

**Abstracts and Tables of Contents**

## **Jurisprudential Discernment and Protection Path of Personal Biological Information in the Context of Metaverse**

Ruwen Pei\*

**Abstract:** Metaverse is an immersive holographic virtual society created with the help of digital technology, the realisation of which needs to rely on immersive technological devices such as Augmented Reality (AR) and Virtual Reality (VR) to obtain the dynamics of the user, and in the process needs to collect a large number of user's physical characteristics data, gestures, eye position information and other broadly-defined "personal bio-information". Currently, China's Personal Information Protection Law does not have a clear definition of "personal biological information" in the broad sense, and only lists "personal biometric information" as one of the seven types of "special personal sensitive information". It only lists "personal biometric information" as one of the seven cases of "special personal sensitive information". Taking into account the risks of technological neutrality, platform management, transnational use and decentralisation of personal biometric information in the meta-universe, the legal concept of "personal biometric information" should be broadened to include "identifiable" in its conceptual scope, in order to respond to the broad connotation of personal biometric information. The legal concept of "personal biometric information" should be broadened to include "identifiable" in order to respond to the broader meaning of personal biometric information. In addition, it is also necessary to establish a decentralised authentication system, improve the "My Data" data model, and strengthen the complementarity between code and law, in order to build a more comprehensive and effective protection mechanism for personal biometric information, to ensure that personal privacy is not infringed upon while the technology develops, and to build a safe, just and orderly meta-universe environment.

**Keywords:** Metaverse, Personal Bio-Information, Sensitive Personal Information, Indirect Identification, Decentralised Identity

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## A Study of Cognitive Justice Issues in Big Data Mining Behaviour

Shilun Zhou\*

**Abstract:** With the emergence of the big data era, questions about the legitimacy of algorithmic technologies have arisen. Distinguished from algorithmic justice and data justice, cognitive justice takes the perspective of the cognitive subject and has legal significance, requiring the cognitive level of the cognitive subject to match the credibility of the cognitive object. In practice, there is a natural presumption of the probative power of evidence obtained by big data mining, and the standard of proof is difficult to control the judge's mental evidence. This is due to the big data mining based on the correlation of thinking impacts the cognitive inertia of people, the interpretation of the right to the algorithm, reducing the level of cognition, the opacity of the black box of the algorithm and difficult to test leads to the cognitive object should not have been given too much credibility, the algorithmic discrimination leads to the difficulty of the process of correcting the matching of the two. There is a need to return to cognitive justice, towards the rule of law rather than the "rule of law", by bringing inner certainty in line with the standard of conviction, biased algorithmic information should play only a reinforcing role, disclosure of the information obtained from big data mining in the reading of the defense case file and breaking the shackles of the causal logic of mutual corroboration.

**Keywords:** Big Data Mining, Power of Evidence, Standard of Proof, Cognitive Justice, Rule of Law

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## **A Review of the U.S.-China Science and Technology Cooperation Agreement and Its Prospect--Based on the Perspective of Game Theory**

Haopeng Wang & Feifan Hu\*

**Abstract:** The signing process and development of the US-China Science and Technology Cooperation Agreement (US-China S&T Cooperation Agreement) explain the reasons for the signing of the agreement and the considerations for maintaining the bilateral S&T cooperation relationship between China and the US, and deeply reveals the economic and political games behind the S&T cooperation relationship between the two countries. At this stage, the adjustment of the U.S. strategic perception of China and its tendency to securitize science and technology issues have led to the renewal crisis of the US-China S&T Cooperation Agreement, and its future direction has become an issue of particular concern to all sectors in the U.S. and China. Game theory provides an effective analytical framework for the strategic transformation of Sino-US S&T relations. The Stag Hunt Game Model reveals the way forward for cooperation between the two sides in the case of weak US S&T decoupling from China, while the Repeated Prisoner's Dilemma Game Model points out that the establishment of long-term cooperation and mutual trust is the key to achieving a win-win situation for both China and the US. China and the United States should strive to eliminate differences, build a new type of relationship where cooperation and competition coexist, avoid zero-sum games, and jointly promote scientific and technological progress and global development.

**Keywords:** Sino-US S&T Cooperation Agreement; Sino-US S&T Relationship; Stag Hunt Game; Prisoner's Dilemma Game

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## The Duty of Explanation of using Medical AI

Yujie Yang\*

**Abstract:** In the legal issues caused by medical artificial intelligence, the duty of explanation of using medical artificial intelligence urgently needs to be normatively interpreted. Medical artificial intelligence cannot be covered by the current system of explanation duties, as medical devices are not the subject of the informed consent system. However, this cannot respond to the new technological risks brought by artificial intelligence. The open framework of the explanation duties creates flexible space for disclosing the use of medical artificial intelligence, and the diverse foundations of technological level, legal norms, and medical practice further establish the necessity and importance of this disclosure. The duty to explain medical artificial intelligence at the current stage should adopt a mixed standard of the reasonable patient standard and the subjective patient standard, excluding the reasonable doctor standard, and should be concise in terms of degree, taking into account the public's awareness level of medical artificial intelligence. The content of the duty to explain medical artificial intelligence is derived from the "standard risk-benefit-disclosure" and should include four basic pieces of information: the level of involvement of artificial intelligence in medical decision-making, inherent risks, expected benefits, and alternative measures, combined with the exploration of the issue of medical decision-making authority.

**Keywords:** Medical Artificial Intelligence, Informed Consent, the Duty of Explanation, Automated Decision-Making

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## Research on Competitive Compliance System based on Lawler-Porter Comprehensive Incentive Model

Zhuoyuan Zhang \*

**Abstract:** In the field of competitive compliance, the widespread phenomenon of “deterrence trap” reflects the inherent defects of China's traditional simple deterrence. In view of this, a set of incentive mechanism that can equivalently change the external regulation into the compliance consciousness of enterprises is essential. In the process of introducing Lawler-Porter Comprehensive Incentive Model into the field of China's competition compliance system, achieving “job performance” is the basic goal of the incentive mechanism, legislation, law enforcement and justice are the three main promotion paths in law. The application of legislative measures such as strict liability and taking compliance as a legal sentencing circumstance can stimulate the compliance efforts of enterprises from the external environment. Law enforcement means such as compliance risk prompt and leniency policy can promote the construction of enterprise compliance system in terms of afterwards reward, and the comprehensive judicial concept will further enhance the sense of fairness of enterprises. Through a complete cycle of competitive compliance incentive mechanism and with the help of advanced experience in compliance from overseas enterprises, we can improve the compliance participation and enthusiasm of enterprises from the root, thus offering a reference path for promoting the continuous improvement of China's competitive compliance system.

**Key Words:** Competition Compliance, Deterrence Trap, Lawler-Porter Comprehensive Incentive Model, Overseas Experience, Circulation System

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## **The Interpretation and Development of International Human Rights Law by the International Court of Justice**

Gentian Zyberi; trans., by Hao Zhang\*

**Abstract:** This article uses an institutional approach when discussing the role of the ICJ within the context of international adjudication and enforcement of human rights, as well as its contribution to the interpretation and development of key human rights rules and principles. As one of the main UN organs and its principal judicial organ, the ICJ enjoys a somewhat special position as first among equals. The Court's contribution to the interpretation and development of human rights can be seen from three aspects. Firstly, from the procedural aspect, the Court furthered the justiciability of human rights. Secondly, from the substantial aspect, the Court has dealt not only with the right to self-determination within the decolonisation context and the scope of human rights protection under the convention, but also with the territorial scope of human rights treaties' obligations, aspects of attribution of State responsibility and issues concerning reparations for internationally wrongful acts, which lays down standards of conduct for States, international organisations and their organs, other legal entities and even individuals. Thirdly, from the institutional aspect, the ICJ ensures the independence and inviolability of UN human rights rapporteurs, the constructive interpretation of the functions of the General Assembly and the Security Council in matters of international peace and security and their monitoring of compliance with international human rights obligations. However, several cases have highlighted the jurisdictional gaps and other obstacles to litigating human rights cases before the Court. These cases have also highlighted the Court's guarded position on certain controversial issues under international law. It shows that the limitations to the Court's potential impact on the enforcement of fundamental human rights.

**Keywords:** International Court of Justice, International Human Rights Law, International Adjudication Mechanisms, General Jurisdiction

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## Compliance & Enforcement in International Law: Achieving Global Uniformity in Aviation Safety

Paul Stephen Dempsey; trans., by Leiyin Wang\*

**Abstract:** Law without compliance and enforcement is like poetry - it is pleasing to the ear, but has little to do with the practical world in which we live. The study of efforts to achieve uniformity in international norms and compliance with international legal obligations reveals mixed success, even in areas where there is widespread consensus for the need to have international harmony. Given the inherent sovereignty of states, the heterogeneous levels of economic ability, and the diversity of political priorities, securing compliance with international obligations is rarely an effortless task.

This article addresses legal norms governing international aviation safety, as well as both unilateral and multilateral efforts to achieve state compliance with those international legal obligations. Commercial international aviation provides a useful case study of how the world community seeks to achieve mutual self-interest by securing global harmony in law. The interplay between conventional international law, quasi-legal standards promulgated by international organizations, and national laws, regulations, and procedures offers insights as to how complex international enterprises, such as commercial aviation, play on the world stage. In 1944, the world community acknowledged the need to achieve safety in international aviation through uniformity in law by establishing an organization to govern international aviation, conferring upon it quasi-legislative power to prescribe standards governing international aviation safety, and obliging member states to implement these standards through their domestic laws. Despite the efforts of major aviation nations and international organizations, those goals are only sluggishly being achieved. Thus, aviation safety can serve as a case study to inquire into the ability and willingness, on the one hand, or inability and unwillingness, on the other, of states to conform to their international obligations and the means by which they can be encouraged, or coerced, to comply. This inquiry is important for another less theoretical and more practical reason. Safety and security are two sides of the same coin. The regulation of both is designed to avoid injuries to persons and property, and the deprivation of man's most valuable attribute - life. Yet the two are quite different, as well. Safety regulation focuses on preventing accidental harm. Security regulation focuses on preventing intentional harm. Like the common law difference between fault-based negligence and intentional torts, the latter involves more culpability than the former, and is deterred by more serious penalties. Since the tragic events of September 11, 2001, security has become a paramount concern in international aviation community. Yet a passenger is ten times more likely to lose his life in an aviation safety-related accident than in an aviation terrorist event. Hence, the study of aviation safety is of far more practical importance than the more emotionally driven study of aviation security. Safety must be among the highest priorities in commercial aviation. All statistical evidence indicates that international aviation has become decidedly safer in recent decades. Though much of that positive result can be attributed to improvements in technology, much can also be attributed to improvements in the law. It is the latter subject that is the focus of this article.

**Key Words:** Aviation Industry, International Civil Aviation, Aviation Safety, International Law, Aviation Safety Law, ICAO, Chicago Convention, Commercial Aviation, SARPs, CASA, US Domestic Law, National Laws, National Regulations, Procedures

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