ACS Code of Ethics Project   **Case Studies and their clauses in the Code**

This table shows a range of case studies with references to relevant clauses of the **ACS Code of Ethics**. The Code consists of a series of clauses which gradually expand on aspects of ethical behaviour relevant to professional people in the ICT industry. Clauses 4.3.1 to 4.3.6 describe the six **Values and Ideals**, summarised as: Priorities; Competence; Honesty; Social Implications; Professional Development; and Information Technology Profession.

Clauses 4.5.1 through to 4.10. 9 cover the **Standards of Conduct**, which provide a series of non-exhaustive standards explaining how the Code applies to a member's professional work, related to each of the six Values and Ideals.

Case No.	Summary of case	ACS Code of Ethics 4.3 Values and Ideals	ACS Code of Ethics Standards of Conduct
1 [1]	Jean, a statistical database programmer, is trying to write a large statistical program needed by her company. Programmers in this company are encouraged to write about their work and to publish their algorithms in professional journals. After months of tedious programming, Jean has found herself stuck on several parts of the program. Her manager, not recognising the complexity of the problem, wants the job completed within the next few days. Not knowing how to solve the problems, Jean remembers that a co-worker had given her source listings from his current work and from an early version of a commercial software package developed at another company. On studying these programs, she sees two areas of code which could be directly incorporated into her own program. She uses segments of code from both her co-worker and the commercial software, but does not tell anyone or mention it in the documentation. She completes the project and turns it in a day ahead of time.	4.3.1 Priorities 4.3.2 Competence 4.3.3 Honesty	4.5.3 I must respect the proprietary nature of the information of others. 4.6.4 I must respect and protect my clients' and employers' proprietary interests.4.6.4 4.7.2 I must not misrepresent my skills or knowledge. 4.7.6 I must give credit for work done by others where credit is due.

2 [1]	Three years ago Diane started her own consulting business. She has been so successful that she now has several people working for her and many clients. Their consulting work included advising on how to set up corporate intranets, designing database management systems, and advising about security. Presently she is designing a database management system for the personnel office of a medium-sized company. Diane has involved the client in the design process, informing the CEO, the director of computing, and the director of personnel about the progress of the system. It is now time to make decisions about the kind and degree of security to build into the system. Diane has described several options to the client. Because the system is going to cost more than they planned, the client has decided to opt for a less secure system. She believes the information they will be storing is extremely sensitive. It will include performance evaluations, medical records for filing insurance claims, salaries, and so forth. With weak security, employees working on client machines may be able to figure out ways to get access to this data, not to mention the possibility of on-line access from hackers. Diane feels strongly that the system should be much more secure. She has tried to explain the risks, but the CEO, director of computing and director of personnel all agree that less security will do. What should she do? Should she refuse to build the system as they request?	4.3.1 Priorities 4.3.2 Competence 4.3.4 Social Implications	4.5.4 I must endeavour to preserve the confidentiality of the information of others. 4.6.1 I must endeavour to provide products and services which match the operational and financial needs of my clients and employers. 4.6.6 I must advise my clients and employers when I believe a proposed project is not in their best interest. 4.8.2 I must consider and respect people's privacy which might be affected by my work.

3 [1]	Max works in a large state department of alcoholism and drug abuse. The agency administers programs for individuals with alcohol and drug problems, and maintains a huge database of information on the clients who use their services. Some of the data files contain the names and current addresses of clients.	4.3.1 Priorities	4.5.2	I must endeavour to preserve the integrity and security of the information of others.
			4.5.4	I must endeavour to preserve the confidentiality of the information of others.
	Max has been asked to take a look at the track records of the treatment programs. He is to put together a report that contains the number of clients seen in each program each month for the past five years, length of each client's treatment, number of clients who return after completion of a program, criminal histories of clients, and so on. In order to put together this report, Max has been given access to all files in the agency's mainframe computer. After assembling the data into a file that includes the clients names, he downloads it to the computer in his office. Under pressure to get the report finished by the deadline, Max decides he will have to work at home over the weekend in order to finish on time. He burns the information onto a CD and takes it home. After finishing the report he leaves the CD at home and forgets about it.	4.3.4 Social Implications	4.8.2	I must consider and respect people's privacy which might be affected by my work.

| 4 [1] | A computer company is writing the first stage of a more efficient accounting system that will be used by the government. This system will save tax payers a considerable amount of money every year. A computer professional, who is asked to design the accounting system, assigns different parts of the system to her staff. One person is responsible for developing the reports; another is responsible for the internal processing; and a third for the user interface. The manager is shown the system and agrees that it can do everything in the requirements. The system is installed, but the staff finds the interface so difficult to use that their complaints are heard by upper level management. Because of these complaints, upper-level management will not invest any more money in the development of the new accounting system and they go back to their original, more expensive system. | 4.3.2 Competence

4.3.3 Honesty

4.3.6 Information Technology Profession | 4.6.1 I must endeavour to provide products and services which match the operational and financial needs of my clients and employers.

4.6.2 I must give value for money in the services and products I supply.

4.6.3 I must make myself aware of relevant standards, and act accordingly.

4.7.2 I must not misrepresent my skills or knowledge

4.10.1 I must respect, and seek when necessary, the professional opinions of colleagues in their areas of competence. |
| 5 [1] | In determining requirements for an information system to be used in an employment agency, the client explains that, when displaying applicants whose qualifications appear to match those required for a particular job, the names of white applicants are to be displayed ahead of those of non-white applicants, and the names of male applicants are to be displayed ahead of those of female applicants. | 4.3.3 Honesty | 4.7.3 I must give opinions which are as far as possible unbiased and objective. |

6 [1]	A software development company has just produced a new software package that incorporates the new tax laws and figures taxes for both individuals and small businesses. The president of the company knows that the program has a number of bugs. He also believes the first firm to put this kind of software on the market is likely to capture the largest market share. The company widely advertises the program. When the company actually ships a CD, it includes a disclaimer of responsibility for errors resulting from the use of the program. The company expects it will receive a number of complaints, queries, and suggestions for modification. The company plans to use these to make changes and eventually issue updated, improved, and debugged versions. The president argues that this is general industry policy and that anyone who buys version 1.0 of a program knows this and will take proper precautions. Because of bugs, a number of users filed incorrect tax returns and were penalised by the ATO.	4.3.2 Competence 4.3.3 Honesty 4.3.4 Social Implications 4.3.6 Information Technology Profession	4.6.2	I must give value for money in the services and products I supply.
			4.6.5	I must accept responsibility for my work.
			4.7.1	I must not knowingly mislead a client or potential client as to the suitability of a product or service.
			4.8.5	I must attempt to increase the feelings of personal satisfaction, competence, and control of those affected by my work.
			4.10.2	I must not knowingly engage in, or be associated with, dishonest or fraudulent practices

7 [1]	A small software company is working on an integrated inventory control system for a very large national shoe manufacturer. The system will gather sales information daily from shoe stores nationwide. This information will be used by the accounting, shipping, and ordering departments to control all of the functions of this large corporation. The inventory functions are critical to the smooth operation of the system. Jane, a quality assurance engineer with the software company, suspects that the inventory functions of the system are not sufficiently tested, although they have passed all their contracted tests. She is pressured by her employers to sign off on the software. Legally she is only required to perform those tests which have been agree to in the original contract. However, her considerable experience in software testing has led her to be concerned over risks of the system. Her employers say that they will go out of business if they do not deliver the software on time. Jane contends if the Inventory sub-system fails, it will significantly harm their client and its employees. If the potential failure were to threaten lives, it would be clear to Jane that she should refuse to sign off. But since the degree of threatened harm is less, Jane is faced with a difficult moral decision.	4.3.1 Priorities 4.3.2 Competence 4.3.6 Information Technology Profession	4.5.6	I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work.
			4.6.1	I must endeavour to provide products and services which match the operational and financial needs of my clients and employers.
			4.6.5	I must accept responsibility for my work.
			4.10.6	I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour.
8 [1]	A software consultant is negotiating a contract with a local community to design their traffic control system. He recommends they select the TCS system out of several available systems on the market. The consultant fails to mention that he is a major stockholder of the company producing TCS software.	4.3.1 Priorities 4.3.3 Honesty 4.3.6 Information Technology Profession	4.5.6	I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work.
			4.7.1	I must not knowingly mislead a client or potential client as to the suitability of a product or service.
			4.7.3	I must give opinions which are as far as possible unbiased and objective.
			4.10.2	I must not knowingly engage in, or be associated with, dishonest or fraudulent practices.

9 [1]	Joe is working on a project for his computer science course. The instructor has allotted a fixed amount of computer time for this project. Joe has run out of time, but has not yet finished the project. The instructor cannot be reached. Last year Joe worked as a student programmer for the campus computer centre and is quite familiar with procedures to increase time allocations to accounts. Using what he learned last year, he is able to access the master account. Then he gives himself additional time and finishes his project.	4.3.1 Priorities 4.3.6 Information Technology Profession	4.5.2	I must endeavour to preserve the integrity and security of the information of others. (Query this) I must not knowingly engage in, or be associated with, dishonest or fraudulent practices.
			4.10.2	
10 [2]	Consider an HCI consultant with extensive experience in evaluating web sites and graphical user interfaces (GUI). She has just received an evaluation contract for a new accounting product made by Company A due to her prior experience with e-commerce site evaluation. The work involves assessing the training requirements and the usability of the system. During the initial configuration of her usability laboratory she becomes aware that that software she is to evaluate contains a GUI already patented by a rival Company B, which she evaluated several weeks before. Under her contractual arrangements she is not allowed to discuss the evaluation of a product with anyone outside the contract. She therefore has an obligation to Company B not to provide information regarding their product to anyone else without their permission. She has a similar obligation to Company A. Can she continue with the evaluation? If she cannot continue with the evaluation how does she inform Company A of the patent violation? Does she have an obligation to let company B know Company A has copied their GUI?	4.3.1 Priorities 4.3.2 Competence 4.3.3 Honesty	4.5.3 4.5.5 4.6.3 4.6.6 4.6.7 4.7.1	I must respect the proprietary nature of the information of others. I must advise my client or employer of any potential conflicts of interest between my assignment and legal or other accepted community requirements. I must make myself aware of relevant standards, and act accordingly. I must advise my clients and employers when I believe a proposed project is not in their best interest. I must advise my clients and employers when I believe a proposed project is not in their best interest. I must not knowingly mislead a client or potential client as to the suitability of a product or service.

11 [2]	An internal usability team wanted to perform a usability test on a web site using half internal and half external participants. Would the consent form designed for external users also be used for the internals? Some members of the usability team argued that the terms of employment were sufficient to require internals participate. Others argued that the purpose of 'consent' was to ensure that participants understood why they had been asked, what was going to happen, what data would be collected, how it would be used and that they were free to leave any time. Given that the company had paid for usability testing, and given that the employees had agreed to work for the company for payment, is the employee free to leave?	4.3.4 Social Implications

4.3.6 Information Technology Profession | 4.8.3 | I must respect my employees and refrain from treating them unfairly.

4.10.1 I must respect, and seek when necessary, the professional opinions of colleagues in their areas of competence.

4.10.6 I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour. |
| 12 [2] | You have been asked to observe how junior management use new accounting software at a leading city accounting firm. As part of informed consent, staff are informed that they will remain anonymous. As part of your observations, you notice that many of the junior management staff are making a particular data entry error when using this software. These errors are causing the accountancy firm to lose profit. Company policy dictates clearly that workers salaries will be docked for clear mistakes leading to loss of company profit. Do you take the edge off the results to protect the people who helped you in the study? | 4.3.1 Priorities

4.3.3 Honesty

4.3.4 Social Implications | 4.5.4 | I must endeavour to preserve the confidentiality of the information of others.

4.5.6 I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work

4.7.1 I must not knowingly mislead a client or potential client as to the suitability of a product or service.

4.8.2 I must consider and respect people's privacy which might be affected by my work.

4.8.3 I must respect my employees and refrain from treating them unfairly. |

13 [2]	You are contracted by a Web design consultancy company to interview their staff to ascertain their current knowledge. The aim of the study is to inform the company about the type of training courses they need to implement. The aim is therefore to highlight areas of overall weakness as opposed to individual shortcomings. Despite this, the type of data you collect will be able to identify individual's weaknesses. Informed consent clearly stares that comments made to you by interviewees are to remain private. Following the study, a senior Vice President of the company approaches you, asking you "who did well in the study?" What do you say?	4.3.1 Priorities 4.3.4 Social Implications		4.5.4 4.5.6 4.8.2 4.8.3	I must endeavour to preserve the confidentiality of the information of others. I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work. I must consider and respect people's privacy which might be affected by my work. I must respect my employees and refrain from treating them unfairly.
14 [3]	A retired nurse applied for a pension from Centrelink, and was informed that she would receive a small pension of $8 per fortnight, and a Pension Card. She then received a letter saying that her pension would not be paid because she had assets of over $18 million, and an annual income of over $770,000. It took this lady several attempts to get Centrelink to examine her case. Finally, the cause of the mistake was found to be a "human error" when the lady's investment details were coded into the computer. When the cause of the mistake was discovered, she was informed that they "couldn't remove it from the computer". Centrelink claimed that this was an "isolated incident". However, at the same time, another man was discussing with Centrelink their claim that he had an income of $6 million, which was not the case.	4.3.2 Competence 4.3.3 Honesty 4.3.4 Social Implications		4.6.1 4.7.1 4.8.5	I must endeavour to provide products and services which match the operational and financial needs of my clients and employers. I must not knowingly mislead a client or potential client as to the suitability of a product or service. I must attempt to increase the feelings of personal satisfaction, competence, and control of those affected by my work.

15 [4]	The initial estimate, in late 1999, for the re-vamp of the web site of the Dept. of Communications, Information Technology and the Arts (DCITA), was $600,000. The final price was over $4 million. The department provided a number of excuses/reasons for the excessive costs, including "over-ambitious expectations"; "a relatively immature understanding of the new content management technologies'; changes in the scope of the project; no allowance made for support of existing web site during the project; and no allowance for the tendering process. A spokesman stated that the department did not have " adequate development skills at the outset of the process…"	4.3.2 Competence 4.3.3 Honesty 4.3.6 Information Technology Profession	4.6.1 4.6.2 4.7.2 4.7.4 4.7.5 4.10.1	I must endeavour to provide products and services which match the operational and financial needs of my clients and employers. I must give value for money in the services and products I supply. I must not misrepresent my skills or knowledge. I must give realistic estimates for projects under my control. I must qualify professional opinions which I know are based on limited knowledge or experience. I must respect, and seek when necessary, the professional opinions of colleagues in their areas of competence.
16 [5]	In December 1999, IBM-GSA was one of three tenderers for the IT outsourcing contract for the Departments of Health, Aged Care and the Health Insurance Commission (the Health Group), along with CSC and EDS. During the tender process, IBM-GSA was supplied with computer disks containing critical information relating to final pricing of their rival tenderers. IBM-GSA subsequently revised its tender after the due deadline and the minister announced they were the successful bidder. At the time, the Office of Asset Sales and Information Technology Outsourcing (OASITO) described giving IBM-GSA details of their rival's bids as an 'inadvertent error'. The minister dismissed the Opposition's call for an immediate halt to the tender process. Three years later, the minister, now retired, admitted that the $350 million tender should have been cancelled. He told the Audit Office in September 2002: *"When the disc containing all three bids was delivered to IBM GSA in error my reaction on being informed directly by OASITO was to cancel the tender. I could not see that a tender process with integrity could continue. At the conclusion of the tender I was both disappointed and annoyed at the*	4.3.1 Priorities 4.3.4 Social Implications 4.3.6 Information Technology Profession	4.5.2 4.5.3 4.5.4 4.8.2 4.10.2 4.10.6	I must endeavour to preserve the integrity and security of the information of others. I must respect the proprietary nature of the information of others. I must endeavour to preserve the confidentiality of the information of others I must consider and respect people's privacy which might be affected by my work. I must not knowingly engage in, or be associated with, dishonest or fraudulent practices I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour.

limited role of the Probity Auditor and the absence of a separate report on the issue." Not only did the tender continue, with IBM-GSA being awarded the contract, but the minister's claim that the Probity Auditor's role was limited was contradicted by evidence provided by OASITO to a Senate Estimates hearing on 8 February 2000. OASITO representatives told Senate Estimates that the management of the tender: "…*was conducted in accordance with the advice from both the probity auditor and our legal advisers engaged for the initiative. All parties concurred at the time that the process could continue unchanged [OASITO] briefed the probity auditor in person [who] immediately came back to us with a proposed course of action…We engaged the probity auditor to participate in all of our discussions to make sure that he fully witnessed the nature of the discussions…and he was happy that we had delivered the messages in accordance with his proposed course of action."*		

| 17 [6] | A consultant was engaged by a large private sector company to help run a tender process for some new software. The process was that tenderers would be short-listed on functional requirements, there would be a detailed evaluation of the short-listed tenders, and then the evaluation panel would look at the prices tendered.

While preparing the documents for the panel the consultant was required to remove the pricing information from the body of some of the documents. As a result he became aware that several of the vendors' prices were well above the budget set by the client.

At the end of short-listing the consultant thought his manager should know about this problem so that he could deal with it early, and not waste a lot of time evaluating unaffordable tenders. He decided to make sure he was right by checking the prices of all of the tenders. He then told his manager that he had looked at the prices and the business could not afford any of the short-listed proposals. The consultant did not tell his manager or anyone else what the prices were.

His manager was very angry that he had disobeyed orders and looked at the prices before the time agreed, and he terminated the consultant's contract without notice. This upset the consultant, because he thought he had done the right thing by his employer. Fortunately another area of the company offered him a different contract soon afterwards. He told them about the issue with the tenders, and they did not think it was a problem.

However, two weeks into the new contract his manager went to HR, accused the consultant of professional misconduct and had his new contract terminated without notice. The consultant's agency will not take this issue up with the company because the manager has threatened the agency's other contractors if they did.

Do you think the company has been fair? What advice would you give to the consultant? | 4.3.2 Competence

4.3.3 Honesty

4.3.6 Information Technology Profession | 4.6.1 I must endeavour to provide products and services which match the operational and financial needs of my clients and employers.

4.6.6 I must advise my clients and employers when I believe a proposed project is not in their best interest.

4.6.7 I must go beyond my brief, if necessary, in order to act professionally.

4.7.1 I must not knowingly mislead a client or potential client as to the suitability of a product or service.

4.10.6 I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour.

4.10.7 I must seek advice from the Society when faced with an ethical dilemma I am unable to resolve by myself. |

| 18 [6] | Jim, a member of the Australian Computer Society, was contracted as a test consultant to a client, to provide testing and quality assurance services. Initially there was a testing manager, Ken, Jim as team lead, and two test analysts, one of them on loan from the vendor. Ken had hired the two test analysts and Jim for the project. The system under test had a web browser front end, with an interface for successful customer product orders to SAP for order fulfilment and order transfer to 3rd party vendors. The testing effort initially seemed manageable, but as the team delved into the task they found the complexity increasing substantially. Suddenly, and voluntarily, Ken left the project approximately 4 weeks after Jim started, when budget issues became apparent. At the time the rest of the team were confused, and questions were asked as to who would take over Ken's responsibilities. Jim took it upon himself to ensure that a fully tested system was delivered to the business, and thus he gladly accepted more responsibility. Problems soon arose when Jim realised that the two test analysts hired by Ken were not up to the task of performing the testing preparation needed for such a complex system. Al, the analyst from the vendor, was initially brought in to handle the SAP functionality testing component. Al told Jim that he didn't know anything about SAP, and did not want the responsibility of writing the SAP test cases. A few weeks later Jim found out that Ken and Al had previously worked on a project together for the client, and that Ken was fostering relationships with the vendor by hiring its consultants for testing roles within the client's IT projects. This was the first time that the other test analyst, Col, had lived and worked overseas, so he was finding his feet in a new work and social environment. | 4.3.1 Priorities

4.3.2 Competence

4.3.3 Honesty

4.3.5 Professional Development

4.3.6 Information Technology Profession | 4.5.1   I must endeavour to preserve continuity of information technology services and information flow in my care.

4.6.1   I must endeavour to provide products and services which match the operational and financial needs of my clients and employers.

4.6.5   I must accept responsibility for my work.

4.6.7   I must advise my clients and employers when I believe a proposed project is not in their best interest.

4.7.1   I must not knowingly mislead a client or potential client as to the suitability of a product or service.

4.7.2   I must not misrepresent my skills or knowledge.

4.7.3   I must give opinions which are as far as possible unbiased and objective.

4.9.3   I must encourage my colleagues, employees and students to continue their own professional development.

4.10.1 I must respect, and seek when necessary, the professional opinions of colleagues in their areas of competence.

4.10.6 I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour.

4.10.7 I must seek advice from the Society when faced with an ethical dilemma I am unable to resolve by myself. |

Both test analysts needed considerable more time than usual to write the test cases, as they were having difficulty comprehending the requirements and functional specifications, although Jim had held workshops to assist in their preparation. When the difficulties in performing basic test preparation became apparent, Jim asked both analysts about their previous testing experiences. He found that Al had only two years experience, while Col had only one years experience in testing, and he had no previous Telecommunications experience.

Issues came to a head when Al could not meet the deadlines for his test cases, although he had been given the easiest cases to write. Jim, and Bob, the project manager, felt that Al was more of a hindrance than a help to the team and, noting that he was an expensive vendor resource, they made the decision that Al's services were no longer required. Al was not sacked, however his Purchase Order would run out soon and it would not be renewed.

Al was not happy about this and he became very confrontational in two closed meetings with Jim, who considered Al's behaviour as unprofessional. These incidents, coupled with Al's poor work deliverables, prompted Jim to ask the vendor to be involved in a performance review so both the vendor and Al could benefit from objective feedback.

Ken was no longer on the project, and he had not had any formal or informal business contact with Jim for at least 5 weeks. However, Ken, in a closed meeting, asked Jim to retract his request for a performance review, as he, Ken, said that he might re-hire Al for future projects.   He asked Jim to email the vendor saying that he would not require a performance review for Al, and that there were no issues with Al's performance. Jim did neither.

Not long after this incident the project was placed on hold by the client. The project scope had crept alarmingly to the point where it was considered that delivery was impossible for the planned dates, and an internal audit was conducted to investigate the project slippage. When the project was halted the test team was immediately released as their services were not needed for the time being. Jim was approached by another senior testing manager, Ben, to work on a project that would be for approximately 9 months. An interview was arranged with Ben, Jim and the client business sponsor. The day before the interview Ben rang Jim to say that the interview was cancelled and that Jim would not be considered because Ben had received a bad review of Jim. Ben didn't say who had said this, but Jim later found out from a reliable source that it was Ken.		

19 [6]	The following stories cover the use of unlicenced software, or the contravention of a licencing agreement. None of the organisations mentioned are members of the Business Software Association of Australia (BSAA), although one is associated with the US parent organisation.	4.3.1 Priorities	4.5.3	I must respect the proprietary nature of the information of others.
		4.3.2 Competence	4.6.1	I must endeavour to provide products and services which match the operational and financial needs of my clients and employers.
	1. A reseller sells "additional user" software licences to a client for a project, but installation will be delayed for some months, so third-party software licences are not acquired from the supplier immediately. When the software is eventually "supplied" to the end-user client, no CDs or licence keys are required. At a subsequent date it is "rediscovered" that the additional licences were never purchased from the supplier, and moves are made to acquire these. The Manager stops the Purchase Order being raised, wanting assurances that the licences were not purchased. Documentation is produced to show that licences were sold, these licences were never purchased from the supplier, and that the client has the additional licences. The Manager claims to "want to confirm other paperwork and negotiate a price with the supplier", but there is doubt that this is a genuine response. Perhaps there is no intention to purchase the licences from the supplier in the hope that the situation is not discovered. After a week, the paperwork seems to be back in the file to be forgotten again.	4.3.3 Honesty	4.7.1	I must not knowingly mislead a client or potential client as to the suitability of a product or service.
			4.7.3	I must give opinions which are as far as possible unbiased and objective.
		4.3.4 Social Implications	4.8.6	I must not require, or attempt to influence, any person to take any action which would involve a breach of the Code of Ethics.
		4.3.6 Information Technology Profession	4.10.1	I must respect, and seek when necessary, the professional opinions of colleagues in their areas of competence.
			4.10.2	I must not knowingly engage in, or be associated with, dishonest or fraudulent practices
			4.10.6	I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour.
			4.10.7	I must seek advice from the Society when faced with an ethical dilemma I am unable to resolve by myself.
	2. A client acquires "additional user" software licences from a distributor under a special licence agreement that varies from the normal end-user licence agreement. This variation allows the same licence keys to be reused on multiple installations. The Distributor warrants that it is authorised to make these variations to the licence agreement. The details of the arrangement with the supplier that authorised this are not available, but when it has been discussed, "it's all confidential" is the stock answer. The client is invoiced for the additional			

licences, but in one case a note on the file and another verbal advice to staff by the Manager says "do not order on supplier". It is possible but unlikely that the arrangement with the supplier allows the distributor to make unlimited sales to its clients without further payment to the supplier. Subsequent to this, the supplier makes a change to introduce an "unlimited user" licence for the latest version that, if purchased, and the client were to upgrade to it, would regularise the transaction. Would such a changed event and/or the passage of time be sufficient to regularise the transaction?

3. A distributor, that may or may not have a current and valid reseller agreement, uses "demo" or "not for resale" software in its day-to-day operations.

4. An end user, in a system failure and recovery situation, allows the operating system and firewall software licensed to another company, to be installed to "get the system back up".   It is not clear if there is intention to subsequently license the software, or if it will become an "administrative oversight". What is a reasonable time to regularise such use, and would it then become software piracy after that time?

5. An end user licenses utility software from a small supplier by internet download, and receives a licence key for one user. The licence agreement provides:

> This copy of xxxxxxxx may either be used by a single person who uses the software personally on one or more computers, or installed on a single workstation used non-simultaneously by multiple people, but not both. This is not a concurrent user licence.

The use of this software becomes part of the company's standard procedures and all staff need a copy on their PCs. The one licence key is published and shared by all employees.

20 [7]	A manager gave a contractor permission to work off-site because of family problems. Remote on-line access was granted for the contractor, to a large government computing facility. All that was needed was the manager's signature to approve the arrangement. The manager went on leave before the papers were returned, and the acting manager cancelled the off-site work at the last minute, because departmental policy was not to allow remote access to contractors.	4.3.1 Priorities	4.5.1	I must endeavour to preserve continuity of information technology services and information flow in my care.	
		4.3.4 Social Implications	4.8.3	I must respect my employees and refrain from treating them unfairly.	
21 [7]	Live data is used in the final testing of a new system, and the system then is formally approved by a QA group. The output from this final test has been released to the client as a genuine report, before QA approval has been given.	4.3.1 Priorities	4.5.2	I must endeavour to preserve the integrity and security of the information of others.	
			4.5.4	I must endeavour to preserve the confidentiality of the information of others.	
			4.5.6	I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work	
		4.3.2 Competence	4.6.5	I must accept responsibility for my work.	
			4.6.7	I must advise my clients and employers when I believe a proposed project is not in their best interest.	
		4.3.3 Honesty	4.7.1	I must not knowingly mislead a client or potential client as to the suitability of a product or service.	
		4.3.4 Social Implications	4.8.6	I must not require, or attempt to influence, any person to take any action which would involve a breach of the Code of Ethics.	

22 [7]	A QA group has decided to sign off a system without doing any testing, because they trust the customer and development team to test the system better than they can. (Look at this from several points of view: the QA group, an individual in QA, the customer, the development team, the team leader (eg. should s/he tell the customer?)	4.3.1 Priorities	4.5.1	I must endeavour to preserve continuity of information technology services and information flow in my care.
			4.5.6	I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work.
		4.3.2 Competence	4.6.1	I must endeavour to provide products and services which match the operational and financial needs of my clients and employers.
			4.6.5	I must accept responsibility for my work.
			4.6.7	I must advise my clients and employers when I believe a proposed project is not in their best interest.
		4.3.3 Honesty	4.7.1	I must not knowingly mislead a client or potential client as to the suitability of a product or service.
		4.3.4 Social Implications	4.8.6	I must not require, or attempt to influence, any person to take any action which would involve a breach of the Code of Ethics.

23 [7]	In a large organisation, all software development and support work has to be carried out against budget codes. Maintenance work is a fixed amount on an internal code, and is usually insufficient to cover the work to be done. All development work is funded by the customer, and paid for by an internal funds transfer. It has become common practice to sneak in maintenance work under funded development work, because the customer does not know the scope of the development task, and hence how much it should cost	4.3.1 Priorities	4.5.1	I must endeavour to preserve continuity of information technology services and information flow in my care.
			4.5.6	I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work.
		4.3.2 Competence	4.6.1	I must endeavour to provide products and services which match the operational and financial needs of my clients and employers.
			4.6.2	I must give value for money in the services and products I supply.
			4.6.7	I must go beyond my brief, if necessary, in order to act professionally.
		4.3.3 Honesty	4.7.1	I must not knowingly mislead a client or potential client as to the suitability of a product or service.
			4.7.4	I must give realistic estimates for projects under my control.
		4.3.4 Social Implications	4.8.6	I must not require, or attempt to influence, any person to take any action which would involve a breach of the Code of Ethics.
		4.3.6 Information Technology Profession	4.10.2	I must not knowingly engage in, or be associated with, dishonest or fraudulent practices
			4.10.6	I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour.

24 [7]	Over the years a number of systems have been developed which record coded information across a range of factors about disabilities in ethnic communities. A new coding convention has been developed to rationalise the inconsistent coding conventions of these legacy systems. The new coding convention uses codes which had different meanings in the legacy systems. This means that time series analysis gives inconsistent results, particularly showing both under and over reporting of numbers of particular disability categories. This is significant when making policies for people based on the size of the communities. To fix this would take a lot of work and expense, and management has decreed that historical systems will not be fixed, but new systems will all adopt the new coding convention.	4.3.1 Priorities 4.3.2 Competence	4.5.1 4.5.2 4.6.1 4.6.6	I must endeavour to preserve continuity of information technology services and information flow in my care. I must endeavour to preserve the integrity and security of the information of others. I must endeavour to provide products and services which match the operational and financial needs of my clients and employers. I must advise my clients and employers when I believe a proposed project is not in their best interest.
25 [8]	When Ilnaz, a 22-year-old female originally from Iran, did well in her job interview, the manager of CompuSoft, an Australian company that specialises in the design of CD ROMs, offered her the job immediately. Ilnaz, who needed this job, was so happy that she accepted the offer straightaway. When she reported to work the beginning of the following week, she found that she has to share the office with a male colleague. Apparently her manager placed her with Jason because both of them will be doing similar tasks in nature. The manager thought that this way they would both help, and learn from, each other. He also thought, that given that they also both will be working together in a joint project that the company had just acquired, it was important that they both have access to each other during the day. Ilnaz, however, was not happy with this arrangement as it was against her religion and culture to be in complete isolation with an unrelated man. Her husband was also upset and threatened to stop her from going to work when he learned about this arrangement. The following day, Ilnaz goes immediately to her manager and asks him what should she do	4.3.4 Social Implications	4.8.1 4.8.3 4.8.5	I must protect and promote the health and safety of those affected by my work. I must respect my employees and refrain from treating them unfairly. I must attempt to increase the feelings of personal satisfaction, competence, and control of those affected by my work.

26 [8]	Company X has just signed a business agreement with Company Y, which entitles both of them to access each other clients' records. Faisal, a software programmer at Company Z, was assigned the task of developing a software program that handles the access and retrieval of records from each Company's database system into the other. A first run of the software on real data indicated that the work was well within the state of the art, and no difficulties were found or anticipated.	4.3.1 Priorities		4.5.1	I must endeavour to preserve continuity of information technology services and information flow in my care.
				4.5.2	I must endeavour to preserve the integrity and security of the information of others.
				4.5.4	I must endeavour to preserve the confidentiality of the information of others.
				4.5.5	I must advise my client or employer of any potential conflicts of interest between my assignment and legal or other accepted community requirements.
	Several weeks later and during a normal test on the software developed, Faisal discovered a serious 'security hole' in the database system of Company Y by which hackers can easily obtain confidential information about clients. He was convinced that while the software he developed could correctly accomplish the task, the code in Company Y's database system could not be trusted as the security hole posed a threat even on Company X's database system. Faisal told his manager about the problem and explained its significance. The manager's response was, "That's not our problem; let's just be sure that our software functions properly." Faisal is not sure what to do. Refusing to work on the project means disobeying his manager's orders. Continuing to work on the project, means disobeying one of God's commands, which requires him to be truthful and sincere in his dealings.			4.5.6	I must advise my clients and employers as soon as possible of any conflicts of interest or conscientious objections which face me in connection with my work.
		4.3.2 Competence		4.6.6	I must advise my clients and employers when I believe a proposed project is not in their best interest.
		4.3.3 Honesty		4.7.1	I must not knowingly mislead a client or potential client as to the suitability of a product or service.
		4.3.4 Social Implications		4.8.5	I must attempt to increase the feelings of personal satisfaction, competence, and control of those affected by my work.

27 [8]	Nirmal is the IT manager in a government department with more than 500 staff members and six branches across Australia. His department has decided to acquire an enterprise resource planning (ERP) system. An RFT for the procurement of the software was advertised in a number of Australian newspapers. Two local companies responded to the advertisement and sent their offers to the department. When Nirmal opened the envelopes and examined the offers he found that company A's offer is slightly better than company B's offer. To his surprise, company B's offer was made by his best friend Devraj, who is the general manager of company B. Company A's software appeared to be easier to use and easier to modify compared to company B's software. Although the initial cost of company B' software appeared to be less than that of company's A, the former may require some 'tools-consultants' to modify it and some 'business-consultants' to assist in running it, which might eventually raise the total cost. To complicate matters more, Nirmal received a phone call from Devraj, who urged him to favour his offer, as he is quite desperate to get this deal. He also reminded him that the 'tools and business consultants' who might be needed in the project will be recruited from his home country which means more jobs for his countrymen and in turn more money sent home. Nirmal is indeed in a difficult position.	4.3.1 Priorities 4.3.2 Competence 4.3.3 Honesty 4.3.6 Information Technology Profession	4.5.5	I must advise my client or employer of any potential conflicts of interest between my assignment and legal or other accepted community requirements. 4.6.1 I must endeavour to provide products and services which match the operational and financial needs of my clients and employers. 4.7.1 I must not knowingly mislead a client or potential client as to the suitability of a product or service. 4.10.2 I must not knowingly engage in, or be associated with, dishonest or fraudulent practices 4.10.6 I must take appropriate action if I discover a member, or a person who could potentially be a member, of the Society engaging in unethical behaviour. 4.10.7 I must seek advice from the Society when faced with an ethical dilemma I am unable to resolve by myself.
28 [9]	Katherina, an ACS member, provides extensive, voluntary assistance to a number of disability support groups. The support groups now use ICT for the benefit of their clients, and to run the organisations more effectively. For this work Katherina is made a Fellow of the ACS.	4.3.6 Information Technology Profession	4.10.4	I must co-operate in advancing information processing by communication with other professionals, students and the public, and by contributing to the efforts of professional and scientific societies and schools.
29 [10]	The ACS Disciplinary Committee has decided to hold its meetings In Camera, and not make available the results of their determinations to the complainants, nor the general membership. This, they say, is to protect the reputation of the members who come before the committee.	4.3.6 Information Technology Profession	4.10.8	I must do what I can to ensure that the corporate actions of the Society are in accordance with this Code of Ethics.

30 [9]	At an ACS Council meeting there was not a clearly defined and documented procedure to elect the National Office Bearers.	4.3.6 Information Technology Profession	4.10.8	I must do what I can to ensure that the corporate actions of the Society are in accordance with this Code of Ethics.
31 [8]	Peter and Allan, who both share the same office, are systems designers at QBase, an Australian company that specialises in the development of computer databases. Peter is a newly converted Muslim and is committed to perform his prayers regularly. Unfortunately he is having difficulty saying his prayer around 1:00 pm in the afternoon. His prayer takes only 2-3 minutes and does not require any special rituals or arrangements. He could offer his prayer in the office by standing and facing in one direction and mutely reciting a few verses, but he is afraid Allan might not feel comfortable about that. He could offer his prayer at his house which is close by his office but the return-trip takes usually 20-25 minutes and that time is taken from work.	4.3.4 Social Implications	4.8.2	I must consider and respect people's privacy which might be affected by my work.
32 [9]	Anna is a young ambitious programmer working for a small company developing software for web based services in the health area, with a focus on support to remote aboriginal communities. To further her career Anna undertakes additional tertiary study, with support from her manager, Brian. This study includes topics covering computer ethics, and issues relating to the impact of ICT on different communities. On her current project, Anna develops a new user interface, which has a strong focus on accessibility for remote communities, especially considering the type of technology likely to be used. She also pays special attention to the use of cultural images in the interface, to avoid those which may be distressing or offensive to aboriginal users. The new system is a great success and Anna's contribution is recognised by her company, through an Employee of the Month Award. The company also receives a national business award for its contribution to the positive use of ICT in aboriginal communities. Brian takes all of the credit for this, and Anna receives no acknowledgement for her efforts.	4.3.4 Social Implications 4.3.5 Professional Development 4.3.6 Information Technology Profession	4.8.4 4.9.1 4.9.2 4.10.3	I must endeavour to understand, and give due regard to, the perceptions of those affected by my work. I must continue to upgrade my knowledge and skills. I must increase my awareness of issues affecting the information technology profession and its relationship with the community. I must not attempt to enhance my own reputation at the expense of another's reputation.

33 [9]	Carol is a popular person who has worked hard in the ICT industry. She is currently a team leader of a group of software developers in a large company providing outsourced services to the Federal government. She is a Member of the ACS and decides to contribute to her profession by playing an active role in the local branch of the Society, and is elected Treasurer. Carol has some financial problems, and forges signatures on cheques to embezzle $5,000 from the branch's reserves to pay for medical treatment for her child. When she is inevitably found out she returns the money, and her membership of the ACS is terminated, but she continues in her job. Several members of her team are also ACS members. How should they treat their team leader?	4.3.6 Information Technology Profession	4.10.5 I must distance myself professionally from someone whose membership of the Society has been terminated because of unethical behaviour or unsatisfactory conduct. 4.10.9 I acknowledge my debt to the computing profession and in return must protect and promote professionalism in information technology.

References

 [1] Burmeister, O.K, (2000), *Applying the ACS Code of Ethics*, Journal of Research and Practice in Information Technology, Vol. 32, No. 2, May.

[2] Burmeister, O.K., and Weckert, J., (2003), *Applying the new software engineering code of ethics to usability engineering: A study of four cases*, Info, Comm & Ethics in Society, Troubadour Publishing Ltd.

[3] Canberra Times, (7 April 2003), "*Costly upgrade: sprinting for cover",* page 15.

[4] Canberra Times, (11 July 2003), "*Centrelink letter one in a million",* page 1.

[5] Senator Kate Lundy (5 November 2002) "*Fahey finally tells the truth,: tendering process for Health's IT Outsourcing Program was without integrity*", Media release.

[6] From Barry de Ferranti (ACS) - These are real situations, modified to remove names.

[7] From Richard Lucas (CSU), based on actual events

[8] From Yeslam Al-Saggaf (CSU) These cases relate to issues of different customs and cultures in the workplace.

[9] From Mike Bowern. (Case 30 is to generate discussion on the idea that the ACS should be run in an ethical, business-like manner)

[10] From Richard Lucas (This case has been added to generate discussion on the role of the Disciplinary Committee)

Note:
The cases in the following reference paper also appear in Burmeister (2000), which addresses the ACS Code of Ethics. So the Burmeister paper has been cited.
Anderson, R.E., Johnson, D.G., Gotterbarn, D., Perrolle, J., (1993), *Communications of the ACM*, February, Vol. 36, No. 2.