



THE UNIVERSITY of EDINBURGH  
**informatics**

Professional Issues Professions and Professionals

# **PROFESSIONS AND PROFESSIONALS**



# Professionals

- What is a profession
- Professional Conduct
- Professional bodies in Computing
- Computer Misuse

# The Bell Pottinger Case

Bell Pottinger was expelled on Monday from the UK's Public Relations and Communications Association (PRCA), which decided the campaign it ran for the Guptas - a family of Indian-born tycoons who are close to president Jacob Zuma - "was by any reasonable standard of judgment likely to inflame racial discord in South Africa".

South Africa's main opposition party, the Democratic Alliance (DA), had complained to the PRCA about the campaign, which portrayed opponents of President Zuma as agents of "white monopoly capital" and coined slogans referring to "economic apartheid".

## **2 Conduct towards the Public, the Media and other Professionals**

A member shall:

- 2.1 Conduct their professional activities with proper regard to the public interest.
- 2.2 Have a positive duty at all times to respect the truth and shall not disseminate false or misleading information knowingly or recklessly, and to use proper care to avoid doing so inadvertently.
- 2.3 Have a duty to ensure that the actual interest of any organisation with which they may be professionally concerned is adequately declared.



# PCRA Code of Conduct Continued

- 2.4 When working in association with other professionals, identify and respect the codes of these professions and shall not knowingly be party to any breach of such codes.
- 2.5 If a member of either House of Parliament, member of a Local Authority or of any statutory organisation or body, record that material in the relevant section of the PRCA Public Affairs and Lobbying Register.
- 2.6 Honour confidences received or given in the course of professional activity.
- 2.7 Neither propose nor undertake any action which would constitute an improper influence on organs of government, or on legislation, or on the media of communication.
- 2.8 Neither offer nor give any inducement to persons holding public office or members of any statutory body or organisation who are not directors, executives or retained consultants, with intent to further the interests of the organisation if such action is inconsistent with the public interest.

# Breakout Session

1. On your own: write a definition of the meaning of “profession” (2 or three lines max).
2. In a pair:
  - compare and discuss your definitions – do they capture what you want to capture?
  - If they differ significantly keep both and refine them, otherwise produce a single refined definition
3. In fours: combine your definitions into at most two definitions: main and alternate.

# Pause – While we do the task in hand

# Profession

Wikipedia: "A **profession** is a vocation founded upon specialised [educational training](#), the purpose of which is to supply disinterested counsel and service to others, for a direct and definite compensation, wholly apart from expectation of other business gain" (New Statesman, 21 April 1917)

Have a look at the Wikipedia page because it is contested precisely on the distinction between the vernacular and technical meanings.





# What Makes a Profession?

“To me, the essence of professionalism is a commitment to develop one's skills to the fullest and to apply [them] responsibly to the problems at hand. Professionalism requires adherence to the highest ethical standards of conduct and a willingness to subordinate narrow self-interest in pursuit of the more fundamental goal of public service”

*Justice Sandra Day O'Connor - US Supreme Court*

## Some other definitions...

“Doing things right and doing the right thing” (*Chambers 20th Century Dictionary*)

“an employment not mechanical and requiring some degree of learning; habitual employment; the collective body of persons engaged in any profession ...”

(lawyers, doctors, architects, surveyors, accountants, engineers, etc )

# The Collective Body

the collective body controls entry to the profession;

the collective body is self governing and self regulatory, in the sense that it establishes and enforces a code of conduct on its members;

the collective body is established either by a Royal Charter or an Act of Parliament which defines the extent of its authority and requires it to undertake certain duties and responsibilities.

# Professional Bodies

Promote and set standards in education

Accredit courses

Promote continuing personal development

Promote advancement of the subject

Promote exchange of knowledge

Give official advice



# USA: Engineer

Term “engineer” much more strictly applied than here

State licensing boards

Applying strict regulation to software engineers would cripple the sector

# BCS Codes

## of **Conduct**

Sets out the professional standards required by the Society as a condition of membership

Covers public interest, duty to relevant authority, duty to the profession, professional competence and integrity

## of **Good Practice**

“describes standards of practice relating to contemporary demands found in IT”

Covers practices common to all disciplines plus some specific to IT, business, education .. Such as:



# Code of Conduct

## 1. Public Interest

You shall:

have due regard for public health, privacy, security and wellbeing of others and the environment.

have due regard for the legitimate rights of Third Parties\*.

conduct your professional activities without discrimination on the grounds of sex, sexual orientation, marital status, nationality, colour, race, ethnic origin, religion, age or disability, or of any other condition or requirement

promote equal access to the benefits of IT and seek to promote the inclusion of all sectors in society wherever opportunities arise.



# Code of Conduct

## 2. Professional Competence and Integrity

You shall:

only undertake to do work or provide a service that is within your professional competence.

NOT claim any level of competence that you do not possess.

develop your professional knowledge, skills and competence on a continuing basis, maintaining awareness of technological developments, procedures, and standards that are relevant to your field.

ensure that you have the knowledge and understanding of Legislation\* and that you comply with such Legislation, in carrying out your professional responsibilities.

respect and value alternative viewpoints and, seek, accept and offer honest criticisms of work.

avoid injuring others, their property, reputation, or employment by false or malicious or negligent action or inaction.

reject and will not make any offer of bribery or unethical inducement.





# The General Data Protection Regulation

GDPR provides the following rights for individuals:

1. The right to be informed
2. The right of access
3. The right to rectification
4. The right to erasure
5. The right to restrict processing
6. The right to data portability
7. The right to object
8. Rights in relation to automated decision making and profiling.



# Rights Related to Automated Decision Making

## **When does the right apply?**

Individuals have the right *not to be subject to a decision* when:

- it is based on automated processing; and
- it produces a legal effect or a similarly significant effect on the individual.

You must ensure that individuals are able to:

- obtain human intervention;
- express their point of view; and
- obtain an explanation of the decision and challenge it.



# Rights Related to Automated Decision Making

## **Does the right apply to all automated decisions?**

No. The right does not apply if the decision:

- is necessary for entering into or performance of a contract between you and the individual;
- is authorised by law (eg for the purposes of fraud or tax evasion prevention); or
- based on explicit consent. (Article 9(2)).

Furthermore, the right does not apply when a decision does not have a legal or similarly significant effect on someone.



# Rights Related to Automated Decision Making

## **What else does the GDPR say about profiling?**

The GDPR defines profiling as any form of automated processing intended to evaluate certain personal aspects of an individual, in particular to analyse or predict their:

- performance at work;
- economic situation;
- health;
- personal preferences;
- reliability;
- behaviour;
- location; or
- movements.



# Rights Related to Automated Decision Making

When processing personal data for profiling purposes, you must ensure that appropriate safeguards are in place.

You must:

- Ensure processing is fair and transparent by providing meaningful information about the logic involved, as well as the significance and the envisaged consequences.
- Use appropriate mathematical or statistical procedures for the profiling.
- Implement appropriate technical and organisational measures to enable inaccuracies to be corrected and minimise the risk of errors.
- Secure personal data in a way that is proportionate to the risk to the interests and rights of the individual and prevents discriminatory effects.

# Breakout Session

1. Individually, do you know any systems that you use that apparently break the GDPR rules on decision making?
2. In pairs, which part of the code of conduct do you think this causes most problem with?

# Pause while we do the exercise

## *International Federation for Information Processing*

“the leading multinational, apolitical organization in Information & Communications Technologies and Sciences  
recognized by United Nations and other world bodies  
represents [IT Societies](#) from 56 countries or regions, covering all 5 continents with a total membership of over half a million  
links more than 3500 scientists from Academia and Industry, organized in more than 101 Working Groups reporting to 13  
[Technical Committees](#)  
sponsors 100 conferences yearly providing unparalleled coverage from theoretical informatics to the relationship between informatics and society including hardware and software technologies, and networked information systems”





# IFIP: no Code of Conduct

Why might that be?

# IFIP: no Code of Conduct

Attempts were criticised as being from the perspective of white well-off males.

Instead it issued guidelines but left this to member organisations

E.g. on viruses: IFIP urges:

- Computer professionals to recognise the disastrous potential of viruses and not to distribute viruses knowingly

- Educators to impress upon students the dangers of viruses

- Publishers to refrain from publishing details of virus programs

- Developers of virus detectors not to distribute viruses as tests

- Resources to be devoted to R & D of protection mechanisms

- Governments to make distribution an offence

As an ACM member I will:

Contribute to society and human wellbeing

Avoid harm to others

Be honest and trustworthy

...

## Mobility directives

Allow movement and professional recognition  
between countries

Fédération Européenne d'Associations Nationales  
d'Ingénieurs

Members can use prefix Eur.Ing.

Maintain your technical competence

Adhere to regulations

Act professionally as a specialist

Use appropriate methods and tools

Manage your workload efficiently

Participate maturely

Respect the interests of your customers

Promote good practices within the organisation

Represent the profession to the public



# Practices covered by the BCS

Information Technology  
Programme/Project Management  
Relationship Management  
Security and Safety  
Change Management  
Quality  
Business Processes  
Research & Development

We'll Look at these in more detail later

# Summary

Members of the Computing Profession are expected:

- to work within the relevant legal framework

- to act within a framework of rules of conduct

- to be familiar with best practice and to exercise judgement in applying it

Important documents to read are

- Bott et al. Chapter 1-3

- BCS Code of Conduct

- BCS Code of Good Practice

Homework for next time:

Write a paragraph contrasting the Code of Conduct with the Code of Practice. In particular invent two example contexts – one where the CoC is more useful than the CoP and vice versa.