Ethical Theories

Authority	Parents/teachers/gods make your ethical decisions for you Depends on infallibility of source
Intuitive	Natural ethical judgements Problems where there is no clear choice, or where group decisions are necessary
Egoist	Rights derive from self interest "Ethical Egoism": we ought to act in our self interest Group decisions hard
Consequentialist	Utilitarianism: maximises overall preference satisfaction: problems if they are "bad" Problems: is the goal to be maximised itself ethical? Can we predict consequences? Every act has consequences, and we can end up treating individuals very badly to help society as a whole
Deontological	Based on the duties of the individual: a right implies an obligation by others to uphold it
Reason-Based	Natural rights: agreements defined through communication Kantian: act only on the maxim which you can will to be a universal law
Social-Order	Egoistic Contract: socially enforced contracts, like NR Rawls Theory Of Justice: justice of a practice is determined by whether we would be happy to be subject to that practice. Can we put on the veil of ignorance?

Professional Practice

Professions	Register of members Serving the public Having a specialised learning where the public needs protection from incompetence Taking responsibility for actions and maintenance of public confidence Continuing professional development or practice
Professional Relationships	Employers: loyalty, non-compete agreements Clients: agency model (only do clients wishes), paternalistic model (make all the decisions about how to satisfy clients),

interactive model (do both)
Public: cost-cutting / increased public risk tradeoff, accessibility
Professionals: "dignity", support others in development
All of these are arguably in the interest of profession

BCS Code Of Conduct

Purpose	Pre-empting legislation
Public Interest	Carry out work with care and diligence, in interests of users Health, safety, environment Rights of third parties Know & comply with legislation No discrimination in activities Reject offers of bribery
Relevant Authority	Avoid conflicts of interest No disclosure of confidential info No taking advantage ignorance
Profession	Uphold reputation of profession Act with integrity in relationships Regard for effects of statements Notify of conviction/bankruptcy
Competence	Upgrade professional knowledge Don't lie about competence Observe the code of practice Accept responsibility for work

Computer Cracking

"Information Should Be Free"
Privacy, national security, problems of economic incentive to develop information
"Break ins reveal security flaws"
These same skills can be used nefariously
"Cracking is educational"
Better ways of learning, good must be balanced by harm caused by cracker culture

Response	Change social attitudes: see the cracker as a benign burglar Educate in the ethical use of computers at an early age Professional conduct Legislation (computer misuse) Institutional safeguards (rules about access and responsibility)
Computer Misuse Act	New offences: unauthorised entry, entry with intent to commit or assist crime, altering data without authorisation Extended to cover those who conspire and all those crimes with a significant link in the UK

Data Privacy

Why privacy? Data may be wrong, irrelevant information may be used because of its availability, personal information **must** be supplied to do most things

What is it? When information sharing is controlled partly by the subject, but privacy is preserved if information is distributed along legitimate social relations

How do we protect it? Recipient must have a use for data (the purposes of the recipient must be connected with the interests of the subject) Availability of information must be related to the degree of confidentiality of the information Subjects must have a way of discovering what information is held about themselves

Data Protection Act Data shall be processed fairly and lawfully: subject must give consent (exceptions: contracts, government) and subject has information about processing (likely consequences, purpose, disclosure risk, identity of data processor) Personal data only obtained for specified and lawful purposes Data held shall be adequate, relevant and not excessive in relation to purpose Data shall be accurate Data not kept for longer than necessary Data subjects have rights: prevent processing for marketing/distress reasons, notified of processing, can seek order to block processing and compensation for contravention Technical and organisational measures taken against unlawful processing Personal data not transferred to a country outside the EC unless that country has adequate protections for that data

Software And Property

Property Law Natural rights argument (labour of production precludes the object produced being taken) Consequentialist argument more applicable to software (economic incentive to develop required for social progress) Free software implies non-monetary reward, but funding for developers must now come from another source

Copyright Applies to expression of idea Object code and source covered

Patent Applies to idea (i.e. algorithm) Right to exclusive production Reproduction becomes possible

Trade Secrets Novel, valuable information that a company makes an effort to keep secret: applies to software by **licensing** to customers

Software Ownership Ownership both helps and inhibits progress: a trade off Too much ownership means that many licences and agreements need consideration

Free Software Source code available, protected by copyleft (viral freedom) No needless duplication of effort Users can make changes and support it themselves (we hope) Errors easier to find Computing less expensive Programming encouraged