

Busta n. 4

- **Definire il concetto di rapporto statistico e le sue declinazioni. Descrivere il processo di costruzione di un rapporto statistico efficace per il monitoraggio di un fenomeno nel tempo**
- **Illustrare i vincoli di integrità nei database relazionali**
- **Come è stato modificato il ruolo dei Dipartimenti e delle Facoltà a seguito della riforma Gelmini?**

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TRACCIA 4

SOFT SKILLS

Domanda n. 4

In una situazione di scarsità di risorse nell'espletamento delle proprie funzioni, che strategie possono essere poste in essere per massimizzare efficacia ed efficienza dell'azione amministrativa?

Part II Case-scenario perspectives

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TRACCIA 1 The interplay between law and technology, or the RoboLaw project in context

ERICA PALMERINI

1. The RoboLaw project, an ongoing research

The RoboLaw project – whose full title is *Regulating Emerging Robotic Technologies in Europe: Robotics Facing Law and Ethics* – intends to investigate the ways in which emerging technologies in the field of bio-robotics have a bearing on the national and European legal systems, challenging traditional legal categories and qualifications, posing risks to fundamental rights and freedoms that have to be considered, and more generally demanding a regulatory ground on which they can be developed and eventually launched.¹

Building on the perception of a pressing need for a legal framework to accompany the development of robotic technologies, the aim of the research is to outline a comprehensive analysis of the current state-of-the-art of regulation pertaining to robotics in different legal systems, in order to understand whether new regulation is needed or whether the problems posed by robotic technologies can be handled within the framework of existing laws.

Robotics is a wide and multi-faceted domain, which crosses boundaries between disciplines and encompasses biotechnology, nanotechnology, and neuro-technology. The ambition to achieve a thorough overview of the legal implications of robotics therefore

¹ The project is funded within the 7th FP (Grant Agreement n. 289092), began in March 2012 and will last for 24 months. The research is carried out by a consortium of four partners from various institutions and with different backgrounds and expertise: the Dripolis Institute and the Biorobotics Institute of the Scuola Superiore Sant'Anna in Pisa, the Tilburg Institute for Law, Technology and Society (TILTS) of Tilburg University, the School of Systems Engineering of the University of Reading, and the Department of Philosophy of Humboldt University of Berlin.

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TRACCIA 2

ABILITA' INFORMATICHE

Domanda n. 2

Il candidato, partendo dalla tabella Excel fornita, utilizzi la funzione "conta se" per determinare la numerosità rispetto alla fascia, dei singoli docenti

Busta n. 1

- **Nel campo della valutazione e del monitoraggio periodico, gli indicatori giocano un ruolo fondamentale per la misurazione di fenomeni complessi. Essi forniscono informazioni sintetiche utili per prendere decisioni basate su evidenze empiriche. Definire indicatori semplici ed indicatori complessi, illustrandone vantaggi e svantaggi.**
- **Illustrare il concetto di ereditarietà multipla in Python, anche attraverso uno spezzone di codice**
- **Quali sono i principali obiettivi della Legge Gelmini (L. 240/2010) per l'università?**

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TRACCIA 5

SOFT SKILLS

Domanda n. 5

- Nel supporto alla predisposizione di un progetto di ricerca in materia ambientale, su scala regionale, quali sono i possibili stakeholders da coinvolgere nelle differenti attività da porre in essere?

TRACCIA 3

ABILITA' INFORMATICA

Domanda n. 3

Il candidato, partendo dalla tabella Excel fornita, produca un grafico che rappresenti la variabile "fascia" dei docenti

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Medical guidelines between soft INGESE law and hard law

Luca Nocco

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1. Introductory remarks: scientific evolution and the “litigation explosion”

The “litigation explosion” phenomenon,¹ which characterizes all contemporary Western countries, above all in the field of personal injuries and, particularly, in healthcare liability (the field to which we will limit this article), is a fact that is so well known and explored by legal scholarship that it does not need to be further described here.

The reasons for this ‘explosion’, which are substantially common to all legal systems, are to be found in the evolution that occurred in medical science during the twentieth century.²

Firstly, improved medical therapies are today much more effective than one century ago, but proportionally such improvement increases the concept of ‘damage’ as well.³

Yet, today a doctor who negligently fails to recognize a disease produces much greater damages than was the case decades ago, as the therapies now available make it possible to defeat disease, while in the past they had no such effect. Consequently, while in the past a misdiagnosis, for instance of a tumour, at the worst would have reduced the patient’s life expectancy by a few months (or perhaps would have produced no damage at all, since the patient would have died anyway), now the same error produces a tangible loss of chance of survival.

¹ See for this expression, among others, W.K. Olson, *The Litigation Explosion: What Happened When America Unleashed the Lawsuit* (New York: Truman Talley Books-Dutton, 1991).

² See for an outline S.D. Sugarman, ‘A Century of Change in Personal Injury Law’, (2000) 88 *California Law Review* 2403-2436.

³ Cf. M. Zana, *Responsabilità medica e tutela del paziente* (Milano: Giuffrè, 1993), 5 f.

Busta n. 2

- **Definire un numero indice, illustrando i passaggi per costruire un indice a base fissa. Illustrare la differenza tra numeri indici a base fissa e numeri indici a base mobile e, considerando la variazione nel tempo delle spese sostenute da uno studente universitario fuori sede, illustrare vantaggi e svantaggi.**
- **Illustrare la modalità di gestione delle eccezioni in Python**
- **In cosa consiste la distinzione tra “funzioni di indirizzo” e “funzioni di gestione” introdotta dalla Legge 240/2010?**

NON ESTRATTA

Busta n. 3

- In che modo le scelte di *preprocessing* possono influenzare l'efficacia di una *sentiment analysis*, soprattutto in presenza di linguaggio complesso come sarcasmo o negazioni?
- Illustrare brevemente le tre fasi di progettazione concettuale, progettazione logica e progettazione fisica di un database relazionale
- Quali modifiche ha introdotto la Legge Gelmini nel reclutamento del personale docente e ricercatore?

Non ESTRATTA

Busta n. 5

- Qual è il ruolo del *preprocessing* nell'analisi del linguaggio naturale e perché è importante adattarlo al tipo di testo e al contesto d'uso?
- Illustrare come vengono implementate le relazioni di tipo uno a uno, uno a molti e molti a molti nei database relazionali
- Quali sono le implicazioni della Legge Gelmini per la trasparenza amministrativa e la valutazione delle performance?

NON ESTRATTA

TRACCIA 5

ABILITA' INFORMATICHE

Domanda n. 5

Il candidato, utilizzando l'applicativo Word e il file fornito, formatti la pagina in modo ritenuto idoneo; inserisca una tabella di 5 righe e 6 colonne con i relativi bordi

Non ESTRATTA

TRACCIA 1

ABIUTA' INFORMATICHE

Domanda n. 1

Il candidato, partendo dalla tabella Excel fornita, estragga dalla stessa le seguenti informazioni, ordinandole in modo crescente rispetto al :

- Genere
- Servizio prestato in altro ateneo
- Fascia

NON ESTRATTA

Domanda n. 4

Il candidato, utilizzando l'applicativo Word e il file fornito, formatti coi relativi stili il testo e crei il relativo sommario automatico.

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Non Estratta

TRACCIA 2

SOFT SKILLS

Domanda n. 2

Un tuo collaboratore ha difficoltà nel raggiungimento degli obbiettivi a lui assegnati. Con quali strategie potresti cercare di intervenire per risolvere il problema?

NON

ESTARLA

TRACCIA 1
SOFT SKILLS

Domanda n. 1

Si crea una situazione di tensione tra due collaboratori diretti per lo svolgimento di alcune mansioni all'interno dell'ufficio. Quali azioni si potrebbero porre in essere per ristabilire un clima lavorativo positivo?

non estratta

TRACCIA 3
SOFT SKILLS

Domanda n. 3

Quali indicatori potrebbero essere impiegati nel monitoraggio dei propri processi di lavoro?

non estratta

Technology and regulation: a two-way discourse

Stefano Rodotà

NON FESTA STA

The best way to approach this very difficult issue is to analyse and disaggregate it in five specific points.

1. First of all I would like to have a look at some general attitudes of the legal scholars, starting from what could be called the French model of the '*droit saisi par...*' – the law seized by photography, biology, computer and so on (and also by the globalisation, moral, collective).¹ We can have two interpretations of this model: one reflecting Martin Heidegger's view on the impact of the *techné*, a power we cannot resist, shaping the world, so producing, according to the wording of Michel Villey, "[l]'ablation de la cause finale du droit"² – the removal of law's final end. The other interpretation, at the opposite, implies that law must resist the technology if and when it challenges the same anthropology of human beings, so defending also the very nature and the final end of the law itself.

It is not a simply theoretical point of view. If we take into account, for instance, the judgment of the European Court of Justice of 18 October 2011,³ forbidding the patentability of the procedures involving embryonic stem cells on the ground that these cells must be defined as a human embryo, we can easily discover that this extensive interpretation reflects precisely the idea that law must protect the 'human' everywhere there is a possibility to recognise it. Is the two-way approach at risk of becoming a one-way discourse?

¹ Cf. B. Edelman, *Le droit saisi par la photographie* (Paris: Maspéro, 1973); C. Labrousse-Riou, *Le droit saisi par la biologie. Des juristes au laboratoire* (Paris: Librairie Générale de Droit et Jurisprudence, 1996); A. Morand, *Le droit saisi par la mondialisation* (Bruxelles: Bruylant, 2001).

² M. Villey, *Philosophie du droit* (Paris: Dalloz, 2002), 133 ff.

³ See Case 57813/00, *S.H. and Others v Austria*, available at: <<http://hudoc.echr.coe.int/sites/fra/pages/search.aspx?i=001-107325>>.

TRACCIA 3

INGLESE

New foundations of transnational private regulation

Fabrizio Cafaggi

NON ESISTE

1. Introduction

Transnational Private Regulation (TPR) constitutes a new body of rules, practices and processes, created primarily by private actors, firms, NGOs, independent experts like technical standard-setters and epistemic communities, either: exercising autonomous regulatory power or implementing delegated power, conferred by international law or by national legislation.

Its recent growth reflects (A) a reallocation of regulatory power from the domestic to the global sphere and (B) a redistribution between public and private regulators. When in place, TPR produces strong distributive effects both among private actors and between them and nation states. It differs both from global public regulation and from conventional forms of private rule-making identifiable with merchant law. The main differences concern both actors and effects.

TPR differs from international regulation primarily because rule-making is not based on states' legislation. It is rather centred around private actors, interplaying with international organizations (IO) and intergovernmental organizations (IGO). This is not to say that states do not take part in and are not affected by TPR. TPR emphasises to a greater extent the role of the state as a rule-taker as opposed to a rule maker.¹ It produces direct effects on participants to the regime without the need for states' legislative intermediation. However, it still lacks a

* This paper is a reprint of the EUI (European University Institute) RSCAS (Robert Schuman Centre for Advanced Studies) Working Paper 53/2010, Private Regulation Series-04, available at <<http://cadmus.eui.eu/handle/1814/15284>>. The editors wish to thank the author for his kind permission to republish the paper.

¹ For this distinction and its implications see J. Braithwaite, *Regulatory Capitalism* (Cheltenham: Edward Elgar, 2008).

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