AccessionIndex: TCD-SCSS-T.20121208.126
Accession Date: 8-Dec-2012
Accession By: Dr.Brian Coghlan
Object name: History of the Department of Computer Science, Trinity College Dublin
Vintage: c.1969
Synopsis: The evolution of computer science as reflected in the long line of machines used by the department since its inception.

Description:
Computing in Trinity College Dublin began when an IBM 1620 Model 1 was delivered to the School of Engineering and installed in 21 Lincoln Place in Jun-1962 (Fig.1). The Dean of Engineering, Prof.Wright, set up a 'Computer Section' co-located with the machine, not a formal 'Department', but no-one except 'Computer Section' staff were there. Thus in 1962 Prof.Byrne moved into an office there, then Neville Harris joined in 1964, with a desk in the same office. The IBM 1620 was in the adjacent room with the system administrator, Vivian Killeen, along with about twenty M.Sc students punching and re-punching programs onto paper tape. Rosemary Murphy joined when Vivian married and emigrated to Australia. Next Francis Neelamkavil joined in 1965, then David Abrahamson. The IBM 1620 was operated until 1968 when it was temporarily replaced by an IBM 1130.

Apart from short courses, teaching commenced with an M.Sc course in Computer Applications in Oct-1963. A FORTRAN course was taught to Engineers shortly afterwards in 1964, and subsequently in 1966 a 'Computer Engineering' stream was introduced into the Engineering degree (BAI), which is a broadly based degree where specialization only occurs in the final years. Unlike most computer science departments (but like some that are notable, e.g. Edinburgh, MIT, Berkeley, Stanford) the department evolved from within an engineering school, resulting in a definite 'systems' orientation.

In Prof.J.G.Byrne's CV c.1975 (Fig.2) he described himself as "Lecturer in Computer Science" from Sep-1965, thereby implying that the Department had been established by then, but it is highly likely that this 1965 date is misleading. In his interviews [3] he says the department was established in 1969 and that he was appointed head. Before that he was first a lecturer in Computer Science from Sep-1965 to Jun-1967, then a senior lecturer in Computer Science Jun-1967 to Sep-1973, but both appointments were in the Graduate School of Engineering Studies (the TCD calendar confirms promotion to senior lecturer in 1967).

In actuality the Department of Computer Science was formally setup in 1969. While examining the Board minutes Prof.Jane Grimson found no reference to any.decision to establish the Dept.Computer Science in the Board minutes, but did find the decision to appoint Prof.J.G.Byrne as Head of the Dept.Computer Science with effect 1-Oct-1969 (minute 117/3 of meeting on 11-Jun-1969). The decision to establish the department may have been a Council decision, but unfortunately the Council papers are not catalogued and therefore not freely available.

The Graduate School (set up c.1966) was a self-financing umbrella that ran all the evening courses for undergraduates and postgraduates. Evening degrees and diplomas with a more commercial orientation commenced in 1968 and contributed greatly to the evolution of Irish computing. At one time the School ran ten evening courses; this hints

at how quickly the demand for computing courses developed. Simultaneously the BAI degree itself developed over the years into a course with two computing related streams in the final two years following two common years. Not surprisingly, the first chair of Computer Science was approved by the Board in 1973, and Dr.J.G.Byrne appointed.

The first mainframe computer, an IBM 360/44, was installed in the newly formed Computer Laboratory in 1969. In 1973 the very interesting 'zero-instruction-set' Burroughs B1714 was installed. In this machine program loading was preceded by loading the definition of the relevant instruction set. Sometime in the 1970s an IBM-360-like Interdata Model 70 minicomputer was purchased by the Dept.Mechanical Engineering, which the Dept.Computer Science eventually inherited. At the other end of the architectural spectrum, again some time in the 1970s, a Comdyna GP-6 / MicroHybrid-I analog computer was installed.

As the demand for graduates in Engineering and Computer Science was predicted to increase rapidly, the Industrial Development Authority (IDA) persuaded the Government to increase the number of graduates. As a result of the Government's Manpower Program in response to this proposal, the Graduate School of Engineering was expanded and also relocated to within Computer Science in Pearse Street, and the Moderatorship in Computer Science (Honours degree) was set up in 1979. To support this expansion a DEC VAX 11/780 was installed in 1979, continuing in use until 1988.

In the period 1980-88 a number of very interesting machines were installed in the department: in c.1980 a Western Digital WD90 Pascal Microengine (p-code machine for Pascal, an imperative high-level language); in c.1982 a VICOM Image Processor; in c.1983 a Symbolics 3600 Workstation (stack machine for Lisp, a functional language); also in c.1983 a Teradata DBC/1012 tree-structure database machine; in c.1984 a 16-node Intel iPSC Hypercube (4-dimensional cube of compute nodes); in c.1986 a Meiko CS1 Computing Surface (16 transputers, stack machines for Hoare's Communicating Sequential Processes); in c.1988 an ICL Clan 4; and again c.1988 an IBM AS/400 (IBM's successor to their System/38, unfortunately without capability addressing). The Teradata and Hypercube & Meiko show even in the 1980s the department was engaged in what are now the hot topics of big data and parallel computing.

The M.Sc course continued to run and was considerably changed over the years. Some specialised courses were introduced, notably an M.Sc. in Computer Systems Design. This was run on a part-time basis over two years in response to a suggestion from Digital Equipment Corp (DEC) in Galway. In support DEC installed a VAX 8530 in 1989, allowing the VAX 11/780 to be retired.

In 1989 the department also installed '*wilde*', an appropriately-named Apollo DN10000 VLIW (very long instruction word) mini-supercomputer, along with three DN3550 workstations, all running the Domain/OS operating system and the Mentor Graphics CAD package.

In the mid-1990s the main departmental system became a less exciting DECsystem MIPS-based machine, essentially a superset of their MIPS-based workstations. Then c.1997 the DECsystem was replaced by a slightly more exciting Sun Ultra Enterprise 450 using the UPA packet-switched interconnect.

Throughout this whole period of course many smaller machines were used within the department, both dedicated graphics machines and graphics workstations (for example, a Ramtek 6200A), a great array of IBM, Apple, Sun, HP and DEC personal machines, uniprocessor and multiprocessor servers of various types (e.g. Cromenco/Z80, Corollary, Heurikon), including slightly larger systems (like VAX 11/730, 11/750, MicroVAXes, and Alpha servers) within research groups. In c.1984 a Northstar Dimension became the first PC teaching tool in the department, with 8 workstations and one base unit, followed in later years by complete labs full of PCs.

The student numbers grew from 189 in c.1970-71 to 1123 in c.1996-97 (Fig.3). This put a lot of pressure on space. Initial computer science activities were based c.1962-1968 in 21 Lincoln Place. When the IBM 360/44 arrived in 1969 these activities moved to a Terrapin Hut in the Fellows Garden, now Fellows Square, and stayed there until 1972. The Dept.Computer Science, Dept.Statistics and Computer Lab were all based there, and a second Terrapin Hut was located nearby for use as a lecture theatre by these departments. The imminent building of the Arts block forced the Dept.Computer Science and Computer Lab to move to Pearse Street in Sep-1972. From 1972-88 the department had its base in 192-205 Pearse Street, but gradually outgrew that space; very crowded but companionable coffee/tea breaks were taken cheek-by-jowl in a room about three metres square. The move to the O'Reilly Institute in 1988 created a very temporary reprieve, but as computer science evolved so did the teaching and research numbers, and so did the pressure on space; at one point the department was spread over eight locations.

Research had always been active. The M.Sc. courses had a strong research component. Research became very active in the late 1970s with research on the development of packet switching networks. The Department was involved in EURONET and the information retrieval system built above it (Diane). In 1980 a Cambridge-ring (token) network was installed, as well as the first "Ethernet" (3Mbps network linking assemblies of MC68000 and network boards designed in Stanford University that Sun later used in its first workstations). In 1982 an ESPRIT (European Strategic Research Program in Information Technology) pilot project on an Expert System Builder (Project 96) with partners from five countries was funded by the European Commission. In the following year the Distributed Systems Group (DSG) received very substantial funding for a distributed systems project. This eventually led to the setting up of IONA Technologies, whose CORBA middleware for linking incompatible machines was very successful and installed in many countries. Work continued in the networks area especially in conjunction with the European Unix Users Group and led to the formation of a campus company, IEUNET, which was the first internet service provider in Ireland.

The Computer Vision Group specialised in the development of automated inspection systems for printed circuit boards, involving a substantial robotics component. Special purpose machines were acquired, including in c.1982 a Smart Arms robot manipulator, in c.1989 a 16-node transputer system designed in the department, and in c.1994 a Datacube MaxVideo VME-bus realtime image processor and Universal Machine Intelligence (UMI) RTX SCARA-configuration robot manipulator. Their work was funded by the Advanced Manufacturing Technology (AMT) program supported by the Irish Government and EU structural funds. It was eventually set up as the campus company M.V. Technology (later sold to Agilent, the instrument spinout of HP).

Throughout this entire period Prof.J.G.Byrne conducted a long personal campaign to computerise the TCD library 1872 accessions index (with entries in at least eighteen languages). This involved automatic optical character, word, language and lexicon recognition, eventually becoming the established online catalog for the old accessions, with a highly-praised user interface.

On the theoretical side there was work on axiomatic programming, logic programming, particularly an implementation of Prolog and control of logic programs and formal methods. There was more application-oriented work on text compression and an implementation of COMAL, a language for use in secondary schools. In 1985 major funding was secured from the European Commission for ESPRIT project ToolUse (Project 510); a large group worked on this project for five years and it also spun off a software tools company, Generics. And throughout the 1980s an interesting avenue of research was pursued on lambda-calculus silicon compilation, with associated efforts on integrated circuit design (first with home-grown tools but ultimately Mentor Graphics) as well as 3-d line-drawing and solid-modelling graphics libraries.

The first hardware research in the department was to design an input/output board for the Burroughs B1714. Next a Pascal-oriented microprocessor (POMP) was designed and built. Then a number of NS32000-based projects were conducted, initially on the theme of instruction-set virtualisation, and later on the design and construction of the first Irish Unix workstation (Trinity Workstation), ten of which were used for teaching purposes. This was followed towards the end of the 1980s by work on transputers, shared-memory multiprocessors and SCI (scalable coherent interconnect), along with related fault-tolerance and redundant storage arrays. From the mid-1990s work began on Beowulf clusters running Linux plus messaging libraries such as MPI or PVM, starting with a 4-node prototype cluster using SCSI as interconnect. A 16-node Beowulf cluster plus custom-built RAID storage was constructed c.1997, with strong support from Prof.J.G.Byrne, for use by the department. This was superceded by a number of increasingly sophisticated clusters and storage systems, eventually with about 2k Intel x86 cores and over 600TB of storage serving both the Grid-Ireland infrastructure and supporting CERN LHC computing. A substantial portion of all this became the basis of the SCSS School Cloud, the remainder supporting the LOFAR radiotelescope in Birr. For all of these hardware items see elsewhere in this catalog.

A great deal more detail can be found in the Memorial Discourse on Prof.J.G.Byrne presented on Trinity Monday, 2018, by Prof.Jane Grimson (of this department, and former Vice Provost) [2], in the nine interviews of Prof.J.G.Byrne by Maurice O'Keefe [3], in the book on Prof.J.G.Byrne edited by Chris Horn [4], and in the obituaries of Prof.J.G.Byrne [5, 6, 7]. The history of the department's major contribution to Irish networking and the Internet is outlined in [8]. Jean Maypother's compilation of the complete list of Computer Science courses run by the department [9] is preserved in the associated folder in this catalog. Further details can be found in the history of the Department of Statistics (now united with Computer Science in the School of Computer Science and Statistics) [10], the history of the Computer Laboratory (now IT Services) [11], and the history of computing education in Irish schools by Elizabeth Oldham [12].

Many thanks to all who have contributed to this document.

Academic Staff Rollcall

Start Date	Photo	Name	Entry into Department
1963		John Gabriel Byrne	Engineering postgrad in 1958, lecturer in 1963, Head of Dept.Computer Science 1968, foundation Professor of Computer Science 1973. Sadly passed away in 2016. R.I.P.
1964		Neville Harris	In 1960 I went to the USA for graduate studies, which involved extensive use of an IBM 650 computer (forerunner of the IBM 1620), solving engineering problems using FORTRAN, assembly language programs, and the Integrated Civil Engineering System (ICES). When Trinity purchased their IBM 1620 Professor Wright organised research funding and enticed me back in Jun-1964 to work with John Byrne to setup the new computer section' in the School of Engineering.
1969		Francis Neelamkavil	I arrived as an M.Sc student in Oct-1965, changed over to the Ph.D register in Jan-1966 under the supervision of John Byrne, and was awarded the first Ph.D degree in Computer Science in 1968, appointed Lecturer in 1969, Senior Lecturer in 1979, Fellow in 1987, and Professor in 1992. Computing facilities during my Ph.D days included an IBM 1620, paper tape/punch cards and an IBM typewriter. It took more than eight hours to solve a set of partial differential equations, and one could easily see a flickering configuration of lights indicating the execution of each instruction.
1970		Dan McCarthy	I graduated in West Australia, then became Prof.Byrne's Ph.D student from about Mar-1969, and then a Junior Lecturer in about September in either 1970 or 1971.
		David Abrahamson	I first saw the IBM 1620 in the Spring of 1963 - it was the year before I left school and I came as part of a group. Subsequently one of my friends was on the first MSc course and John allowed me to sit in on the short Fortran programming course which you have mentioned.
		Tony Redmond	
		Thomas J. Sweeney	Tom came from Donegal but had worked in Manchester University. Sadly he was killed in a car crash c.1979 in France, and the departmental Libraries in 200/201 Pearse Street and then the O'Reilly Institute were named after him. R.I.P.
		Michael Purser <?>	Either was Maths or Computer Science staff member from 1976 (possibly earlier) until at least 1983. His office in Pearse Street was opposite Francis Neelamkavil's office. He lectured on Data Networks (network protocols, RS-232 signalling, etc).
		Marie Redmond	

		Mary Sharp	
		Dudley Dolan	
		Alan Mullally	
		Tim O'Donaghue	Tim was an external lecturer highly involved in the Systems Analysis Diploma course. R.I.P.
		Denise Leahy	
		Lewis Leith	
1983		Dave Vernon	I was a BA, BAI student from 1975-1979 and returned to do a Ph.D. in 1981, becoming a full-time lecturer in 1983.
1992		Gerry Lacey	I was a BA-BAI student from 1986-1991 and from 1992 I was a research engineer on an EU project on circuit board inspection with the Computer Vision Group. In 1994 I became a PhD student in mobile robotics and a temporary lecturer in 1995. I became full-time in 1998 when the departure of the Iona founders created posts within the department.
1979		Jeremy Jones	
1979		Chris Horn	I was a BA/BAI student from 1974-78, and I vaguely recall having had physical access to the Terrapin hut in the Fellows Garden in the early year(s) of my degree. I started an M.Sc in Sep-1978, but then transferred to a part-time Ph.D when I joined the faculty (I finished my Ph.D at the end of Aug-1983). I remember that Jeremy Jones, Mike Brady and I all started the same day as full-time academic staff in Sep-1979.
1979		Mike Brady	
		Robert Friel	Very talented and likeable South African academic, who sadly died on sabbatical in New Zealand. R.I.P.
		Brendan Lynch	South African compatriot to Rober Friel, working on the Comal project funded by the Dept of Education.

1980		Brian Coghlan	I joined from the IIRS, having applied in 1979 for a post in Physics, but then been called by Staff Office to say that Prof.Byrne would like me to consider joining Computer Science. With kindness and goodwill from several chats with Prof over coffee I flew home in Feb-1980 to West Australia (I'd been away for 13 years and my wife and family had never been there)., and returned in Oct-1980 to start in TCD.
1972		Kevin Ryan	When we graduated - all 7 of us - in 1971, there were few takers for the penury of graduate study versus the burgeoning prospects in industry. I started an M.Sc under Prof Byrne, but as the evening B.Sc became very popular, I became a Junior Lecturer at the tender age of 22. The day after I was made permanent - after 3 years probation - I resigned and took to training programmers in the Zambian mining industry. Some years later, after a spell at the Univ.Kansas, I re-joined the dept, my rampant ingratitude mercifully forgotten.
		John Gallagher	
1992		Padraig Cunningham	I came to TCD Computer Science as a PhD student on 1st April 1985. I completed my PhD in 1988 under the supervision of Mike Brady and left to work in Industry. In September 1992 I returned to the Department as a lecturer and stayed until September 2006.
		Jane Grimson	
1981		Sean Baker	I completed my B.A, B.A.I degrees in 1980, having taken as many computing and hardware courses as possible. So few students did this at the time that three of us undergrads were invited to the 1979 Computer Science staff Christmas party! Prof paid for the wine. After completing an M.Sc. in Sep-1981, I started a year's part time lecturing on the IBM 360 assembly language (whose idea was it to teach this to undergrads as their first programming language?), and was appointed fulltime in Sep-1982.
1987		Annrai O'Toole	I graduated from TCD B.A.I (Computer Engineering) in 1987, and immediately joined the dept as a Research Assistant, 'concurrently' working on an M.Sc in parallel computing in the Distributed Systems Group (DSG) and lecturing undergraduates on Systems Software. I finished up in TCD in Apr-1991 when I took the adventurous (for those days) plunge to become the very first employee of IONA.
		Alexis Donnelly	
		Brendan Tangney	

		Vinny Cahill	
1991		Ken Dawson-Howe	I graduated from our Computer Science programme in 1987, went to work in banking in Japan, returned to do a PhD in Computer Vision and joined the lecturing staff in 1991.
		Hugh Gibbons	
1990		Lucy Hederman	When I arrived in 1981 as an undergrad, the shelves in the VAX terminal room we used were heaving with boxes of punch card programs. I started a Ph.D in Oct-1988 and was appointed a lecturer in Oct-1990. But my first experience of the dept was as a BAI student in 1981 - we programmed on the VAX 11/780, booking 20min slots at the terminals, to a max of 2 hours per week. In 3rd year we were the first Microprocessor Systems cohort to use the Motorola 68000.
		Arthur Hughes	
1984		Donal O'Mahony	As a BAI 'Computer' student 1978-82, I cut my computing teeth preparing punched card programs for the Burroughs B1714. The next day was spent pouring over printed memory dumps hoping for the right answer not the dreaded ABEND. Later I used the DEC 2020 or IBM 360 / GUTS, and in final year the Ramtek and VAX 11/780, also a PDP/11. I joined the dept in 1984, and used the Northstar a lot. Being uncool, I used a PC with X-windows on my desktop, not cloud servers with infinite compute and storage, not even a Mac.
		Vinny Wade	

Start Date	Photo	Name	Entry into Department
		Andrew Butterfield	
1980		Colleen Kitchen	American academic from Kansas who worked in industry in Dublin, then joined the dept in 1980, working on the Comal project funded by the Dept of Education.
		Mícheál Mac an Airchinnigh	
1995		Steven Collins	I started in TCD as a Computer Science undergrad in 1987, graduated in 1991, then started a Ph.D in Computer Graphics, financially supported by Prof. Byrne (thanks Prof!). I joined the staff of the department as lecturer in 1995. Together with Hugh Reynolds, in 1993 I started the ISG computer graphics research group, and in 1998 formed the spinout company Havok commercialising results of the group. I was fortunate to be able to repeat this with GV2 and Kore.
1996		Hugh Reynolds	
		Paddy Nixon	
		Andy Nisbet	
		Simon McGinnes	
		Vincent Jordan	
		Mike Reape	
1990		Fergal Shevlin	In 1989 I began an M.Sc with Francis Neelamkavil. Little did he know my motivation was to escape a boring job in DEC. One of my first tasks was to buy a 500 MB disk for his DECStation 3100. It cost £12,000, equal to my DEC salary. In 1990 Francis urged me to apply for a lectureship; at the interview Neville Harris liked how I'd typeset my application form on a Mac! I started on the same day as Lucy Hederman and Mark Keane, sharing office with Lucy for 6 yrs. Prof was a great support through my Ph.D, giving me a fancy RS/6000.
1990		Mark Keane	Around 1985 I remember sneaking into to a room in Computer Science in Pearse St to use an Apple Lisa. I started in TCD in Sep-1990. I remember that soon after we were using Sun Workstations in my Lisp course. Also in 1990 there was museum room around the corner from my office where I remember seeing a Whitechapel Workstation (I had seen these in QMC where I had worked in London).
		Hans-Jurgen Kugler	
		Carol O'Sullivan	

Support Staff Rollcall

Start Date	Photo	Name	Entry into Department

1961		Michael Rogers	Dr Brendan Scaife interviewed me for the position of Senior Electronics Technician at the Electronics Laboratory TCD in 1961. After a final interview with Professor William Wright I was offered the position. I was the first electronics technician in the Engineering School, and very involved with the IBM 1620 installation. Later I became Managing Director of the Bull Cara Group.
		Vivian Killeen	The first operator, a Mathematics graduate from Cork, who subsequently married and emigrated to Australia.
		Rosemary Murphy	Subsequently married Brian Welsh.
1978		Ann Gallagher	After Gerry Giltrap mentioned that CompSci was expanding, I had a chat with Dr.Byrne (no interview!). That's how I arrived in the Graduate School of Engineering Studies, situated in the Dept.Computer Science, from another office in College c.1978. I worked under Dr.Byrne and Prof.Wright, and stayed until my retirement in 1998.
		Daphne Gill	I started work in the dept in the early 1970s as John Byrne's secretary. At that time the dept was located in a terrapin hut in the Fellows Garden behind the Old Library (where the Arts building now is). I feel very lucky to have worked in one of the best depts in college - thanks John! A very hard wrench to leave but as John said Lee Lyons "poached" me to work in the Provost's Office in the mid 1970s, working there until I retired.
		Helen Smith	
1971		Bernadette Greaney	After working in the Computer Lab in 1970, then at Boston University, I received a letter from Dr.Byrne (as he was then known) asking me to join his new dept in Mar-1971. I worked with him, Neville Harris, Dr.Francis, Martin Newell, and Rosemary Welsh who were staff, also David Abrahamson, Kevin Ryan, Dan McCarthy, Mike Nolan and Robert Friel who were students, but some became members of staff afterwards. I left the department to move to Cork in March 1978. Happy times!
		Suzie Packenham-Walsh	Subsequently married Chris Horn.
		John Green	
1977		Mike Nowlan	I did the M.Sc in Computer Applications in Oct-1971 to Jun-1972, then worked in the Computer Lab Jul-1972 to Dec-1975, Sweden Jan-1976 to Dec-1976, Computer Science Jan-1977 to Dec-1977, back to Computer Lab Jan-1978 to Sep-1979, Computer Science Oct-1979 to Jun-1995, finally IS Services Jul-1995 to Dec-2007.
1979		Bryan Alton	In 1968 I visited Dunsink Observatory and saw the Dept's original IBM 1620. My BAI (1978) project under Dr.Harris was on an LSI-11/23. I started a CompSci M.Sc in 1978 under WFC Purser on a DEC-20 X.25 interface. I joined the dept in 1979, working with Mike Nowlan setting up the shiny new VAX 11/780, doing projects like VAX Unix-32V, a closed VMS environment for B.A.(Mod), and an A4 pen plotter for Robert Friel. I completed my M.Sc and left the dept in 1982.

Year	Photo	Name	Description
1982		Gerry O'Brien	I first met Prof. Byrne is the summer of 1977. He advised me to do the B.Sc in Computer Science and I enrolled that autumn. We programmed the IBM 360 in assembler using punch cards. He taught me numerical methods. I joined the Computer Lab in Nov-1978 as a Cobol Programmer and moved to Computer Science as a Systems Programmer on 1-Apr-1982. I was appointed Systems Manager in Feb-2009.
		Rachel Noctor	
1988		Maire MacAnally	I graduated in Maths in 1985, sharing lectures with Engineering Students. I started temp work in the Computer Lab in Sep-1987 but shortly after saw a permanent Junior Programmer job advertised by Computer Science Department. I applied, and joined the department in Feb-1988. I completed an M.Sc in Computer Science in 1992, under the supervision of Jane Grimon.
		Marion Mannion	
1986		Mary Murray	I joined the department in 1986.
		Tom Irwin	
		Brendan Kiernan	
		Seamus Guiry	
		Tom Meleady	Married Catherine Keane B.A.(Mod) and emigrated to Vancouver, where he is now a 'Mounty'.
1993		Tom Kearney	I joined the dept in Apr-1993 having worked for 14 years in the minicomputer industry. The following years were very significant in terms of growth and expansion in the dept. It was a great field of work to be involved in with significant investment in computer hardware labs and new networking technologies, and (unusually for a CompSci dept but showing its Engineering roots) lots of hardware research.
		James Murphy	
1989		Cathal O'Connor	Prior to joining the dept I'd graduated from DIT (1984) with a Diploma in Electronic and Telecommunications Engineering, then worked in the computer industry in Ireland at Floating Point Systems. After I came to the dept in 1989 I progressed to a B.Sc Computer Science (1993) and an M.Sc in IT in Education (2002), both from TCD.
		Stephen Kenny	
1996		Rosemary Power	I came to TCD following a career in UCD Computing Services. In 1996 I started as a System Administrator in the Dept.Computer Science, in tandem with studying for and graduating with B.Sc. in Information Systems (2000), M.A., and M.Sc. Health Informatics (2003).
		Willie O'Connor	

		Monica Sweeney	Sadly Monica died in Feb-2005, a large number in the department went to the funeral. R.I.P.
		Criddy Taylor	
		Colin Manning	
1997		Natasha Blanchfield	
1998		Gillian Long	

The homepage for this catalog is at: https://www.scss.tcd.ie/SCSSTreasuresCatalog/
Click *'Accession Index'* (1st column listed) for related folder, or *'About'* for further
guidance. Some of the items below may be more properly part of other categories of
this catalog, but are listed here for convenience.

Accession Index	Object with Identification
TCD-SCSS-T.20121208.126	History of the Department of Computer Science, Trinity College Dublin. The evolution of computer science as reflected in the long line of machines used by the department since its inception, c.1969
TCD-SCSS-V.20180409.001	Jane Grimson, Memorial Discourse on Prof.J.G.Byrne presented on Trinity Monday, 2018.
TCD-SCSS-T.20121208.128	Department of Statistics, Trinity College Dublin. The evolution of the Dept.Statistics as reflected in the machines used since its inception c.1968.
TCD-SCSS-T.20121208.127	The Computer Laboratory, Trinity College Dublin. The evolution of Trinity College Dublin computing services as reflected in the long line of machines used by the Computer Lab since its inception c.1968.
TCD-SCSS-V.20180124.001	Elizabeth Oldham, History of Computing Education in Irish Schools. Video of presentation to Computers in Education Society of Ireland (CESI) Computer Science Symposium, September 2017.
TCD-SCSS-V.20180312.001	Memorium and Obituaries for Prof.J.G.Byrne, born: 25-Jul-1933, died: 16-Apr-2016, see: https://scss.tcd.ie/SCSSTreasuresCatalog/Prof-John-Gabriel-Byrne-1933-2016.pdf
TCD-SCSS-V.20180312.002	Portrait of Prof.John Gabriel Byrne, Trinity College Dublin, portrait by Atsushi Kaga, 2005.
TCD-SCSS-V.20160929.001	Nine interviews of Prof.J.G.Byrne, TCD. O'Keefe, Maurice & Jane, 'Irish Life and Lore, Trinity College Dublin, John Byrne', CD no.55, 68:50 mins, MPEG 160kbps. Vintage: c.2012.
	Ed: Chris Horn, Professor John Byrne: Reminiscences: Father of Computing in Ireland, 2017. ISBN-10: 1520696841, ISBN-13: 978 1520696843.
	Prof.J.G.Byrne, Computerisation of the TCD Library 1872 Accessions Index.
TCD-SCSS-T.20160323.001	Networking and the Internet, Networking hardware and the arrival of the Internet in Ireland, c.1991.
TCD-SCSS-T.20121208.019	IBM 1620. TCD's first computer, purchased in 1962. Vintage: c.1959.
TCD-SCSS-T.20121208.020	IBM 1130. Replaced IBM 1620, was rented in 1968 while awaiting IBM 360/44. Vintage: c.1965.
TCD-SCSS-T.20121208.018	IBM 360/44 console and subsystems. Control panel, CPU logic, core memory from IBM 360/44 installed in Trinity College Dublin to provide a service to all sectors of College, including the Dept.Computer Science, from 1969. Vintage: c.1965.
TCD-SCSS-T.20121208.032	Burroughs 1714. Commercial zero-instruction-set computer used by the Dept.Computer Science from 1973-1979. Just two prototyping boards survive. Vintage: c.1972.
TCD-SCSS-T.20121208.015	Interdata Model 70. 16-bit 'IBM-360-like' commercial minicomputer. Vintage: c.1970.
TCD-SCSS-T.20121208.027	Comdyna GP-6 and MicroHybrid I. Analog computer, unsure of vintage, could be anytime between 1968 and 2004 (only internals changed). Vintage: 197x.
TCD-SCSS-T.20121208.035	DEC VAX 11/780 control panel and subsystems. Control panel, CPU logic, memory and disk drives from VAX11/780 used by the Dept.Computer Science from 1979-1988. Vintage: c.1978.
TCD-SCSS-T.20121208.043	Western Digital WD90 Pascal Microengine. Commercial microcoded high-level language machine to execute Pascal p-code, based on WD9000 chipset developed for LSI-11 (see VAX 11/780 Console Processor elsewhere in collection). Vintage: c.1980.
TCD-SCSS-T.20121208.038	VICOM Image Processor boards. Versabus PCBs from the VICOM image processor used by the Dept.Computer Science during 1982-1990, one of the first generation of dedicated image processors. Vintage: c.1982.
TCD-SCSS-T.20121208.037	Symbolics 3600 'Workstation. Second-generation commercial Lisp machine. Vintage: c.1983.
TCD-SCSS-T.20121208.059	Teradata DBC/1012 Database Machine. First commercial tree machine, SCSS's largest treasure (and one of its most significant). Vintage: c.1983.
TCD-SCSS-T.20121208.063	Intel iPSC Hypercube. First commercial hypercube parallel machine. Vintage: c.1984.
TCD-SCSS-T.20121208.076	Meiko CS1 Computing Surface. First commercial Transputer-based microcomputer. Vintage: c.1986.
TCD-SCSS-T.20121208.067	ICL Clan 4. Commercial MC68020-based UNIX workstation.Vintage: c.1988.
TCD-SCSS-T.20121208.068	IBM AS/400. IBM's successor to the System32/34/38 but without capability addressing. Vintage: c.1988.
TCD-SCSS-T.20121208.089	VAX 8530. Departmental system, successor to VAX 11/780. Vintage: c.1989.
TCD-SCSS-T.20121208.090	Apollo DN10000. Minisupercomputer, with PRISM multi-chip CPU. Vintage: c.1988.
TCD-SCSS-T.20121208.091	Apollo DN3550 Workstation. CAD workstation, MC68030-based, running Apollo Domain/OS.

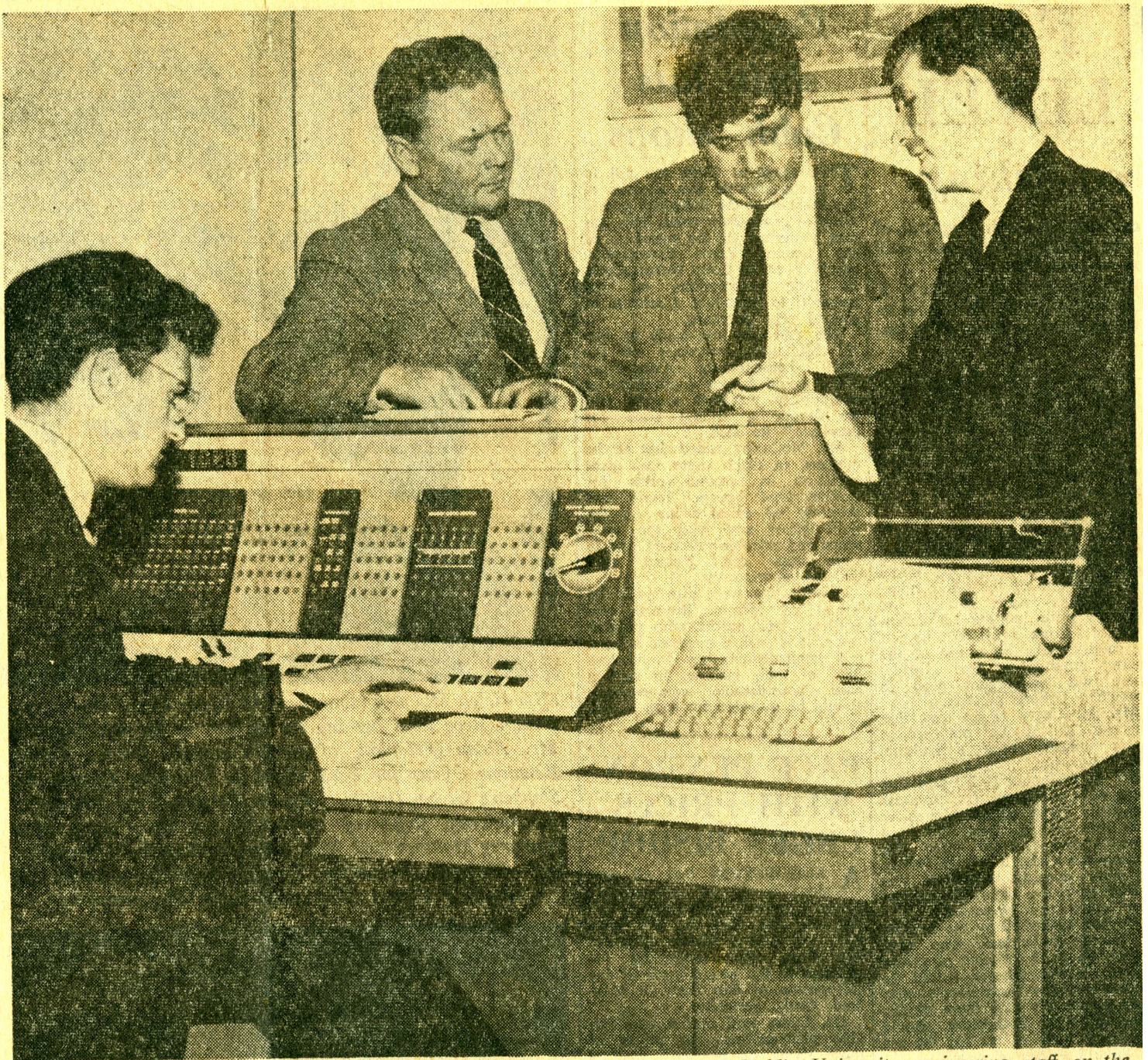|	
	Vintage: c.1989.
TCD-SCSS-T.20121208.129	DECsystem 5830. MIPS-based departmental system. Vintage: c.1993.
TCD-SCSS-T.20121208.093	Sun Ultra Enterprise 450. Departmental system that used UPA packet-switched interconnect. Vintage: c.1997.
TCD-SCSS-T.20121208.033	Cromenco, Modular industrial Microcomputer. Vintage: c.1980.
TCD-SCSS-T.20141120.005	Ramtek 6200A. Rackmounted graphics display system. Vintage: c.1979
TCD-SCSS-T.20121208.082	Corollary XM SMP. Second-generation of first commercial IBM-PC compatible symmetric multiprocessor (SMP). Vintage: c.1992.
TCD-SCSS-T.20121208.048	Heurikon HSE-10R. 5U rackmounted modular industrial microcomputer, equipped with image processing boards. Vintage: c.1988.
TCD-SCSS-T.20121208.034	Northstar Dimension. The first PC teaching tool in the department, with eight 'thin' workstations served by two base units. Vintage: c.1984.
TCD-SCSS-T.20141212.001	Sun Pre-production SUN-1 Workstations. Seminal workstation developed by Stanford University, with first-generation 3Mbps Ethernet. Vintage: 1980.
	16-node transputer system designed in the Dept.Computer Science, TCD. Vintage: c.1989.
	Datacube MaxVideo VME-bus realtime image processor. Vintage: c.1994.
TCD-SCSS-T.20121208.042	POMP Pascal/Modula-II machine. High-level language machine to execute Pascal & Modula-II p-code. Vintage: c.1979.
TCD-SCSS-T.20150217.004	NS16032 Virtualisation Testbed. First NS16032 system built in the Dept.Computer Science, TCD, with a support processor made by National Semiconductor Ltd and experimental file and graphics processors made in TCD. Vintage: c.1981.
TCD-SCSS-T.20150416.002	NS16032 MiniDSK16 File Processor with Shugart SA460 Floppy Disk Drive. Second NS16032 system built in the Dept.Computer Science, TCD, to develop firmware for the Virtualisation Testbed File Processor. Vintage: c.1983.
TCD-SCSS-T.20121208.066	Trinity Workstation. First Irish-designed UNIX system. Vintage: c.1986.
TCD-SCSS-T.20121208.094	Experimental SCSI Cluster. 4-node prototype cluster using SCSI as interconnect. Vintage: c.199x.
TCD-SCSS-T.20121208.095	csTCDie Beowulf Cluster. Departmental cluster using 100Mbps Ethernet as interconnect. Vintage: 199x.
TCD-SCSS-T.20121208.098	csTCDie Grid Site Beowulf Clusters and Datastore. Complex of clusters & storage, participant in DataGrid, EGEE, EGI, and CERN LHC computing. From 2013 repurposed as SCSS Cloud. Vintage: c.2009.
TCD-SCSS-V.20160425.003	Class Photograph, TCD Engineering School BAI Class of 1966-1970. Trinity College Dublin, photograph that includes first undergraduate TCD Computer Science class. Vintage: 1970.
TCD-SCSS-V.20180313.001	Class Photograph, TCD Engineering School BAI Class of 1970-1971, Trinity College Dublin. Vintage: 1971.
	Class Photograph, TCD Engineering School BAI Class of 1971-1972, Trinity College Dublin. Vintage: 1972.
TCD-SCSS-V.20180312.003	Class Photograph, TCD Engineering School BAI Class of 1972-1973, Trinity College Dublin. Vintage: 1973.
	Class Photograph, TCD Engineering School BAI Class of 1973-1974, Trinity College Dublin. Vintage: 1974.
TCD-SCSS-V.20180312.004	Class Photograph, TCD Engineering School BAI Class of 1974-1975, Trinity College Dublin. Vintage: 1975.
TCD-SCSS-V.20180312.005	Class Photograph, TCD Engineering School BAI Class of 1975-1976, Trinity College Dublin. Vintage: 1976.
TCD-SCSS-V.20180312.006	Class Photograph, TCD Engineering School BAI Class of 1976-1977, Trinity College Dublin. Vintage: 1977.
TCD-SCSS-V.20180222.003	Class Photograph, TCD Engineering School BAI Class of 1977-1978, Trinity College Dublin, photograph with accompanying identification. Vintage: 1978.
TCD-SCSS-V.20180217.001	Class Photograph, TCD Engineering School BAI Class of 1978-1979, Trinity College Dublin, photograph with accompanying identification. Vintage: 1979.
	Class Photograph, TCD Engineering School BAI Class of 1979-1980, Trinity College Dublin. Vintage: 1980.
	Class Photograph, TCD Engineering School BAI Class of 1980-1981, Trinity College Dublin. Vintage: 1981.
TCD-SCSS-V.20180312.007	Class Photograph, TCD Engineering School BAI Class of 1981-1982, Trinity College Dublin. Vintage: 1982.
TCD-SCSS-V.20180222.002	Class Photograph, B.A.(Mod) Computer Science class of 1982-1983, Trinity College Dublin,

	photograph with accompanying identification. Vintage: 1983.
TCD-SCSS-V.20180312.008	Class Photograph, TCD Engineering School BAI Class of 1982-1983, Trinity College Dublin. Vintage: 1983.
	Class Photograph, B.A.(Mod) Computer Science class of 1983-1984, Trinity College Dublin. Vintage: 1984.
TCD-SCSS-V.20180312.009	Class Photograph, TCD Engineering School BAI Class of 1983-1984, Trinity College Dublin. Vintage: 1984.
	Class Photograph, B.A.(Mod) Computer Science class of 1984-1985, Trinity College Dublin. Vintage: 1985.
TCD-SCSS-V.20180312.010	Class Photograph, TCD Engineering School BAI Class of 1984-1985, Trinity College Dublin. Vintage: 1985.
	Class Photograph, B.A.(Mod) Computer Science class of 1985-1986, Trinity College Dublin. Vintage: 1986.
TCD-SCSS-V.20180312.011	Class Photograph, TCD Engineering School BAI Class of 1985-1986, Trinity College Dublin. Vintage: 1986.
	Class Photograph, B.A.(Mod) Computer Science class of 1986-1987, Trinity College Dublin. Vintage: 1987.
	Class Photograph, TCD Engineering School BAI Class of 1986-1987, Trinity College Dublin. Vintage: 1987.
	Class Photograph, B.A.(Mod) Computer Science class of 1987-1988, Trinity College Dublin. Vintage: 1988.
	Class Photograph, TCD Engineering School BAI Class of 1987-1988, Trinity College Dublin. Vintage: 1988.
	Class Photograph, B.A.(Mod) Computer Science class of 1988-1989, Trinity College Dublin. Vintage: 1989.
	Class Photograph, TCD Engineering School BAI Class of 1988-1989, Trinity College Dublin. Vintage: 1989.
	Class Photograph, B.A.(Mod) Computer Science class of 1989-1990, Trinity College Dublin. Vintage: 1990.
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	Class Photograph, TCD Engineering School BAI Class of 1991-1992, Trinity College Dublin. Vintage: 1992.
	Class Photograph, B.A.(Mod) Computer Science class of 1992-1993, Trinity College Dublin. Vintage: 1993.
	Class Photograph, TCD Engineering School BAI Class of 1992-1993, Trinity College Dublin. Vintage: 1993.
	Class Photograph, B.A.(Mod) Computer Science class of 1993-1994, Trinity College Dublin. Vintage: 1994.
	Class Photograph, TCD Engineering School BAI Class of 1993-1994, Trinity College Dublin. Vintage: 1994.
	Class Photograph, B.A.(Mod) Computer Science class of 1994-1995, Trinity College Dublin. Vintage: 1995.
	Class Photograph, TCD Engineering School BAI Class of 1994-1995, Trinity College Dublin. Vintage: 1995.
TCD-SCSS-V.20180315.001	Class Photograph, B.A.(Mod) Computer Science class of 1995-1996, Trinity College Dublin. Vintage: 1996.
	Class Photograph, TCD Engineering School BAI Class of 1995-1996, Trinity College Dublin. Vintage: 1996.
	Class Photograph, B.A.(Mod) Computer Science class of 1996-1997, Trinity College Dublin. Vintage: 1997.
	Class Photograph, TCD Engineering School BAI Class of 1996-1997, Trinity College Dublin. Vintage: 1997.

	Class Photograph, B.A.(Mod) Computer Science class of 1997-1998, Trinity College Dublin. Vintage: 1998.
	Class Photograph, TCD Engineering School BAI Class of 1997-1998, Trinity College Dublin. Vintage: 1998.
	Class Photograph, B.A.(Mod) Computer Science class of 1998-1999, Trinity College Dublin. Vintage: 1999.
	Class Photograph, TCD Engineering School BAI Class of 1998-1989, Trinity College Dublin. Vintage: 1999.
TCD-SCSS-V.20180222.001	Photograph, Dept.Computer Science Retreat, 18-Sep-2002. Trinity College Dublin, photograph with accompanying identification. Vintage: 2002.

See the related documents in the associated folder in this catalog.

References:

1. Trinity College Dublin, *School of Computer Science and Statistics*, see:
    https://www.scss.tcd.ie/
    Last viewed 14-Feb-2018.

2. Jane Grimson, *Memorial Discourse on Prof.J.G.Byrne*, presented on Trinity Monday, 2018, Trinity College Dublin, see elsewhere in this catalog.

3. O'Keefe, Maurice & Jane, *Nine interviews of Prof.J.G.Byrne, TCD.*, 'Irish Life and Lore, Trinity College Dublin, John Byrne', CD no.55, 68:50 mins, MPEG 160kbps, c.2012, see elsewhere in this catalog.

4. Ed: Chris Horn, *Professor John Byrne: Reminiscences: Father of Computing in Ireland*, ISBN-10: 1520696841, ISBN-13: 978-1520696843, 2017, see elsewhere in this catalog.

5. Irish Times, *The father of computing in Ireland*, Saturday, 23-Apr-2016, see:
    https://scss.tcd.ie/SCSSTreasuresCatalog/Prof-John-Gabriel-Byrne-1933-2016.pdf
    Last browsed to on 14-Feb-2018.

6. The Library of Trinity College Dublin, *Passing of Professor John Byrne*, Memorium, 28-Apr-2016, see:
    https://www.tcd.ie/library/news/passing-of-professor-john-byrne/
    https://scss.tcd.ie/SCSSTreasuresCatalog/Prof-John-Gabriel-Byrne-1933-2016.pdf
    Last browsed to on 14-Feb-2018.

7. Irish Computer Society, *Obituary: ICS Distinguished Fellow - Professor John Byrne*, 25-Apr-2016, see:
    https://www.ics.ie/news/obituary-ics-distinguished-fellow-professor-john-byrne
    https://scss.tcd.ie/SCSSTreasuresCatalog/Prof-John-Gabriel-Byrne-1933-2016.pdf
    Last browsed to on 14-Feb-2018.

8. School of Computer Science and Statistics, *Networking and the Internet, Networking hardware and the arrival of the Internet in Ireland*, c.1991, see elsewhere in this catalog.

9. Jean Maypother, *Computer Science UG courses 1967 to 2009*, 2018, see the associated folder in this catalog

10. School of Computer Science and Statistics, *Department of Statistics, Trinity College Dublin. The evolution of the Dept.Statistics as reflected in the machines used since its inception*, c.1968, see elsewhere in this catalog.

11. School of Computer Science and Statistics, *The Computer Laboratory, Trinity College Dublin. The evolution of Trinity College Dublin computing services as reflected in the long line of machines used by the Computer Lab since its inception*, c.1968, see elsewhere in this catalog.

12. Elizabeth Oldham, *History of Computing Education in Irish Schools*, video of presentation to Computers in Education Society of Ireland (CESI) Computer Science Symposium, September 2017, see elsewhere in this catalog.

Mr. John Moriarty, J.B.M. systems engineer (seated), who is instructing the Dublin University engineering staff on the use of this new electronic computer, the 1620. Standing are (from left), Dr. P. D. McCormack, lecturer in Electrical Engineering; Dr. John Byrne, I.C.I. research engineer; and **Dr. B. K. P. Scaife**, lecturer in Electronic Engineering.

Figure 1: Photo from Irish Times article of 15-Jun-1962 on IBM 1620, ten days after delivery, showing John Moriarty, Percy McCormack, John Byrne and Brendan Scaife
Photograph courtesy John Moriarty

John Moriarty became the first Director of the university's computing service, the Computer Laboratory, TCD
Percy McCormack left TCD to study medicine, went to the America, joined the U.S.Navy and retired eventually as a Surgeon Commander
John Byrne became the first Head of the Department of Computer Science, TCD
Brendan Scaife became a Professor (now Emeritus) of Electrical Engineering in TCD

CURRICULUM VITAE

J.G. Byrne

Date of Birth: 25th July, 1933.

Academic Qualifications

B.A.	1956	Trinity College, Dublin.
B.A.I.	1956	Trinity College, Dublin
		Alexander Prize for first place in
		Civil Engineering subjects.
D.I.C.	1958	Imperial College, London.
Ph.D.	1961	Trinity College, Dublin.
		Thesis: "Torsion of hollow beams"
M.A.	1961	Trinity College, Dublin.
F.T.C.D.	1969	Fellow of Trinity College, Dublin.

Professional Career

Jan. 1957/June 1957	Engineer with S. Willis, Consulting Engineer, Birmingham.
July 1957/Sept. 1957	Junior Engineer with Dublin Corporation.
Oct. 1957/June 1958	Student on Concrete Technology Course at Imperial College, London.
Sept. 1958/Dec. 1960	Research student.
Dec. 1960/Dec. 1973	I.C.I. Research Fellow.
Sept. 1963/Sept. 1965	Lecturer, Graduate School of Engineering) Studies.)
Sept. 1965/June 1967	Lecturer in Computer Science.) all
June 1967/Sept. 1973	Senior Lecturer in Computer Science.) at
	) Trinity
Oct. 1968/date	Head of Department of Computer Science) College
Oct. 1973/date	Professor of Computer Science) Dublin.

Membership of Professional Societies

Member, Institution of Engineers of Ireland (Chartered Engineer)

Fellow, Irish Computer Society

Member, British Computer Society

Member, Association for Computer Machinery (U.S.A.)

Affiliate, IEEE (New York)

Figure 2: Prof.J.G.Byrne's CV c.1975
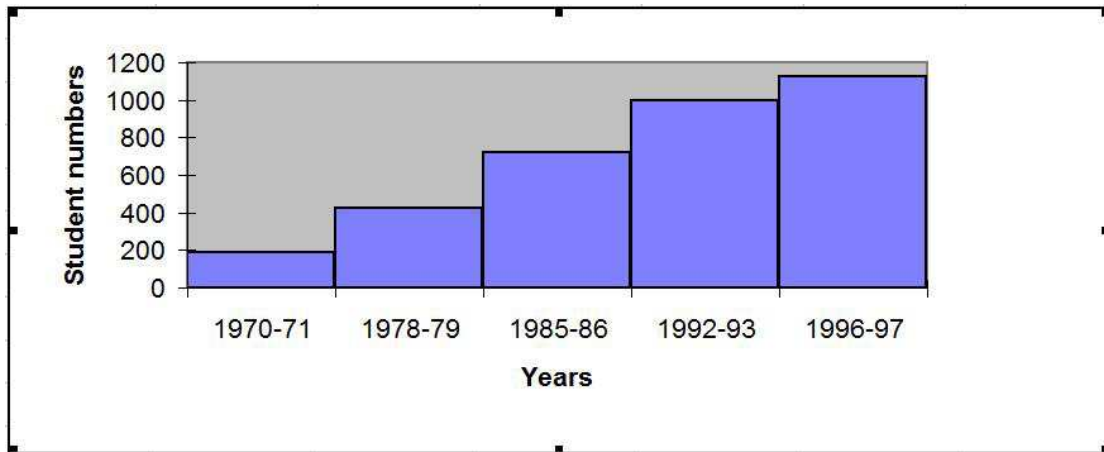*Note "Lecturer in Computer Science" from Sep-1965*

Figure 3: Growth in student numbers in the Dept.Computer Science, Trinity College Dublin
A significant event occurred in each of the years shown:
The first BAI "Computer Engineering" graduations occurred in 1970
The B.A.(Mod) degree in Computer Science began in 1979
The "Computer Science, Languages and Linguistics" degree began in 1985
The "Information Systems" degree began in 1992
The campaign to bring Computer Science together on the campus north-east corner began in 1997

Figure 4: Vivian Killeen and Neville Harris with TCD's IBM 1620 in 21 Lincoln Place
Photo courtesy John Moriarty

Figure 5: Prof.John Gabriel Byrne in his office in Pearse Street
Photograph courtesy Mike Nowlan

Figure 6: Helen Smith in Dept.Computer Science Reception in Pearse Street
Photograph courtesy Mike Nowlan

Figure 7: Dan McCarthy in his office in Pearse Street
Photograph courtesy Mike Nowlan

Figure 8: Mike Nowlan at the VAX 11/780 LA130 printer/terminal in Pearse Street
Photograph courtesy Mike Nowlan

Figure 9: Neville Harris in his office in Pearse Street
Neville later became Head of the Department of Computer Science
Photograph courtesy Mike Nowlan

Figure 10: Jeremy Jones supervising some of the first B.A.(Mod) Computer Science students
(class of 1982-1983) c.1981 in Pearse Street
Jeremy later became Head of the School of Computer Science and Statistics
Photograph courtesy Mike Nowlan

Figure 11: Mícheál Mac an Airchinnigh and [George Greenlee or <?> Flaherty?]
in the departmental Library in Pearse Street
Under the window are Lear Siegler ADM3A text-oriented visual display units (VDU)
To the left of the unused ADM3A is Robert Friel's A4 flat-bed pen-plotter
Michael Mac an Airchinnigh is using a Hazeltine 1500 VDU
On the right is a Diablo 1620 Hyterm daisy wheel tractor-feed typewriter/printer
(David Abrahamson was the first of many to use it to print Ph.D or M.Sc theses)
Beside the Diablo, barely visible, is an unidentified specialised printer or plotter
Device identification courtesy Bryan Alton
Photograph courtesy Mike Nowlan

Figure 12: Dept.Computer Science, c.1981, on the flat roof outside the staff coffee room in Pearse Street
Photograph courtesy Ann Gallagher
NB: the cable passing behind Neville Harris and Dave Vernon is almost certainly
original pre-standardisation 3Mbps coaxial CSMA-CD Ethernet cable

Rear Row: *Neville Harris, Dave Vernon, [Noreen ?], Ann Gallagher, <?>, Colleen Kitchen,*
    Alexis Donnelly, [Myles Cagney?], John Gallagher, <?>, Brian Coghlan
Middle Row: *Colin Manning, Tom Meleady, Eoin O'Camhaill, Rachel Noctor, Brendan Kiernan,*
    Helen Smith
Front Row: *Ala Al-Zobaidie, Tom Irwin, Robert Friel (RIP)*

Figure 13: Dept.Computer Science, c.1981, looking east on flat roof outside the staff coffee room in Pearse Street
Photograph courtesy Kevin Ryan

Rear Row: *Jeremy Jones, Robert Friel (RIP), Tom Meleady, Brendan Lynch*
Front Row: *Myles Cagney, Francis Neelamkavil, <? ?>, Ann Gallagher, Neville Harris, Kevin Ryan,*
                    Jane Grimson, <Tony Redmond?>, Prof.J.G.Byrne, Dan McCarthy, David Abrahamson
Crouching: *Alexis Donnelly*

Figure 14: One of the first B.A.(Mod) students (Niall Doherty) with a Rockwell AIM in Pearse Street labs
Photograph courtesy Mike Nowlan

Figure 15: Some of the first B.A.(Mod) Computer Science students, class of 1982-1983
Martine Murphy, Marie Buckley, Amanda Lee, Laura Dowling, [Bryan Alton (staff) or Seamus Kearney]
Photograph courtesy Mike Nowlan

Figure 17: Mary Murray in her office after the move to the O'Reilly Institute
Photograph courtesy Mary Murray

Figure 18: Sean Baker and Prof.J.G.Byrne in the O'Reilly Institute
Behind them are Dudley Dolan and Tony Redmond
Photograph courtesy Mary Murray

Figure 19: Neville Harris, Prof.J.G.Byrne and Francis Neelamkavil in the foyer of the O'Reilly Institute
Photograph courtesy Mary Murray

Figure 20: Tim O'Donoghue and Alan Mullally
Tim O'Donoghue was an external lecturer highly involved in the Systems Analysis Diploma course
Photograph courtesy Ann Gallagher

Figure 21: left: John Keogh and Tom Irwin, right: Hugh Gibbons
Photographs courtesy Ann Gallagher

Figure 22: left: Ann Gallagher, right: Mary Sharp
Photographs courtesy Ann Gallagher

Figure 23: <?>

Figure 24: <?>

Figure 25: <?>

Figure 26: <?>

Figure 27: ????

Figure 28: ????

Figure 70-Eng: Class Photograph, TCD Engineering School BAI Class of 1966-1970
This includes the first undergraduate TCD Computer Science class,
(the computing option started in Oct-1967, but was available to the intake of Oct-1966)
Photograph courtesy Paul O'Kane.
See elsewhere in this catalog for more detail

Figure 71-Eng: Class Photograph, TCD Engineering School BAI Class of 1970-1971
Photograph courtesy Kevin Ryan
See elsewhere in this catalog for more detail

Figure 72-Eng: Class Photograph, TCD Engineering School BAI Class of 1971-1972
Photograph courtesy Engineering School, Trinity College Dublin
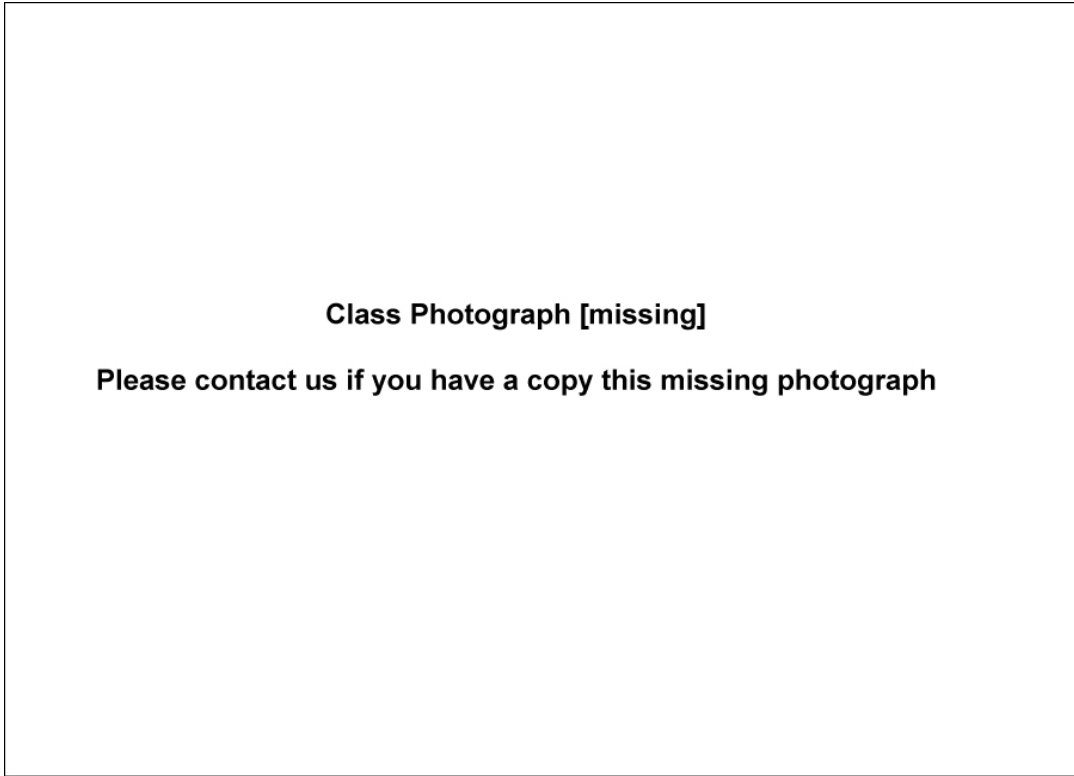*See elsewhere in this catalog for more detail*

Figure 73-Eng: Class Photograph, TCD Engineering School BAI Class of 1972-1973
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 74-Eng: Class Photograph, TCD Engineering School BAI Class of 1973-1974
Photograph courtesy Engineering School, Trinity College Dublin
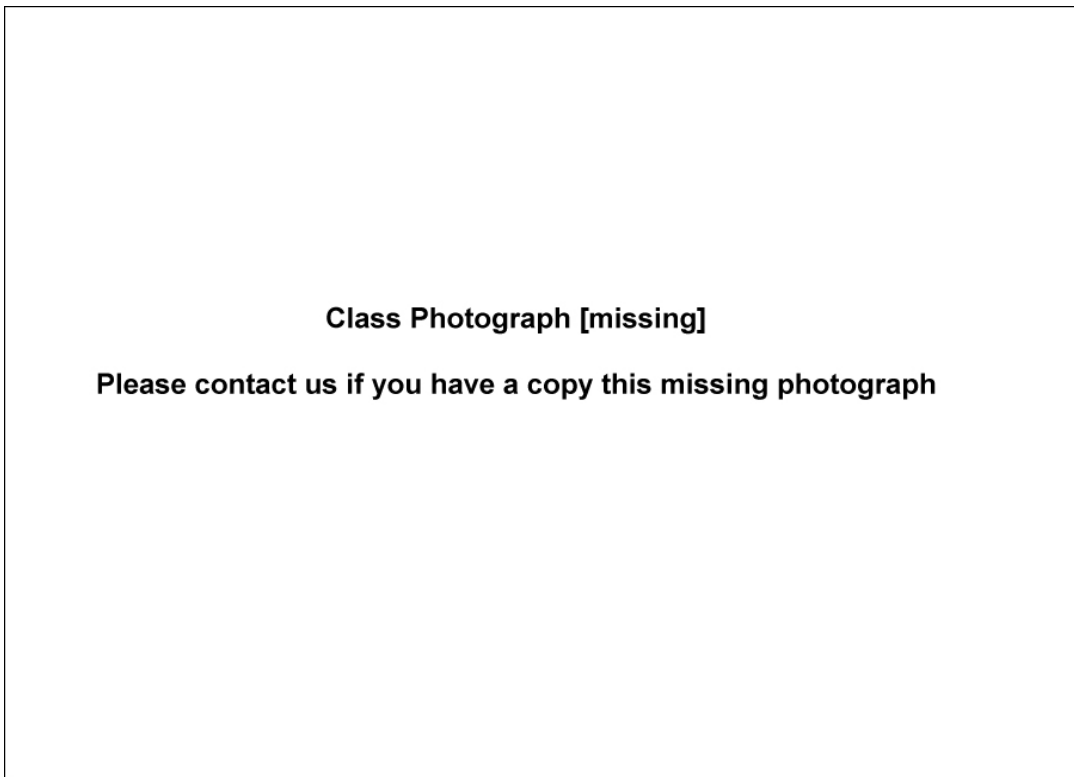*See elsewhere in this catalog for more detail*

Figure 75-Eng: Class Photograph, TCD Engineering School BAI Class of 1974-1975
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 76-Eng: Class Photograph, TCD Engineering School BAI Class of 1975-1976
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 77-Eng: Class Photograph, TCD Engineering School BAI Class of 1976-1977
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 78-Eng: Class Photograph, TCD Engineering School BAI Class of 1977-1978
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 79-Eng: Class Photograph, TCD Engineering School BAI Class of 1978-1979
Photograph courtesy Engineering School, Trinity College Dublin
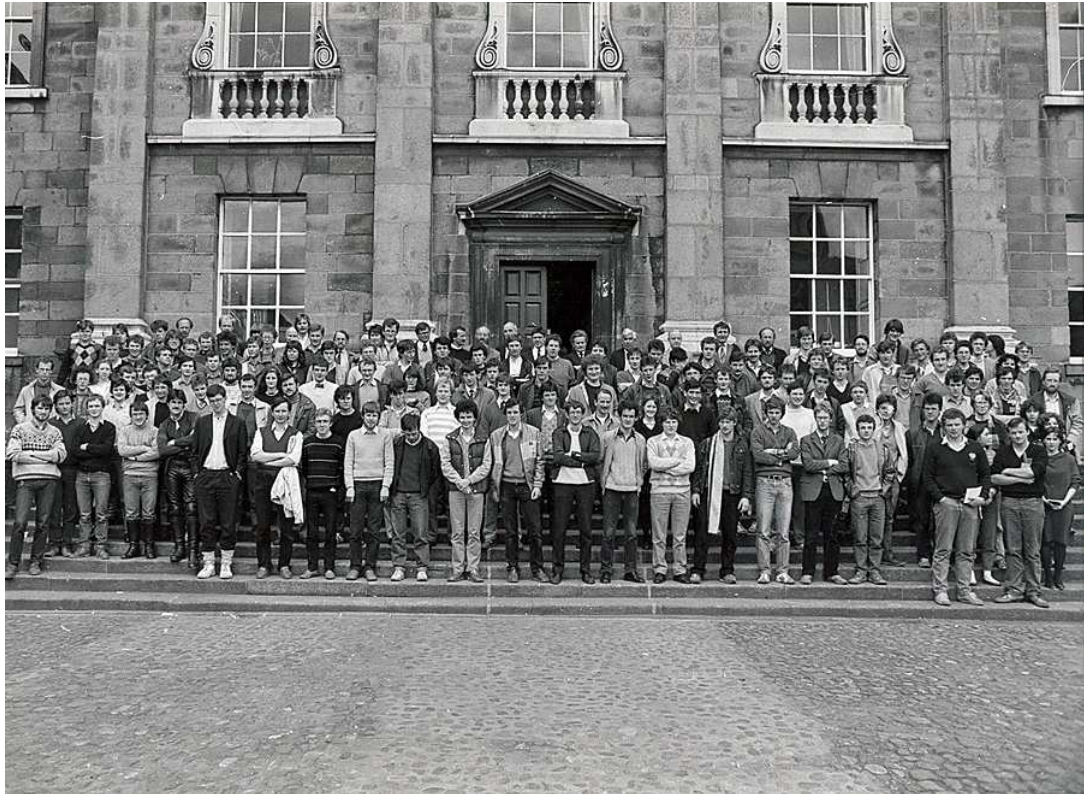*See elsewhere in this catalog for more detail*

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 80-Eng: Class Photograph, TCD Engineering School BAI Class of 1979-1980
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 81-Eng: Class Photograph, TCD Engineering School BAI Class of 1980-1981
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 82-Eng: Class Photograph, TCD Engineering School BAI Class of 1981-1982
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 83-Eng: Class Photograph, TCD Engineering School BAI Class of 1982-1983
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 83a-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1982-1983
Photo courtesy Tom Kearney
(this is the first B.A.(Mod) Computer Science class)
See elsewhere in this catalog for more detail

Figure 83b-BAMod: Cathy Stack, Eamonn Gahan, Carol Whittaker (missing from Fig.83a)
Also missing: Pat McCarroll
Photo courtesy Carol Baker nee Whittaker

Figure 84-Eng: Class Photograph, TCD Engineering School BAI Class of 1983-1984
Photograph courtesy Engineering School, Trinity College Dublin
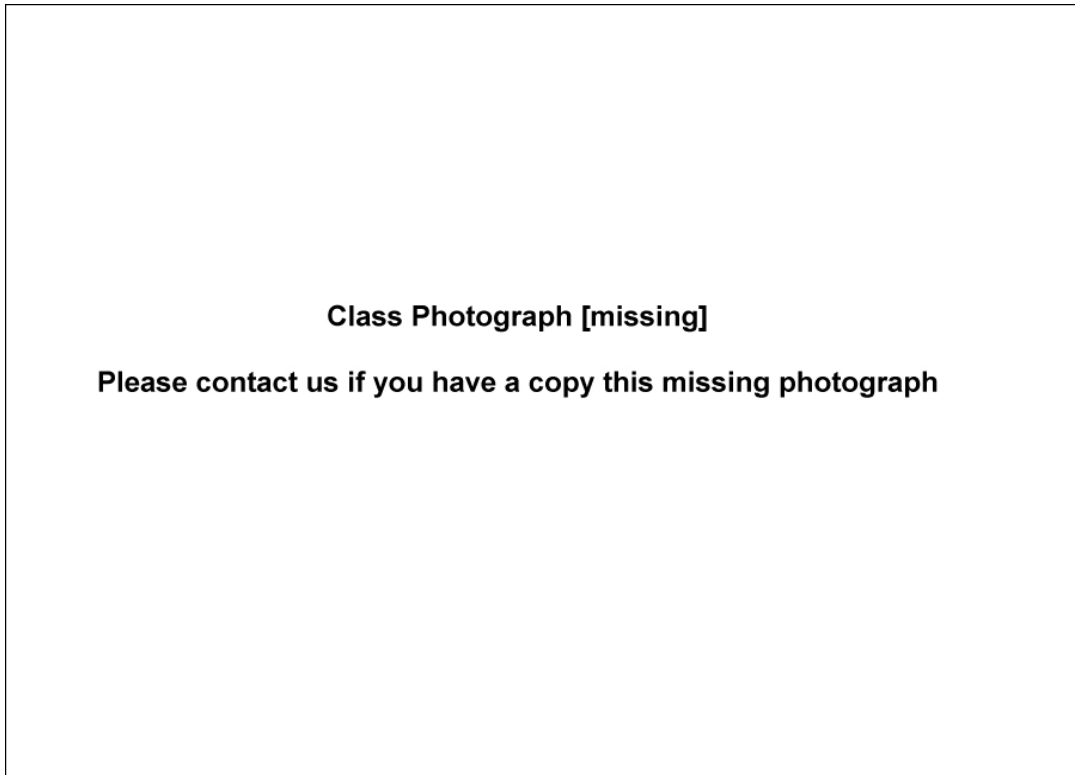*See elsewhere in this catalog for more detail*

Class Photograph [missing]

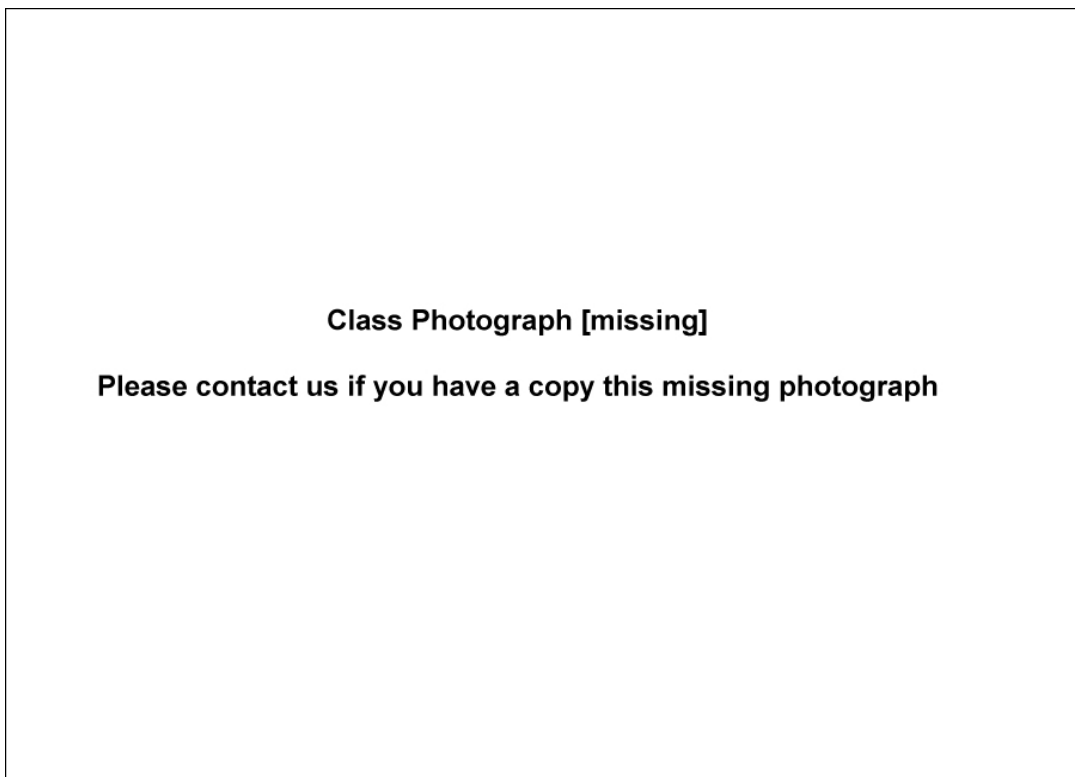**Please contact us if you have a copy this missing photograph**

Figure 84-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1983-1984
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 85-Eng: Class Photograph, TCD Engineering School BAI Class of 1984-1985
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 85-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1984-1985
Photograph courtesy Dept.Computer Science, Trinity College Dublin
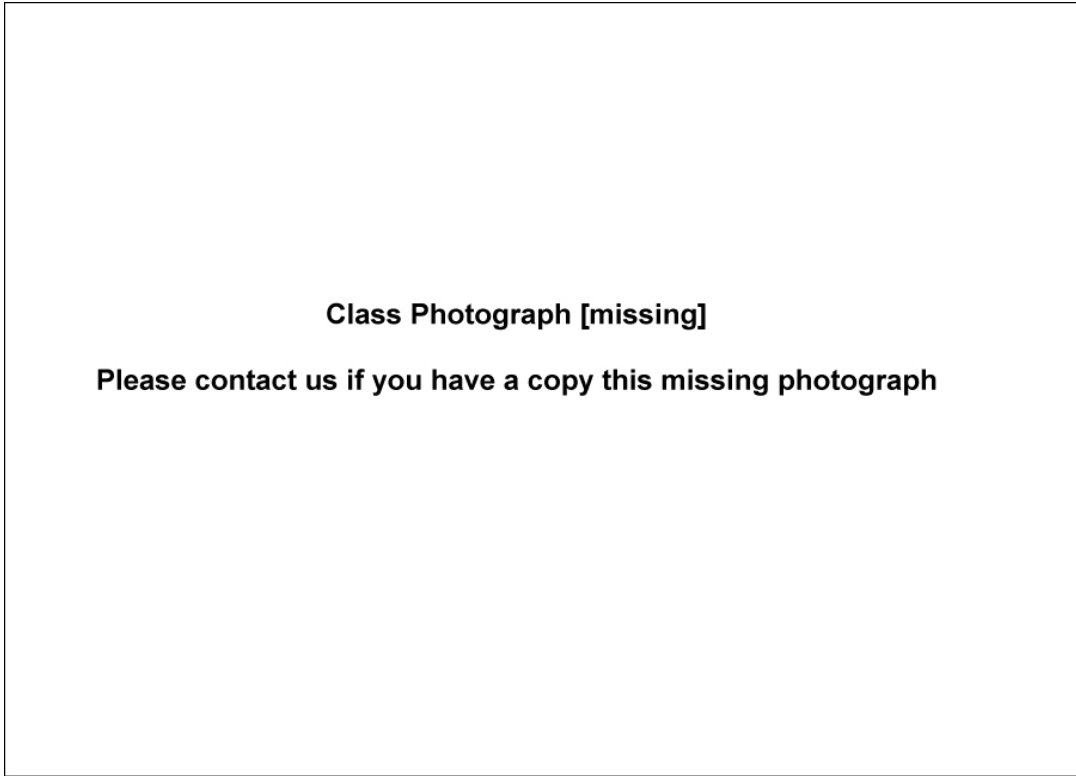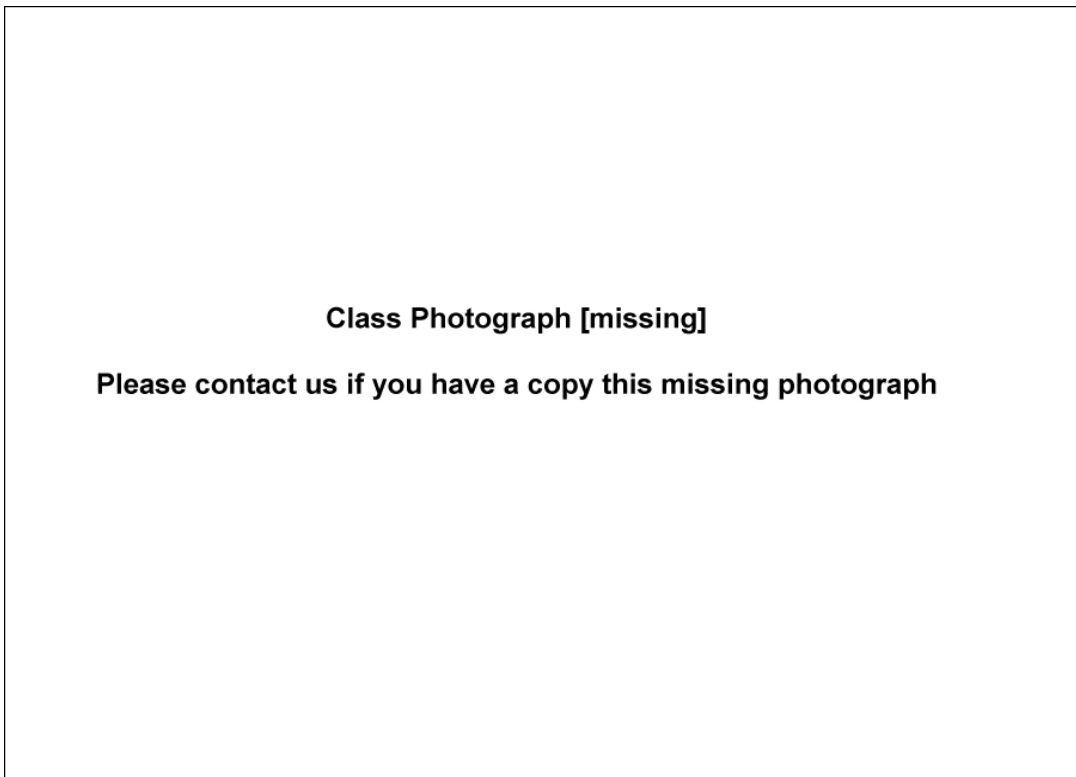*See elsewhere in this catalog for more detail*

Figure 86-Eng: Class Photograph, TCD Engineering School BAI Class of 1985-1986
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

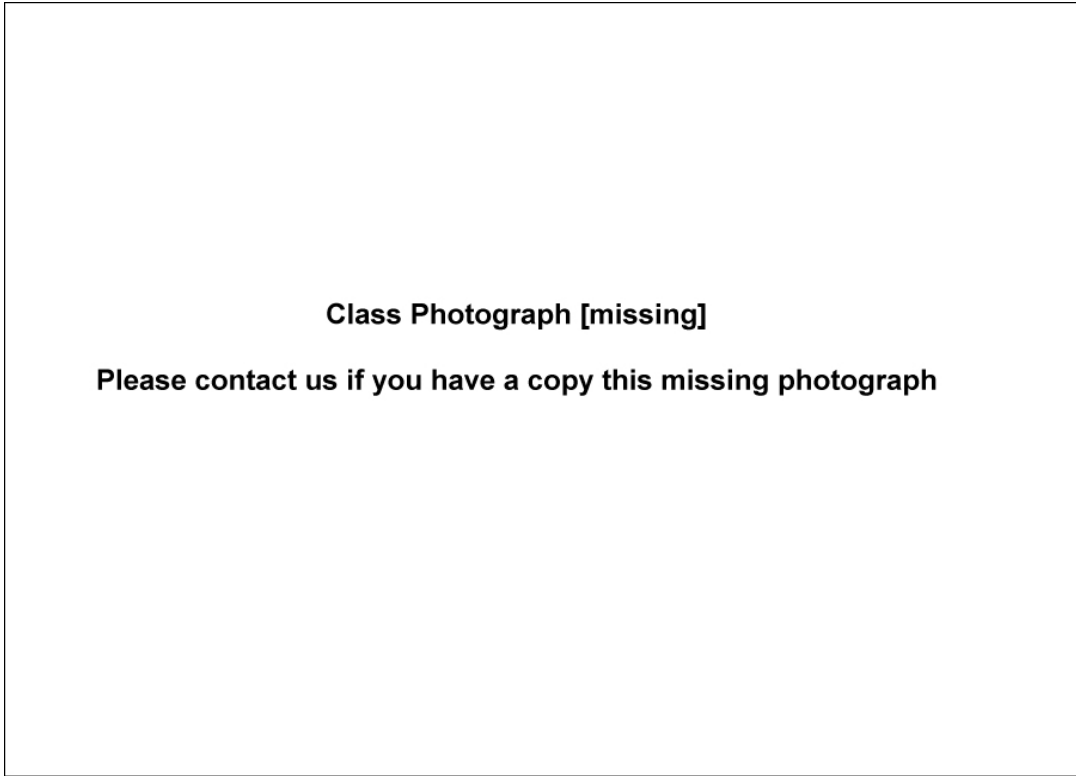**Please contact us if you have a copy this missing photograph**

Figure 86-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1985-1986
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 90x: Unidentified Class Photograph
Photograph courtesy Jean Maypother

Class Photograph [missing]

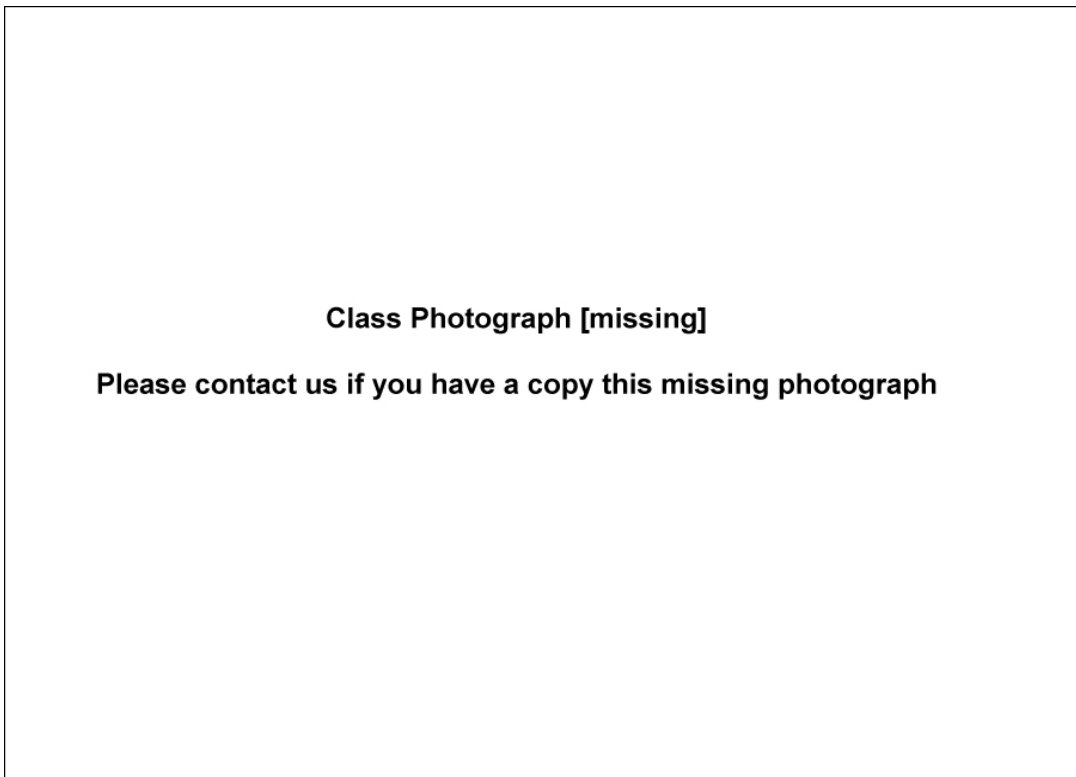Please contact us if you have a copy this missing photograph

Figure 87-Eng: Class Photograph, TCD Engineering School BAI Class of 1986-1987
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 87-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1986-1987
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 88-Eng: Class Photograph, TCD Engineering School BAI Class of 1987-1987
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Figure 88-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1987-1988
Photograph courtesy Dept.Computer Science, Trinity College Dublin
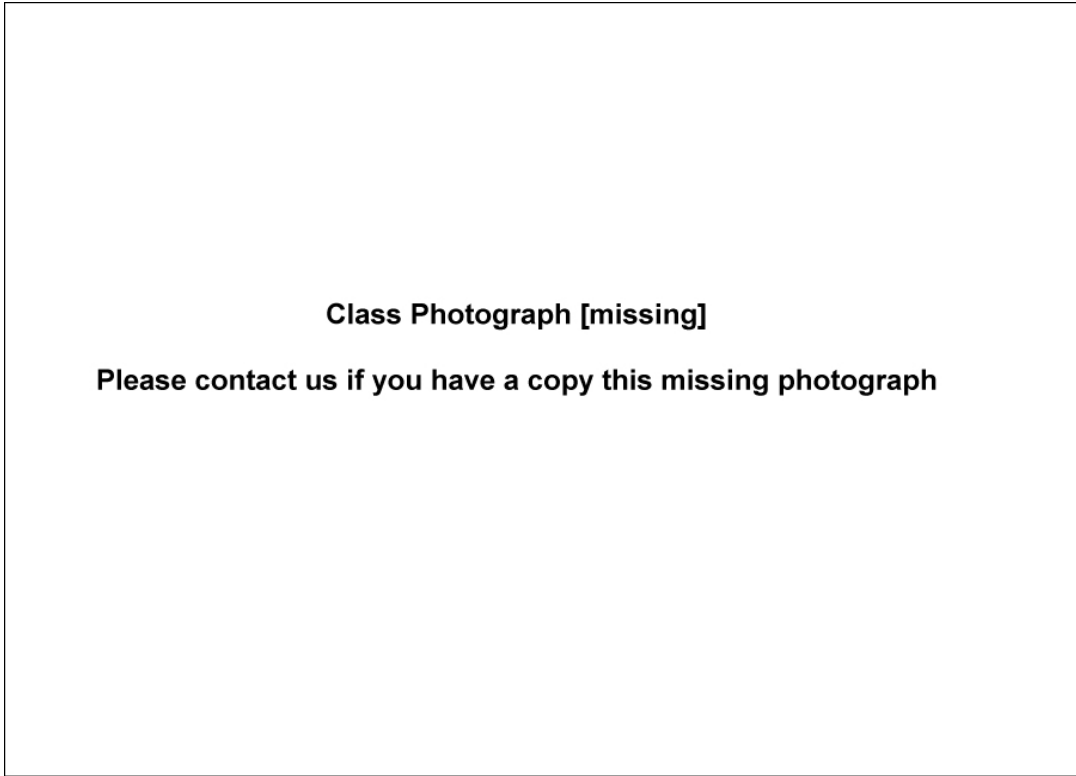*See elsewhere in this catalog for more detail*

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 89-Eng: Class Photograph, TCD Engineering School BAI Class of 1988-1989
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

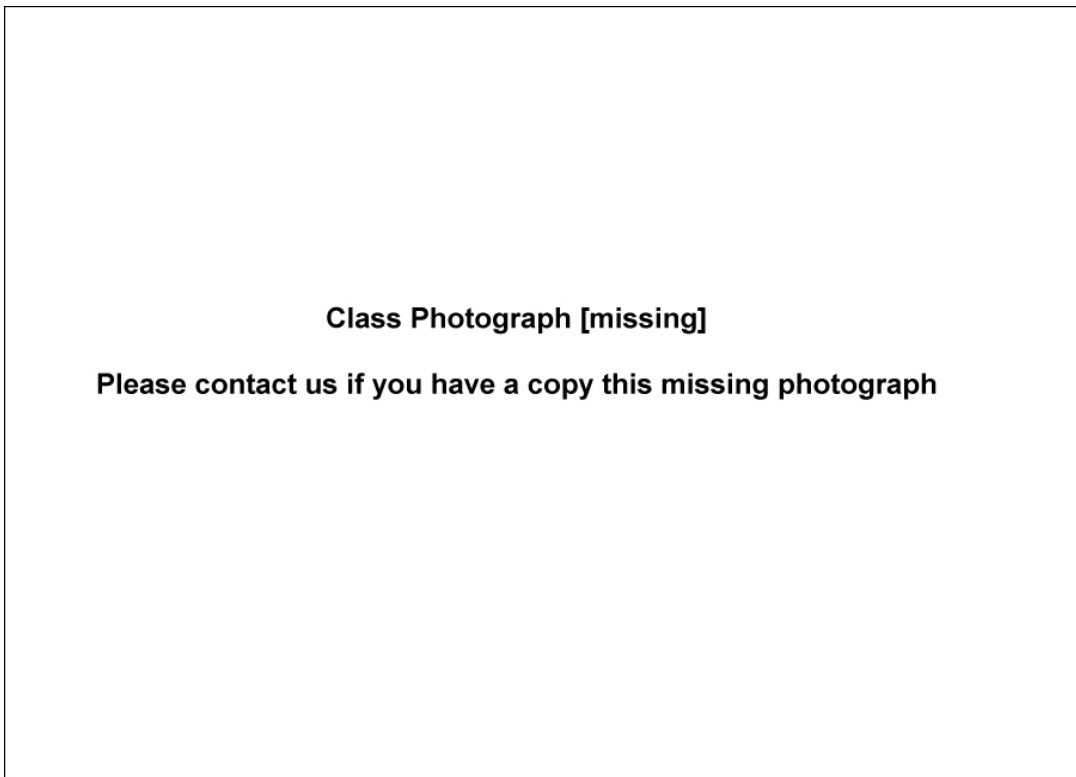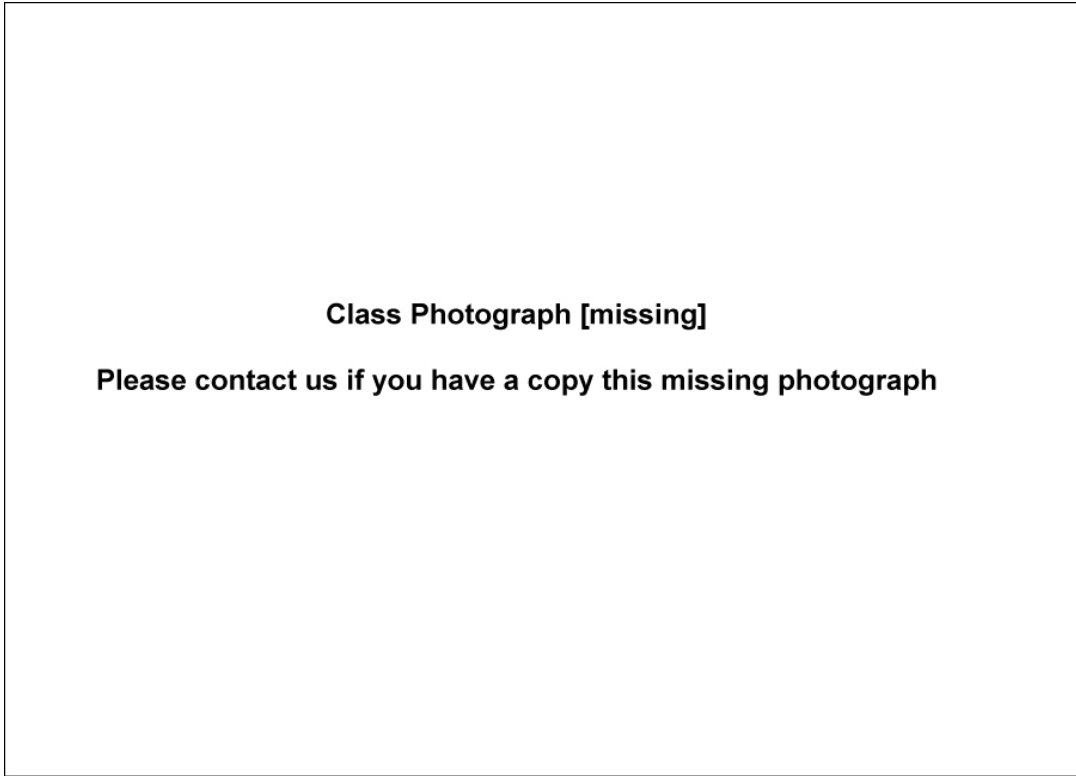Please contact us if you have a copy this missing photograph

Figure 89-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1988-1989
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 90-Eng: Class Photograph, TCD Engineering School BAI Class of 1989-1990
Photograph courtesy Engineering School, Trinity College Dublin
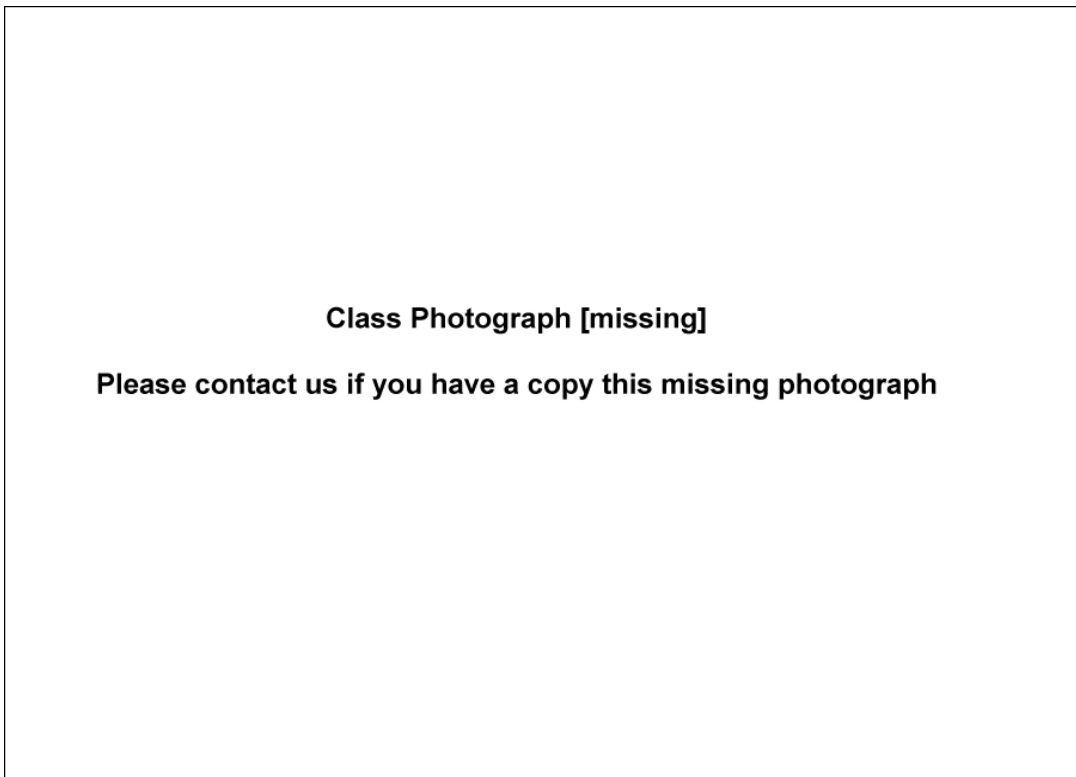*See elsewhere in this catalog for more detail*

Class Photograph [missing]

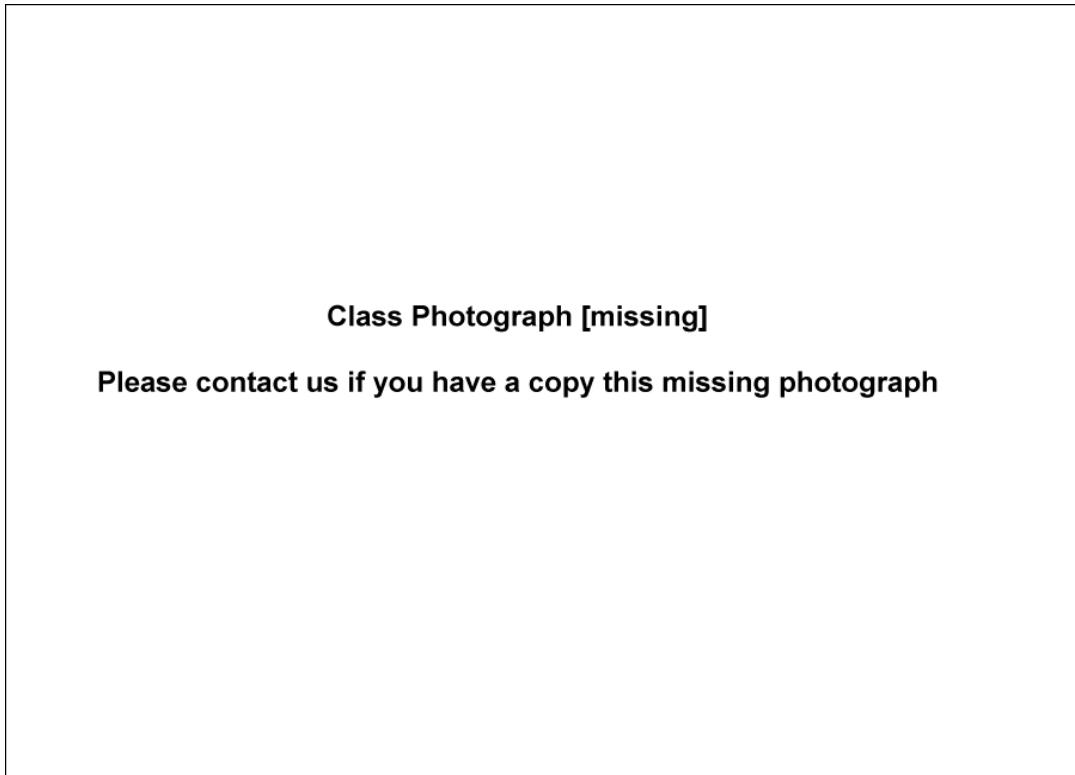Please contact us if you have a copy this missing photograph

Figure 90-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1989-1990
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

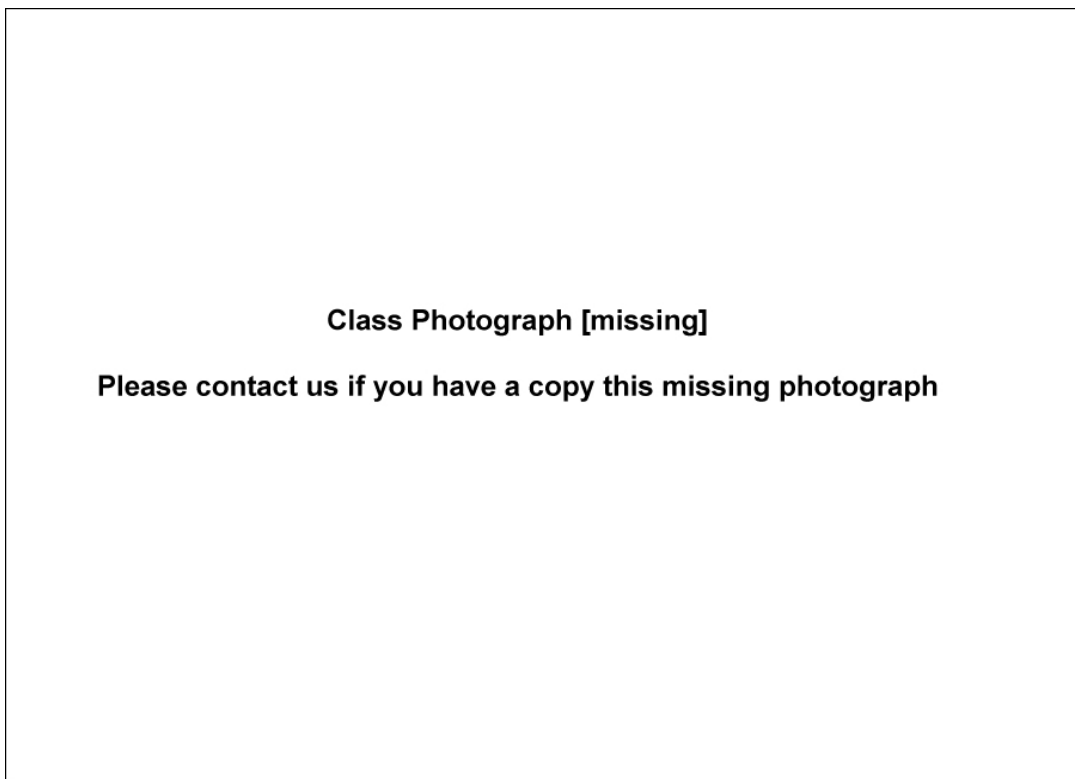**Please contact us if you have a copy this missing photograph**

Figure 91-Eng: Class Photograph, TCD Engineering School BAI Class of 1990-1991
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

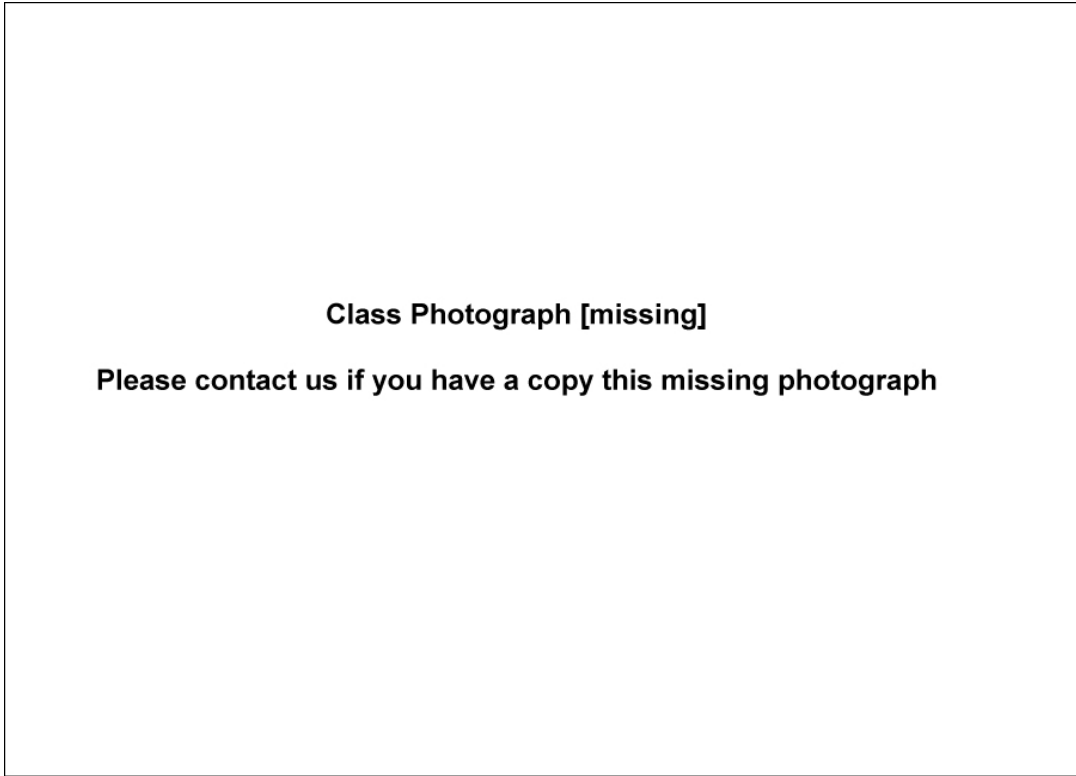**Please contact us if you have a copy this missing photograph**

Figure 91-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1990-1991
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

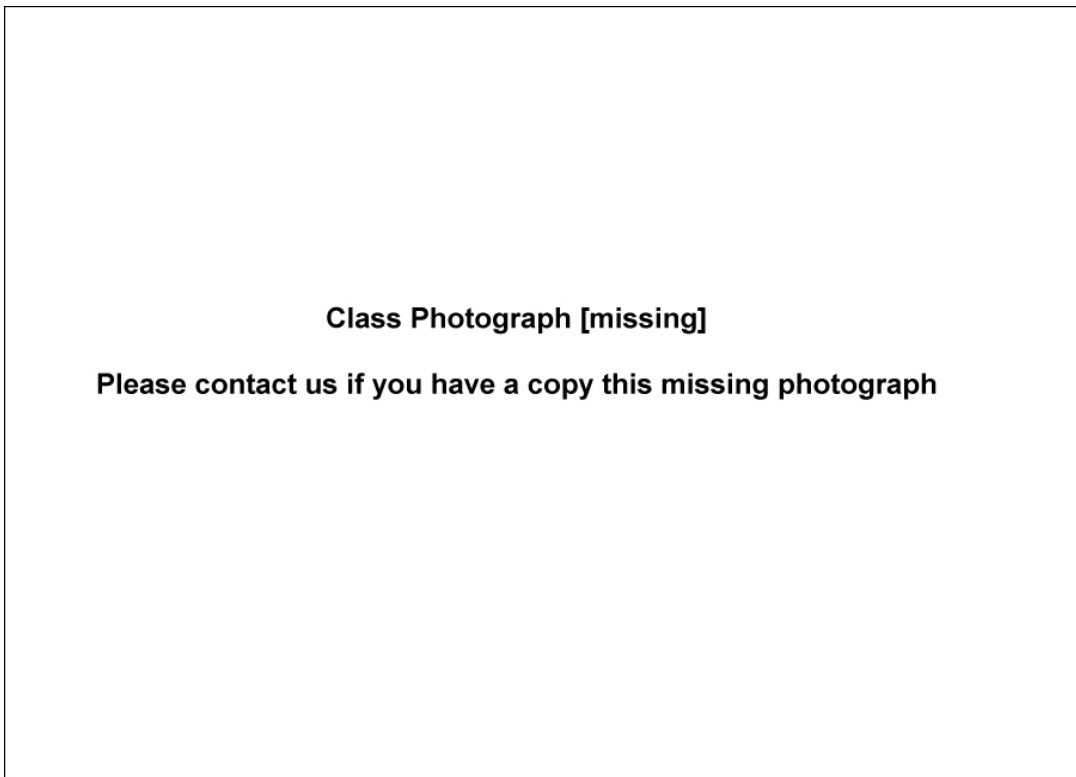**Please contact us if you have a copy this missing photograph**

Figure 92-Eng: Class Photograph, TCD Engineering School BAI Class of 1991-1992
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

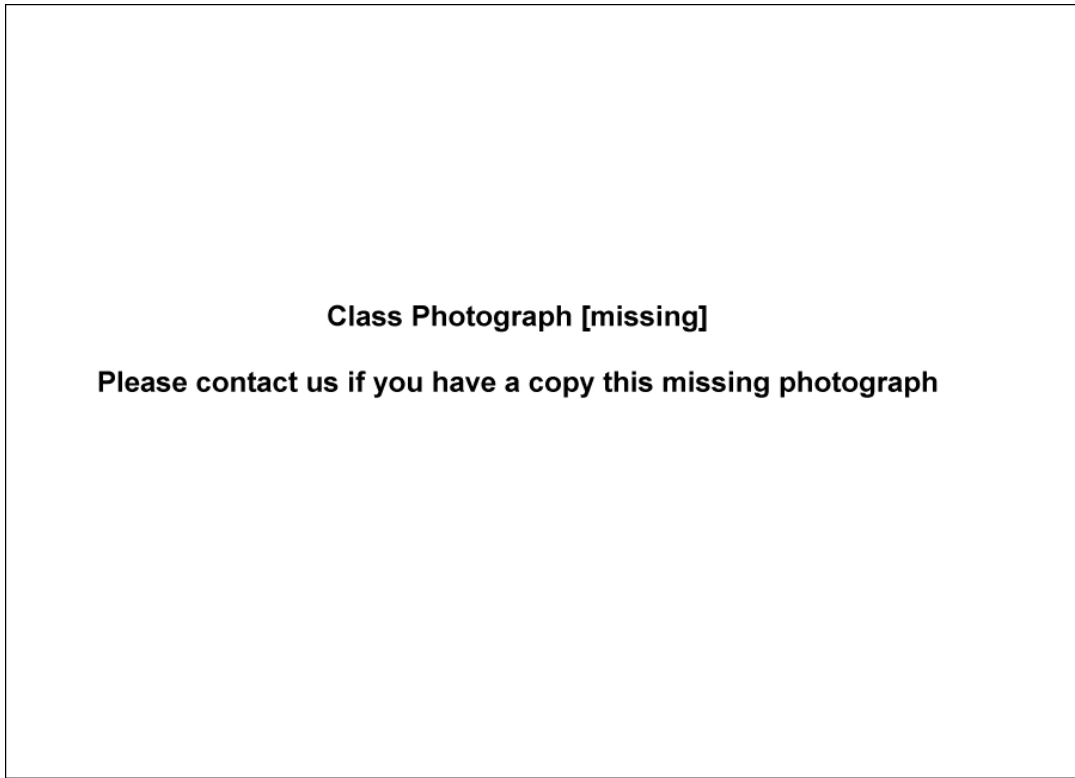**Please contact us if you have a copy this missing photograph**

Figure 92-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1991-1992
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

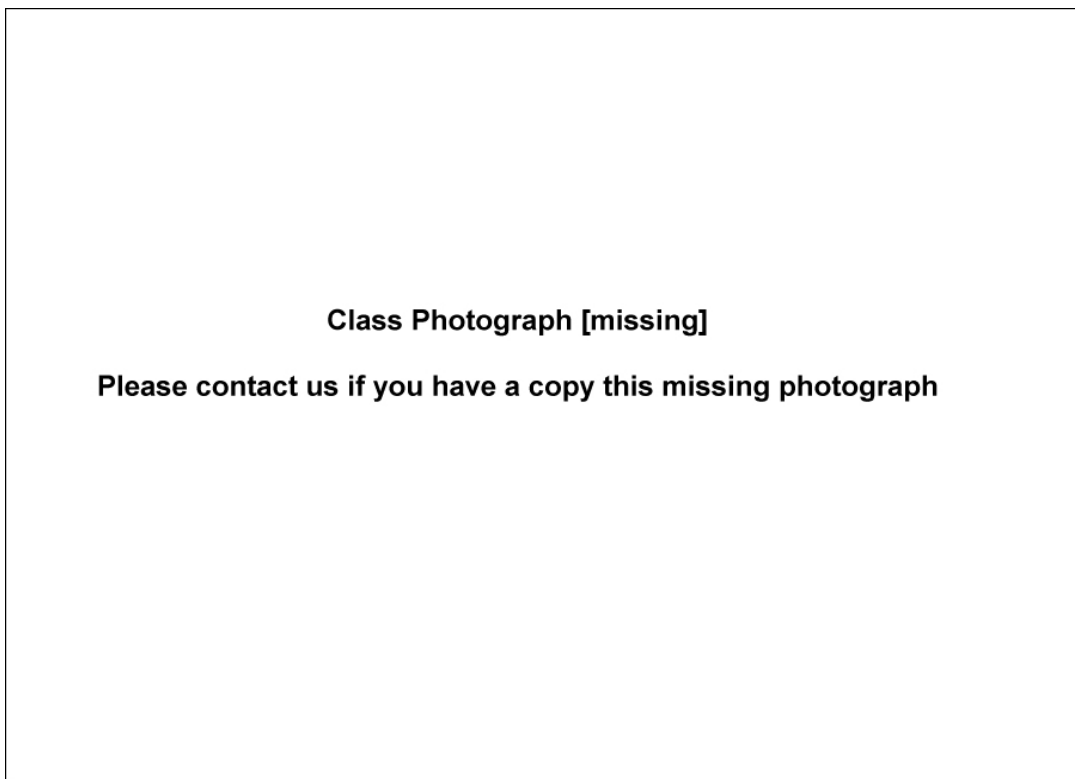**Please contact us if you have a copy this missing photograph**

Figure 93-Eng: Class Photograph, TCD Engineering School BAI Class of 1992-1993
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

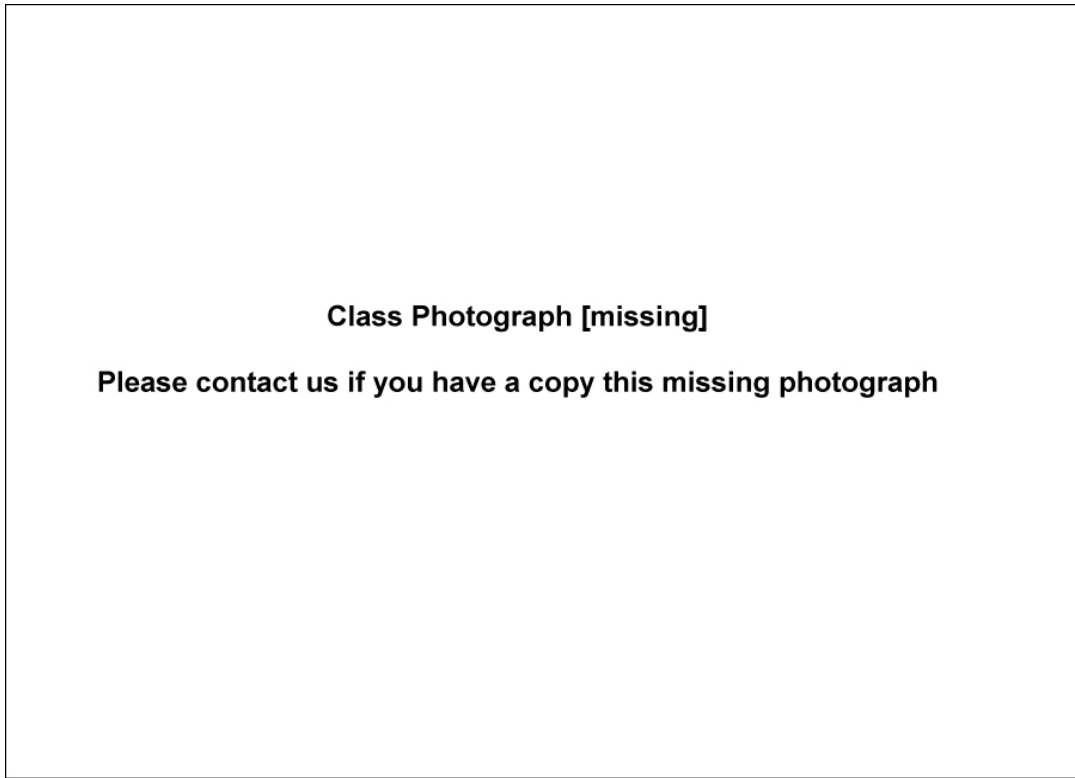**Please contact us if you have a copy this missing photograph**

Figure 93-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1992-1993
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

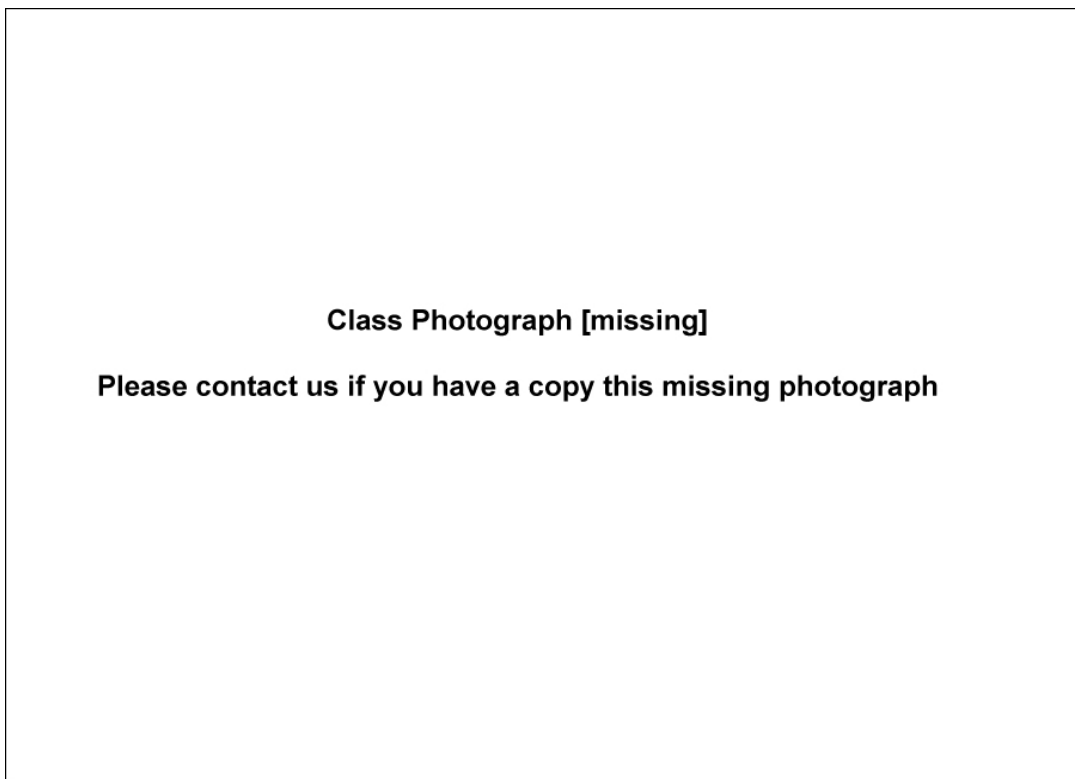**Please contact us if you have a copy this missing photograph**

Figure 94-Eng: Class Photograph, TCD Engineering School BAI Class of 1993-1994
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

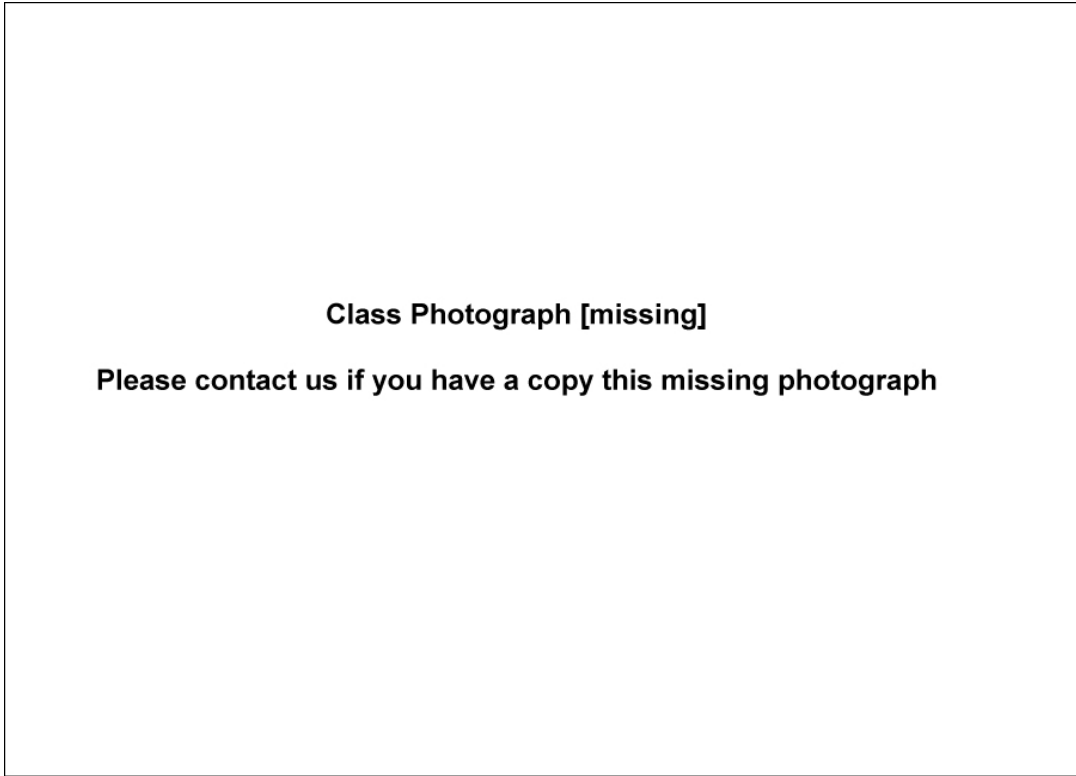**Please contact us if you have a copy this missing photograph**

Figure 94-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1993-1994
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 95-Eng: Class Photograph, TCD Engineering School BAI Class of 1994-1995
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

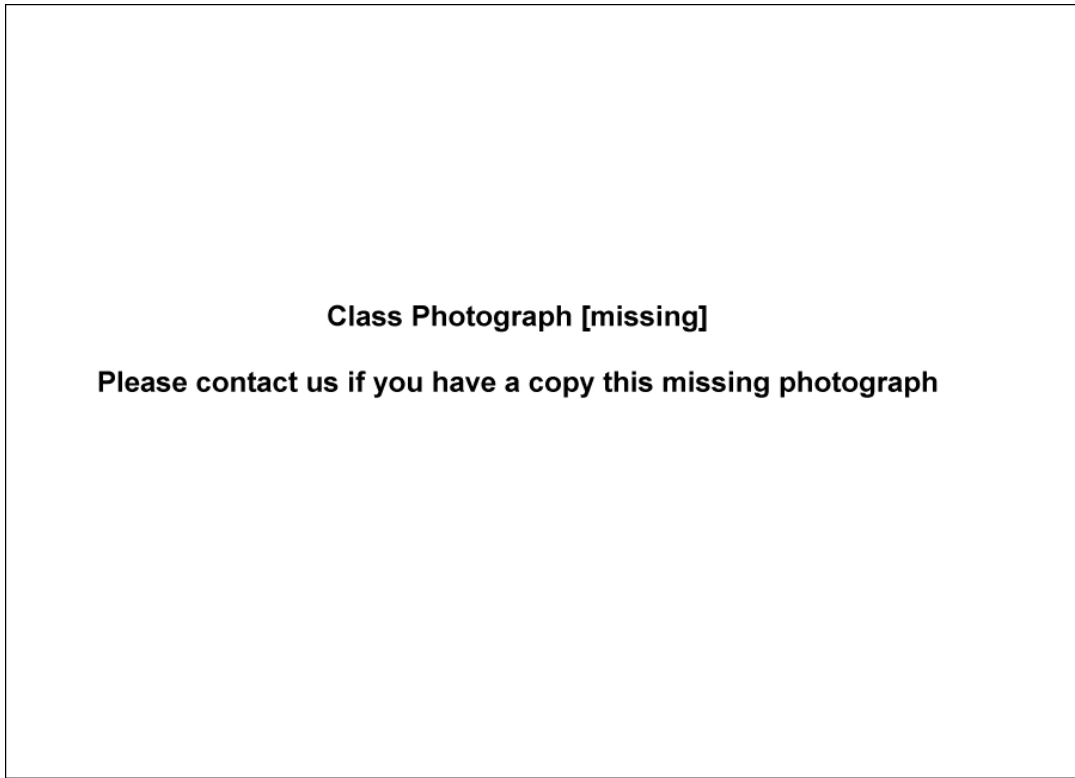Please contact us if you have a copy this missing photograph

Figure 95-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1994-1995
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

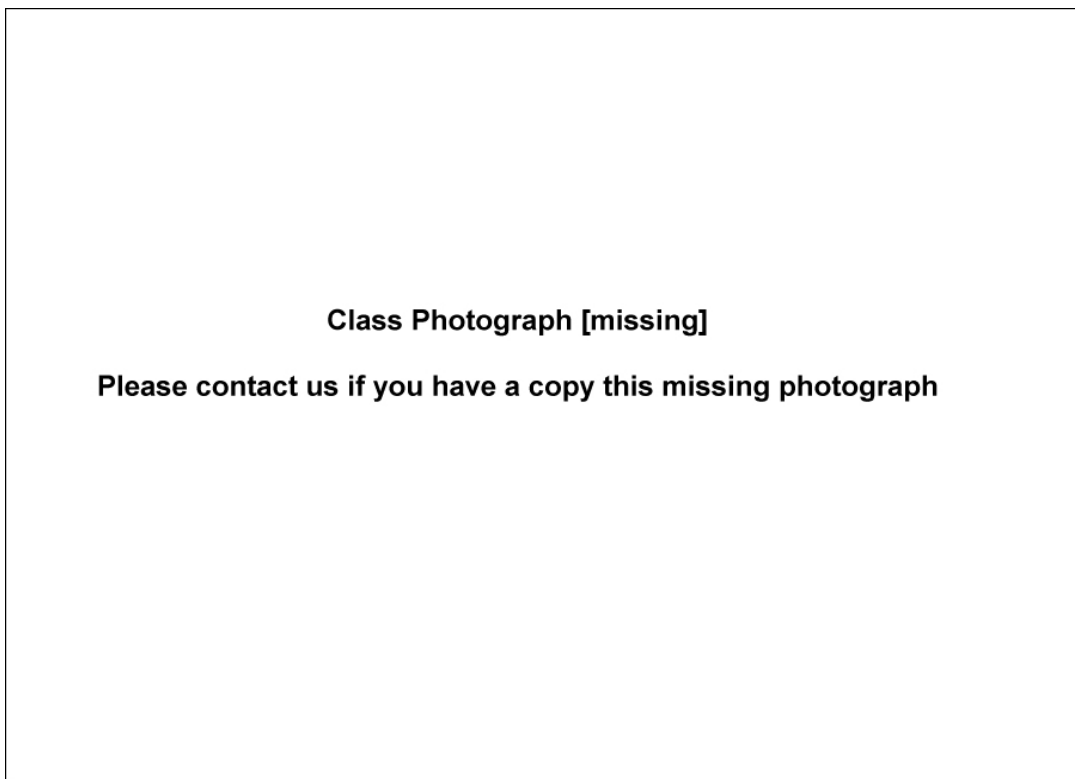**Please contact us if you have a copy this missing photograph**

Figure 96-Eng: Class Photograph, TCD Engineering School BAI Class of 1995-1996
Photograph courtesy Engineering School, Trinity College Dublin
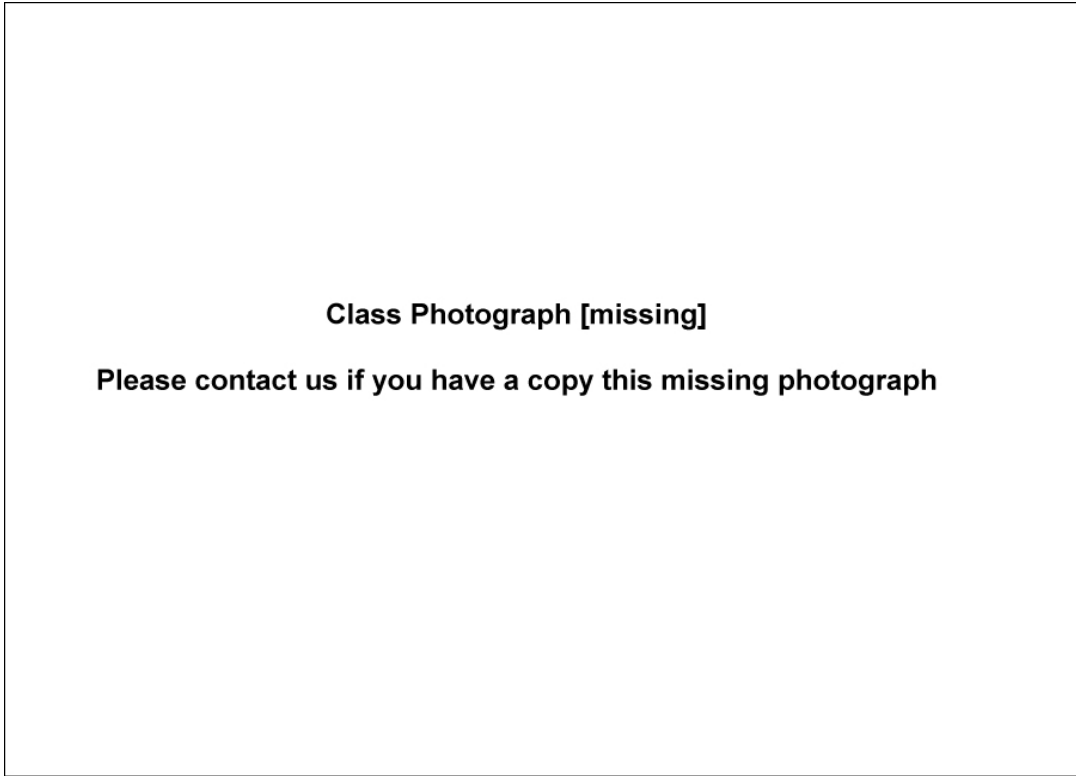*See elsewhere in this catalog for more detail*

Figure 96-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1995-1996
Photograph courtesy Jim Dowling
See elsewhere in this catalog for more detail

Class Photograph [missing]

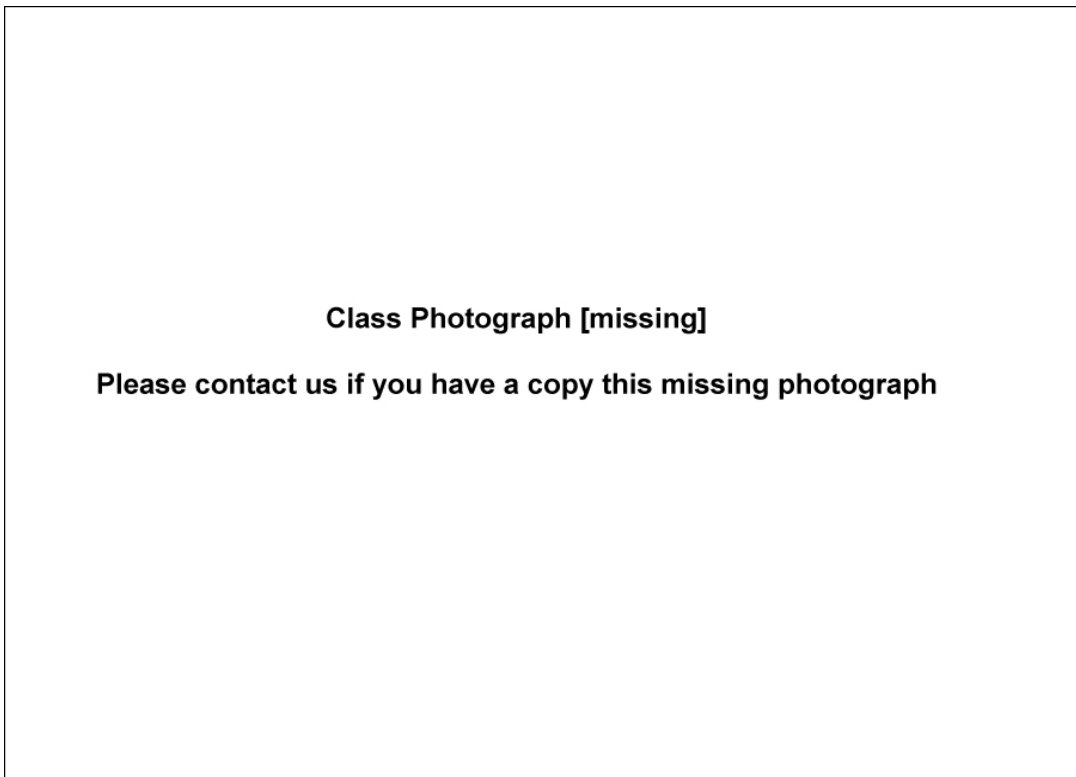Please contact us if you have a copy this missing photograph

Figure 97-Eng: Class Photograph, TCD Engineering School BAI Class of 1996-1997
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

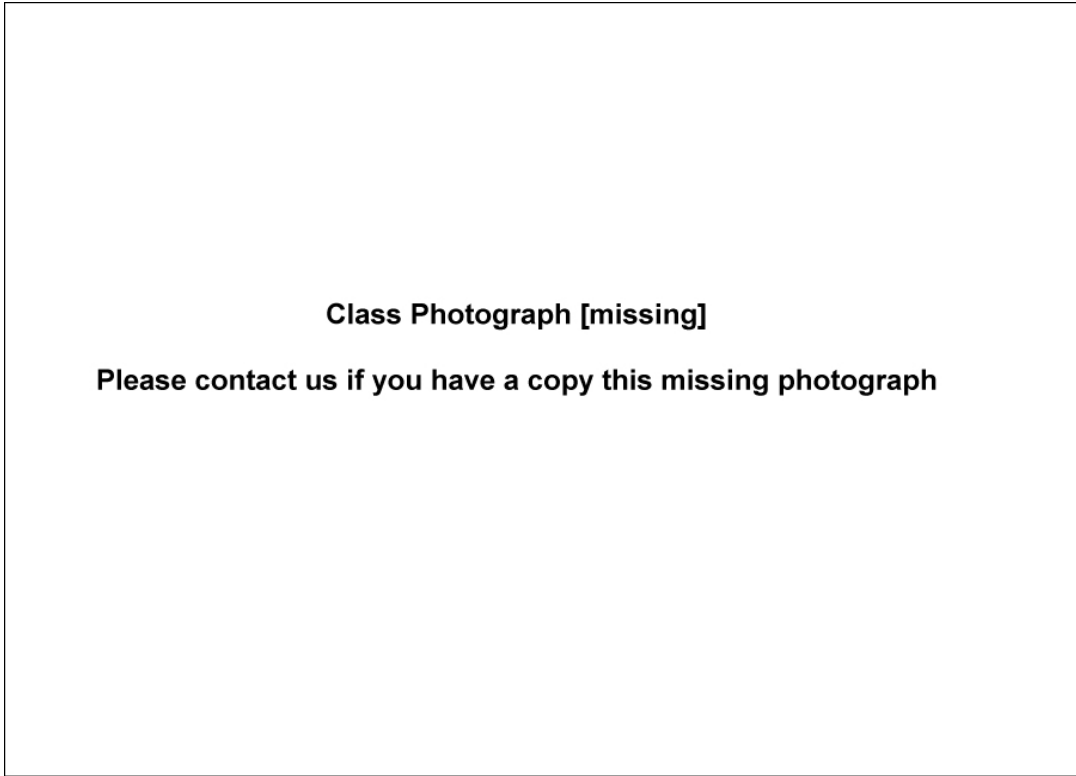Please contact us if you have a copy this missing photograph

Figure 97-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1996-1997
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

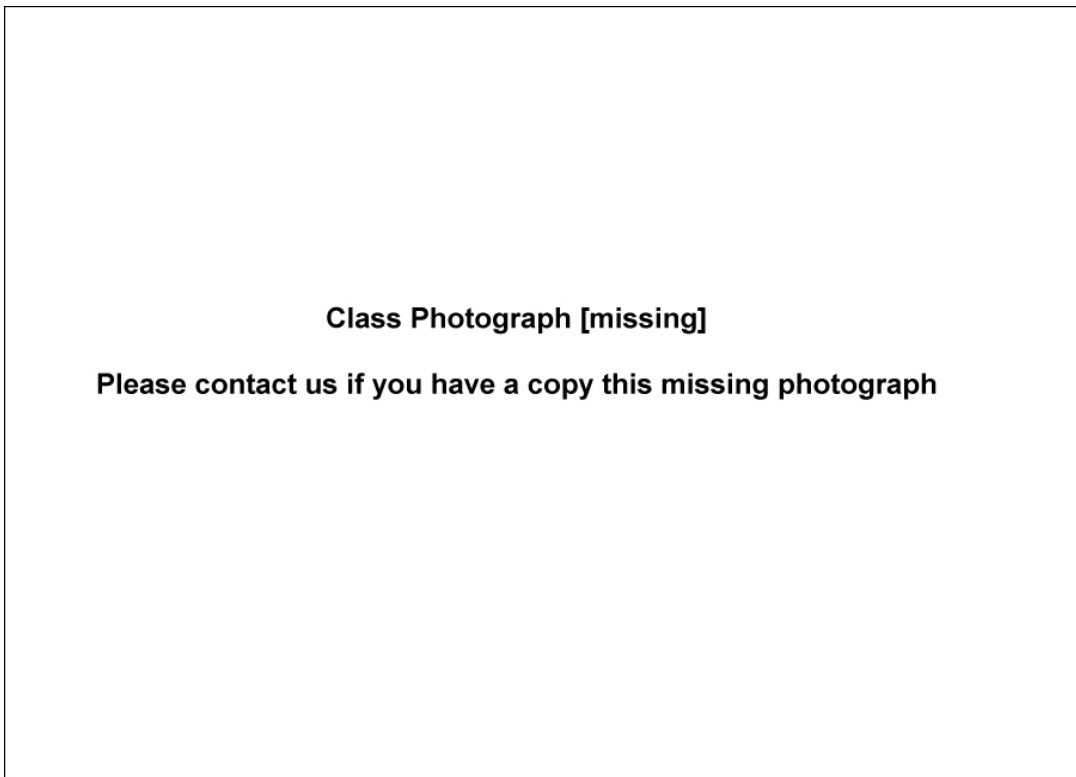**Please contact us if you have a copy this missing photograph**

Figure 98-Eng: Class Photograph, TCD Engineering School BAI Class of 1997-1998
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 98-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1997-1998
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 99-Eng: Class Photograph, TCD Engineering School BAI Class of 1998-1999
Photograph courtesy Engineering School, Trinity College Dublin
See elsewhere in this catalog for more detail

Class Photograph [missing]

Please contact us if you have a copy this missing photograph

Figure 99-BAMod: Class Photograph, B.A.(Mod) Computer Science Class of 1998-1999
Photograph courtesy Dept.Computer Science, Trinity College Dublin
See elsewhere in this catalog for more detail