2006: Keynote and Pages	1		1	
WORD AND DOCUMENT PROCESSING	50	52	1,108	1,004
Data analysis on the PWF: Which Software?		1		6
Simple Questionnaire Design and Data Entry		1		9
SPSS: Basic Part 1	6	6	115	127
SPSS: Basic Part 2	6	6	105	92
SPSS: Beyond the Basics	3 3	4	47	41
MATLAB: Getting Started	5	,	101	,1
			101	
MATHEMATICAL AND STATISTICAL COMPUTING	20	18	368	275

TABLE 28 cont.

	Sessions		Attendances	
Design and Typography Workshop	1	1	10	11
Teaching with VLEs: Introduction		1		4
Remote Access to Cambridge Resources	1	2	10	18
Dragon NaturallySpeaking: Voice Recognition	2	3	11	12
GarageBand for Music and Podcasting: Intro	1	1	8	13
CorelDraw: The Basics	1		14	
Other Courses	6	8	53	58
TOTAL	202	193	4,805	3,508

TABLE 29(a) – Course attendances

	Attendances			
Arts and Humanities	196	(4.1%)	168	(4.8%)
Humanities and Social Sciences	433	(9.0%)	413	(11.8%)
Physical Sciences	1,054	(21.9%)	384	(10.9%)
Technology	506	(10.5%)	348	(9.9%)
Biological Sciences	649	(13.5%)	476	(13.6%)
Clinical Medicine	508	(10.6%)	379	(10.8%)
Other GB Institutions	285	(5.9%)	182	(5.2%)
Council Institutions	275	(5.7%)	283	(8.1%)
Miscellaneous	52	(1.0%)	15	(0.4%)
TOTAL UNIVERSITY	3,958	(82.4%)	2,648	(75.5%)
Colleges	775	(16.1%)	765	(21.8%)
Research Councils	50	(1.0%)	67	(1.9%)
Other external	22	(0.5%)	28	(0.8%)
Total External	72	(1.5%)	95	(2.7%)
TOTAL	4,805	(100.0%)	3,508	(100.0%)