

Bioethics and Information Communication Technologies: the Cyprus experience

Dr Michael Voniatis

Chairman

Cyprus National Bioethics Committee

18th NEC Forum, 4th to 5th October 2012

Nicosia, Cyprus

Outline

- **Rationale**
- **Ethics and ICT in EU**
- **ICT in Cyprus**
- **Cyprus response to Ethics and ICT**
- **The role of CNBC on Ethics and ICT**
- **Conclusions**
- **Challenges**

Rationale

- **The rapidly expanding ICT in the 21st Century**
- **The rapidly expanding science, technology and innovation in the field of health and health care**
- **Particularly, in the field of genetics and medical imaging**
- **The accessibility to global health care markets from your home**

Ethics and ICT in EU

The main areas of EU concern with regards to ICT and Ethics are focused on:

- **The identity of individual, in other words the right to be written off or forgotten by the web;**
- **The ownership: “in the web nobody knows who you are”**
- **The protection of personal data and the difficulty to erase personal data when there is a need to do so.**
- **The human rights**
- **The personal autonomy**
- **The fact that the web is beyond and above any boundaries**

Ethics and ICT in EU

Opinion No. 26
Ethics of Information and
Communication Technologies
Brussels, 22 February 2012



Ethics and ICT in EU

The EGE has grouped the 'ethical concerns' regarding ICT under the four headings of:

- 1. A person's identification using ICT, and the development and/or continuous re-interpretation of one's personal identity, in the media made available by ICT;**
- 2. The changes of the social sphere, particularly concerning social relations, culture, education, environment, and e-governance;**
- 3. The new possibilities of political participation and practices of citizenship using ICT;**
- 4. The sphere of e-commerce.**

Ethics and ICT in EU (continued)

- **Medical Profiling and Access to Medicines through the Web: The Ethics of Personal Health Care in the age of Consumer**
- **Today, it is observed that internet offers a number of choices to the consumer and personal responsibility for health care that leads to “personal health care”, which bypass the classic model of health care by physicians and other health care officers.**

The new model functions around three pillars:

- **Consumerism** } **Information through the web**
- **Responsibility** } **Provision of personal data to the web**
- **Individualism** } **Purchase of Medicines through the web; Genetic testing through the web**

Ethics and ICT in EU (continued)

A framework of ethics has been developed that:

- **Secures personal data.**
- **Enables individuals to follow his own interest and benefit.**
- **Encourages governments to try and minimize the damages and losses.**
- **Utilises public sources**
- **Participation in the risks, provision of protection for the weak: *support***

Ethics and ICT in EU

(continued)

Meeting the challenges must be based on evidence-based studies, be rational and applicable.

1. Health Information from the Web

- **Inaccurate information**
- **Misuse of personal data and information**
- **Overall, it is very difficult to check and ensure the authenticity of information and the avoidance of misuse of personal data and information.**

Ethics and ICT in EU (continued)

2. Personal Medical Data

- **Misuse of web kept information and data**
- **It is recommended that a scheme of accredited health registries is introduced and the EU directive on personal data protection is applied (this, however, can only be applied in EU member states)**

Ethics and ICT in EU

(continued)

3. Purchase of medicines through the internet

- **Harmful, fake or inferior quality medicines**
- **Loss of professional advice (physicians, pharmacists)**
- **Misuse of antibiotics, results in antibiotic resistant bacteria**

Recommendations

- **Official registration of web pharmacies (there should be global agreement)**
- **Government web pages should provide information for the dangers and risks; and how to locate and recognize a web based registered pharmacy.**

Ethics and ICT in EU (continued)

4. Direct to the consumer genetic profile testing

- **Authenticity of testing**
- **Reliability or even clinical importance**
- **Difficulty in understanding the results**
- **Increase of additional, unnecessary tests**
- **Increase demand for advise from physicians**

Ethics and ICT in EU

(continued)

5. Body imaging direct to the consumer (Computed tomography, magnetic tomography)

- **Computed tomography exposes human beings to damaging radiation.**
- **Magnetic tomography is possible to reveal non pathological changes that can produce additional unnecessary testing and create undue anxiety**
- **The provided reports it is possible to be difficult to be interpreted.**
- **Consequences on the possibility of health insurance**

Recommendations:

- **Introduction of government regulations in the use of these examinations**
- **Whole body computed tomography to be totally banned**

Ethics and ICT in EU (continued)

Genetic Testing through Internet

- **Pre and after testing counseling should be implemented**
- **Protection of individual's data and information**
- **Request for consent**

ICT in Cyprus

Internet Use in Cyprus

Year	Users	Population	% Pop
2000	120,000	814,200	14.7%
2004	250,000	950,947	26.3%
2007	356,600	971,371	36.7%
2010	433,800	1,102,677	36.7%
2011	584,863	1,102,677	52.2%

ICT in Cyprus (continued)

Internet Use in Cyprus Access

- **Internet access in households continues to increase in Cyprus, according to the Statistical Service of the Republic of Cyprus' annual survey 'Information and Communication Technologies Usage in Households and by Individuals 2011'.**
- **The internet was accessed at least once in 57.4% of the households in the first quarter of 2011, compared to 53.7% in 2010.**

ICT in Cyprus (continued)

Internet Use in Cyprus

- **58.9% of internet users in Cyprus in 2011 are participating in social networks like facebook, twitter etc., according to the Statistical Service of the Republic of Cyprus' annual survey 'Information and Communication Technologies Usage in Households and by Individuals 2011'. ([Statistical Service of the Republic of Cyprus](#), November 2011)**
- **There is no available data as to how many Cypriots purchase medicines, genetic testing, imaging testing or other medical services through the internet.**

ICT in Cyprus (continued)

Television Access

Households with television (%) in Cyprus 100%

Broadcasting Market (2010)

- **CyBC (state channels)**
- **ANT1 }**
- **MEGA }**
- **SIGMA }**
- **Plus TV }**

Audience

19.7%

81.3%

ICT in Cyprus (continued)

Television Access (Cable, DSL, etc TV)

Population and Household Equipment (2009)

Population	803,000	
Households	281,000	
TV Households	281,000	100%
Households with DTT receivers	15,000	5%
Total digital TV Households	101,000	36%

ICT in Cyprus (continued)

Mobile Phones

- **The Mobile cellular subscriptions (per 100 people) in Cyprus was last reported at 93.70 in 2010, according to a World Bank report published in 2012.**

Cyprus response to Ethics and ICT

- **The Processing Of Personal Data (Protection Of Individuals) Law 138 (I) 2001;**
- **The Regulation of Electronic Communications and Postal Services Law of 2004, 112(I) / 2004;**
- **Cyprus Radiotelevision Authority (Radio and Television Stations Law 7(1) of 1998)**
- **Cybercrime legislation**

Cyprus response to Ethics and ICT

Processing Of Personal Data (Commissioner)

The controller shall ensure that the personal data are:

- (a) processed fairly and lawfully;
- (b) collected for specified, explicit and legitimate purposes and are not further processed in a way incompatible with those purposes;
- (c) relevant, appropriate and not excessive in relation to the purposes of processing;
- (d) accurate and, where necessary, kept up to date;
- (e) kept in a form which permits identification of data subjects for no longer than is necessary, in the Commissioner's discretion, for the fulfillment of the purposes for which they were collected and processed. After the expiry of this period, the Commissioner may, by a reasoned decision, allow the preservation of personal data for historical, scientific or statistical purposes if he considers that the rights of the data subjects or third parties are not affected.

Cyprus response to Ethics and ICT

Processing Of Personal Data (Commissioner)

(2) The controller shall be responsible for the destruction of personal data which have been collected or which are further processed in contravention of the provisions of subsection (1). If the Commissioner ascertains, either on his own initiative or following a complaint, that a contravention of the provisions of subsection (1) has occurred, he shall order the interruption of the collection or processing and the destruction of the personal data already collected or processed.

Cyprus response to Ethics and ICT

The Regulation of Electronic Communications and Postal Services Law of 2004 112(I) / 2004

- **The use of automated calling systems without human intervention, (automatic calling machines), or facsimile machines (fax), or electronic mail, or SMS messages, for the purposes of direct marketing, may only be allowed in respect to subscribers who have given their prior consent.**
- **Unsolicited communications for purposes of direct marketing, by means other than those referred to in subsection (1), are not allowed without the consent of the subscribers concerned.**
- **The rights referred to in subsections (1) and (2) above shall apply to subscribers who are natural persons. The Commissioner* may, after consultation with the Personal Data Protection Commissioner, issue an order in order to safeguard that legitimate interests of legal persons, regarding unsolicited communications, are adequately protected.**

Cyprus response to Ethics and ICT

The Regulation of Electronic Communications and Postal Services Law of 2004 112(I) / 2004

- **Notwithstanding subsection (1), in cases where a natural or legal person obtains from its customers contact details for electronic mail, in the context of the sale of a product or a service, the same natural or legal person may use these electronic details for direct marketing of its own similar products or services, provided that customers are clearly and distinctly given the opportunity to object, free of charge and in an easy manner, to such use of their electronic contact details when they are collected and on the occasion of each message in case the customer has not initially refused such use.**
- **In any event, the practice of sending electronic mail for purposes of direct marketing disguising or concealing the identity of the sender or the person on whose behalf the communication is made, or without a valid address to which the recipient may send a request that such communication cease, shall be prohibited.**

Cyprus response to Ethics and ICT

- **The Cyprus Radiotelevision Authority** is a regulating body with wide authorities and responsibilities which make it independent, that enables the authority to regulate and monitor effectively radiotelevision issues.
- The regulation of the radiotelevision landscape aims at securing public interest through the protection of basic human rights and democratic principles like:
 - The right to free expression
 - Free and polyphonic information
 - Transparency concerning the ownership of radiotelevision.

Cyprus response to Ethics and ICT

Cybercrime legislation

- **Cyprus Law 22 (III) 04**
- **Covers offences against confidentiality, integrity and availability of computer data systems.**
- **Content-related offences**
 - **Covers child pornography**
- **Offences related to infringements of copy rights and related rights**

The role of CNBC on Ethics and ICT

- **CNBC has a mandate to screen medical, biomedical and to some extent social research proposals, issue and publish opinions on current bioethical topics, and through this opinions to support the government in the development of appropriate legislation;**
- **The personal data protection is the responsibility of the designated Commissioner;**
- **So far the CNBC has not done any specific work on ICT and bioethics except from advising researchers to seek the opinion of the Personal Data Protection Commissioner when related issues arise in a given proposal.**

The role of CNBC on Ethics and ICT

- **The Chairman of the CNBC has briefed the members of the Committee (including his written report), providing them with a report on the works of the 17th NEC Forum (2011) during which Ethics and ICT was the focus of the meeting.**
- **All EU publications on Ethics and ICT are made available to all members of the Committee, mainly in electronic form and through our website.**

Conclusions

- **It is evident that in the last decade more and more Cypriots are using the internet, reaching more than half of the population in 2011, and of those using it 58.9% are participating in social networks;**
- **It is also evident that 100% of the population has access to Television and 36% of the households have “cable” TV, whilst 94% of Cypriots have mobile phones (gadgets)**
- **Adequate progress has been made in terms of personal data protection, cyber crime, electronic mail (access and use) and in the regulation of the radiotelevision sector.**

Conclusions (2)

- **There is little, if any, specific work on ICT and Ethics by the CNBC.**
- **There is lack of information on the use of internet in relation to health/medical care and the seeking of this type of services from the internet.**
- **Government regulation on medicines, genetic testing and body imaging examinations purchased through the internet is lacking.**
- **The recently published Opinion No. 26 on Ethics of Information and Communication Technologies by the EC on Research & Innovation could be very useful in progressing Ethics, Bioethics and ICT in Cyprus.**

Challenges

- **The rapidly expanding utilization of internet among the population of Cyprus is open to commercial pathways but is not at present protected by ethical and bioethical considerations.**
- **This is particularly true for the individual health/medical care sought at the internet, where risks, in an uncontrolled by ethics environment, can possibly threaten the physical, mental and social welfare of the users, including unnecessary financial waste.**
- **The challenge of Ethics and ICT is enormous but necessary to face the expanding technologies, in an era where ICT is at our fingertips anywhere and anytime.**
- **The CNBC has significant work on ICT and ethics to accomplish, mainly on Bioethics.**