The Common Heritage of Mankind

From the Law of the Sea to the Human Genome and Cyberspace

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Abstract

Since Arvid Pardo addressed the UN General Assembly in 1967 and proposed to declare the deep seabed and ocean floor the common heritage of mankind, the need has been felt to adapt the concept of common heritage to the human genome and the internet. This paper is intended to demonstrate that the concept of a common heritage of mankind is the ideal jacket to fit the human genome and cyberspace as a mode of international governance in the interests of all humankind. The last part of the paper discusses Father Peter Serracino Inglott's vision for Malta as a promotional centre for Open Source systems.

KEYWORDS: *adaptation, Arvid Pardo, common heritage of mankind, cyberspace, Father Peter Serracino Inglott, human genome*

Arvid Pardo and the Race to Grab the Bounties of the Deep Seabed

The concept of the common heritage of mankind has been the subject of intense debate in international circles since November 1967, when Arvid Pardo first proposed that the bounties of the deep seabed should be protected and regulated by a new kind of regime that was as much innovative in character as it was revolutionary in its legal implications. [1] Pardo's proposal was different from the traditional schemes of sovereignty and freedom that applied to territorial sea and the high seas, respectively. The common heritage of mankind was to be a new form of common ownership – in a word, an alternative to the classical Roman Law concept of *res communis*, rather than a contemporary

1 Tullio Scovazzi, The Concept of Common Heritage of Mankind and the Resources of the Seabed Beyond the Limits of National Jurisdiction, 1-21. <http://www.iadb.org/.../Seminario_AUSPINTAL_2006_04_Scovazzi. pdf> [accessed on 20 April, 2007]

version or extension of it.[2] In fact, at a Pacem in Maribus Seminar in Rhode Island in 1970, Pardo had said:

> [...] we did not think it advisable to use the word *property* – not because I had anything against property – and I don't express any opinion as to the desirability or nondesirability of this ancient institution – but I thought it was not wise to use the word proper [...] Property is a form of power. Property as we have it from ancient Romans implies the jus utendi et abutendi (right to use and misuse). Property implies and gives excessive emphasis to just one aspect: resource exploitation and benefit therefrom.[3]

As Permanent Representative of Malta to the United Nations, Arvid Pardo presented to the world a revolutionary new idea for the international management of the natural resources of our planet Earth that was to challenge the very foundations of economic thinking and international law.[4] Addressing the UN's General Assembly, Pardo called for the establishment of some form of international management of the seabed and ocean floor that were beyond national jurisdiction.[5] Pardo was concerned that the world's seabeds – and much of the ocean floor – were subject to exploitation by those countries that had the technology to do so.[6] At the same time, those countries that did not have this technology would end up with nothing. Pardo was personally convinced that the natural resources which were to be found on the seabed and the ocean floor were so plentiful that their exploitation by the developing countries could help bridge the gap between the North and the South.[7] He believed that since estimates of the aggregate weight of manganese nodules ran into trillions of millions, the injustices of the past committed by the developed countries against the developing ones could be redressed by giving the latter their rightful share of these natural resources. To Pardo, this was a golden opportunity for mankind to use the natural resources of the planet in such a way that everyone would benefit from them. Pardo's proposal to the United Nations was that all humanity will take it upon itself to create the conditions necessary for the exploitation of the seabed and ocean floor for the benefit of all mankind, and set a precedent that would make it contingent on mankind to make the preservation of the conditions necessary for the continued existence of humanity, the primary objective of responsibility.[8]

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2 Kemal Baslar, *The Concept of the Common Heritage of Mankind in International Law* (The Hague: Martinus Nijhoff Publishers, 1998), pp. 38-39.

3 Arvid Pardo, *The Common Heritage of Mankind: Selected Papers on Oceans and World Order 1967-1974* (Malta: Malta University Press 1975), pp. x-xi.

4 Arvid Pardo, Address by Arvid Pardo to the 22nd Session of the General Assembly of the United Nations (1967), Official Records of the General Assembly, Twenty-Second Session, Agenda Item 92, Document A/6695.

5 Ibid.

6 Jack Barkenbus, *Deep Seabed Resources: Politics and Technology* (New York: Free Press, 1979), p. 33.

7 Pardo, *The Common Heritage of Mankind*, p. 2.

8 Pardo's proposal is reflected in the Declaration of the Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction,

The problem that Pardo faced was that there was no well-defined legal framework that could prevent the unfair exploitation of natural resources by the developed countries, since the high seas were still subject to the laissez faire laissez passer attitude of Grotius' *Mare Liberum*, which was instrumental in keeping the high seas free for navigation and fair trading.[9] He was sure that this ambivalent situation would lead to conflicting claims of appropriation by different countries and inevitably, there would be serious tension between the developed countries and the developing ones. Pardo was adamant that the great injustices of the past would not be repeated in the present. In the first lines of his speech, he explained to the General Assembly that:

> The dark oceans were the womb of life; from the protecting oceans life emerged. We still bear in our bodies – in our blood, in the salty bitterness of our tears – the marks of this remote past. Retracting the past, man, the present dominator of the emerged earth, is now returning to the ocean depths. His penetration of the deep could mark the beginning of the end for man and, indeed for life as we know it on this earth. It could also be a unique opportunity to lay solid foundations for a peaceful and increasingly prosperous future for all peoples.[10]

Pardo envisaged a future where the world's seabeds and the ocean floor would be exploited under international auspices for the benefit of the entirety of mankind rather than by a few countries for the benefit of the few.[11] For these reasons, Pardo employed the phrase common heritage of mankind, which implied that no state could appropriate these natural resources because they belonged to all of humanity, those living and also those who still had to be born.[12]

From 'Legacy' to 'Common Heritage' of Mankind

The notion that the deep sea and ocean resources were the legacy of humanity had already been expressed by American president Lyndon Johnson in 1966. Pardo's idea of a common heritage of mankind was, however, diametrically opposed to that of President Johnson. In 1966, at the inauguration of the

adopted by the General Assembly of the United Nations at its 25th Session on 17 December 1970.

9 Hugo Grotius was a Dutch legal scholar whose 1609 book, "Mare Liberum" promoted the idea that seas should be free for the innocent use and benefit of all. He was appointed by the Dutch East India Company (VOC) to defend its right to do trade with the East after the seizure, on 25 February 1603, of a richly laden Portuguese galleon by a Dutch Admiral employed by the VOC in the Straits of Malacca, as a form of protest against the decision of Spain and Portugal to exclude all foreigners from navigating the Pacific and Indian Oceans.

10 Pardo, *The Common Heritage of Mankind*, p. 2.

11 Interim Report on the United Nations and the Issue of Deep Ocean Resources, by United States Congress House Committee on Foreign Affairs Subcommittee on International Organizations, 90th Congress, First Session, 7 December 1967, p. 277.

12 Arvid Pardo was not person who coined the term 'common heritage of mankind' because it had already been used by Ambassador A. A. Cocca who was one of the prominent figures in the discussions on the common heritage of mankind and President Lyndon Johnson.

Oceanographer, Lyndon Johnson had said, to the surprise of many:

> Under no circumstances, we believe, must we ever allow the prospects of rich harvest and mineral wealth to create a new form of colonial competition among the maritime nations. We must be careful to avoid a race to grab and hold the lands under the high seas. We must ensure that the deep seas and the ocean bottom are, and remain, the legacy of all human beings.[13]

President Johnson was very much aware that the race to grab the bounties of the seabed and ocean floor had already started when in 1945 US President Harry Truman declared that the seabed of the continental shelf beneath the high seas but contiguous to the coasts of the US belonged to the US.[14] This action on the part of the Americans prompted other countries to do the same, as they too wanted their share of the natural resources to be found on the seabed and ocean floor. Proof of the existence of these resources emerged in 1873, when the Challenger expedition discovered potato-sized manganese nodules scattered across large areas of the seabed at depths of around 3,500 metres.[15] Then, in 1958, the Convention of Geneva on the Law of the Sea declared that the coastal states had the sovereign right to exploit and explore the resources of the continental shelf as long as these resources were to be found in depths of two hundred metres or less and that they were indeed exploitable. Pardo was not pleased with this chain of events because he feared that the Geneva Convention could allow a coastal state to divide the seabed and its resources with another coastal state on the opposite side of the sea. In this way, the countries that had the technological means to exploit these resources – and there were not many countries that had this technology – would have exclusive rights to these undersea resources.[16] The majority of countries, especially the developing ones, lacked this technological capability and they feared that the free exploitation sanctioned by the Geneva Convention would lead to a carve-up of the seabed and its resources which, according to oceanographers, potentially comprised the largest mineral deposit on this planet.[17] Even though these countries lacked the technology to exploit these resources, they wanted to reserve the right to do so in the future.[18]

The concept of the common heritage of mankind was finally applied to the resources of the deep seabed and ocean floor on 10 December 1982, after twenty-five years of tumultuous negotiations, when the Law of the Sea Convention (UNCLOS) was opened for signing in Montego Bay, Jamaica. Despite the con-

13 Address given by President Lyndon Johnson at the commissioning of the vessel, *U. S. NOAA Oceanographer*, July 13, 1966.

14 Ann L. Hollick, 'US Oceans Policy: The Truman Proclamations', *Virginia Journal of International Law*, 17:1 (1976), pp. 23-55.

15 Barkenbus, *Deep Seabed Resources*, p. 4.

16 Pardo, *The Common Heritage of Mankind*, p. 31.

17 Barkenbus, *Deep Seabed Resources*, p. 5.

18 Ida Ryuichi, 'Human Genome as Common Heritage of Mankind – with a Proposal', *Bioethics in Asia*, 1. 8 (1997). <http://www. eubios. info/ASIAE/BIAE59. htm> [accessed on 28 January 2000]

troversy surrounding UNCLOS, its adoption has been hailed as one of the most significant achievements for international law with the establishment of the International Seabed Authority that had legal jurisdiction to act on behalf of mankind as a whole. Unfortunately, many developed countries did not sign UNCLOS, jeopardizing, in the process, the efforts of other countries to formulate a codified Law of the Sea on the basis of the concept of the common heritage of mankind. In order to put an end to this impasse, the UN General Assembly set about modifying those provisions of UNCLOS towards which the developed countries had the strongest objections, particularly the decision-making process of the International Seabed Authority. Consequently, the UN General Assembly drafted the 1994 Implementation Agreement that was to be interpreted as a single instrument with the UNCLOS Convention. The 1994 Implementation Agreement brushed aside some of the substantive elements of the concept of common heritage of mankind as originally proposed to the UN General Assembly by Arvid Pardo. Among them was the proviso that all natural resources, living or non-living, existing beyond a 200-mile limit would be managed by international institutions so as to ensure the equitable sharing by all states of the benefits derived from the development of these resources, and in order to take into particular consideration the interests and needs of poor countries. The same fate was met by the proviso that a coastal state, within a 200-mile limit, would be obliged to make contributions for the financial benefits derived from the extension of its rights on the resources contained therein.[19] The almost universal consensus was achieved at the cost of introducing a 200-mile Exclusive Economic Zone (EEZ) that permitted countries to exercise sovereign rights over resources within this area. Ironically, this meant that UNCLOS had actually increased the sovereignty rights of countries through the introduction and implementation of the EEZ. Commenting on the significance of the concept of a common heritage of mankind in the Euro-Mediterranean context, Father Peter Serracino Inglott has noted that despite the fact that the Law of the Sea Convention was originally presented by Malta, a microstate in the middle of the Mediterranean Sea, the provisions of UNCLOS have turned out to be, in large part, totally irrelevant to the Mediterranean. A case in point is the entitlement of the 200-mile Exclusive Economic Zone, established by the 1994 Implementation Agreement that permitted countries exclusive sovereign rights over the resources within this area. There is no doubt that when the drafters of the Implementation Agreement included the 200-mile EEZ they were not thinking of the Mediterranean region, given the fact that there is no area within the region with a distance of more than 400 miles between opposite coastal countries. As things stand, much of the Mediterranean is still considered to be "high seas" in terms of international law and as a result, our fisheries continue to be legally ransacked by Korea and Japan before our very eyes. The other glaring irony, therefore, is that this was precisely the kind of situation that Arvid Pardo had wished to

19 Scovazzi, *The Concept of Common Heritage*, p. 5.

avoid when he proposed the concept of the common heritage of mankind as a basis for the international governance of the seas.[20]

Preventing Another Mare Liberum – the Human Genome

Another race – this time to grab the bounties of our DNA – was started soon after the launching of the Human Genome Project (HGP) by the US National Institutes of Health (NIH) in 1990. The people behind the HGP set themselves the goal of determining the full sequence of the 3 million chemical base pairs that made up the human DNA so as to store the information in a comprehensive database.[21] The work was completed by April 2003 and the genetic nucleotides were published on the internet along with an estimated 25,000 protein-coding genes.[22] But it immediately became clear that these oceans of data were susceptible to exploitation. In fact, as soon as the multibillion dollar effort to decipher the human genetic code got under way, the so-called Great Gene Grab began.[23] By the time the first draft of the human genome was completed, the map of the human genome was cluttered with flags marking genes that had been patented by biotech companies. As Antonio Regalado has pertinently observed, if the genome was the moon, then Neil Armstrong would have discovered that large areas of the moon had already been divided among biotech companies before he had the chance to set his foot on it and proclaim, 'one giant leap for mankind'.[24] The irony is that the first hijacker of the human genome was none other than the NIH itself which was among the first to patent the DNA sequence data, after two of its scientists discovered a technique that made it possible for them to find genes at an unprecedented speed. Although the NIH eventually withdrew its patent claims, its action triggered a race to the patent office by several countries that also filed patent applications for their own sequences. The UK was the first country to respond, followed by Japan, Germany and Switzerland – all of them participants in the HGP.[25]

A survey carried out by Kyle Jensen and Fiona Murray focussing on the

20 Peter Serracino-Inglott, Correlatives of the Common Heritage and the Present Euro-Mediterranean Context in *Serving the Rule of International Maritime Law: Essays in Honour of Professor David Joseph Attard*, ed. by Norman A. Martinez Gutierrez (New York: Routledge, 2010), pp. 176-80 (p. 177).

21 Leslie Roberts, R. John Davenport, Elizabeth Pennisi and Eliot Marshall, 'A History of the Human Genome Project', *Science*, 291:5507 (2001), 1195.

22 Final HGP papers were published in 2006. A high quality 'finished' sequence of the human genome was completed in 2003. Involved in the HGP, besides the Department of Energy and the National Institutes of Health, were several researchers at numerous colleges, universities and laboratories throughout the United States that also received funding for human genome research. Many private companies also conducted research that contributed to the success of the HGP.

23 Antonio Regalado, 'The Great Gene Grab', *Technology Review* (September/October 2000), pp. 49-50.

24 Ibid., p. 49.

25 I. J. Demaine and A. X. Fellmeth, 'Reinventing the Double Helix: A Novel and Nonobvious Reconceptualization of the Biotechnology Patent', *Standard Law Review*, 55 (2002), 303-462 (p. 328).

US has shown that nearly 20% of human genes are explicitly claimed as US Intellectual Property (IP).[26] This figure represents 4,382 of the 23,688 genes in the gene database of the National Centre for Biotechnology Information. These genes that are claimed in 4,270 patents within 3,050 patent families are owned by 1,156 different assignees, of which roughly 63% are private firms. While most of the human genome is still unpatented, there are some genes that are heavily patented such as BMP7, an osteogenic factor and CDKN2A, a tumour suppressor gene. The gene sequences in both cases are claimed in at least twenty patents, mostly directed toward diagnostic applications. The same holds for other important disease genes such as BRCA1 (breast cancer), PIK3R5 (diabetes) and LEPR (obesity).[27]

Many institutions, scientists and individuals are concerned that gene patenting is giving rise to the 'tragedy of the anti-commons' in the biotechnology industry, because it is discouraging scientists from continuing to do research on genes once they have become patented.[28] Unlike the situation that is often explained by the "tragedy of the commons" metaphor where people overuse shared resources, with the proliferation of intellectual property, an "anti-commons tragedy" is created when people are forced to underuse scarce resources because too many patent owners can block each other.[29] Take Hereditary Hemochromatosis, for example. It is an autosomal recessive disease affecting mainly people of European descent. Up to 85% of cases of Hereditary Hemochromatosis are caused by two mutations in the Hemochromatosis gene. While there were several US laboratories performing testing for mutations, as many as 30% stopped developing a genetic test or stopped testing for mutations altogether after the gene was patented. As a result, the validation of genetic testing has not proceeded as quickly as it would have if the mutations had not been patented.[30]

While the application of the patent system in the fields of biotechnology and biomedicine has seemed justifiable in the past as a way of ensuring a reasonable balance between the rights of inventors and the public interest, the granting of patents that assert rights over DNA sequences has raised special concern among individuals, scientists, national and international organizations. Most of these concerns have revolved around the idea that human DNA is of a special nature compared to the DNA of other organisms. Many are troubled by the idea that genes and their mutations can be subject to commercialization. Others are very concerned about the fact that the patent system in the field of biotechnology is in fact an impediment to the progress

26 Kyle Jensen and Fiona Murray, 'Intellectual Property Landscape of the Human Genome', *Science*, 310 (2005), 239-40.

27 Ibid.

28 Michael A. Heller and Rebecca S. Eisenberg, 'Can Patents Deter Innovation? The Anticommons in Biomedical Research', *Science*, 280 (1998), 698-701.

29 Lori Andrews, 'Genes and Patent Policy: Rethinking Intellectual Property Rights', *Nature Reviews*, 3 (2002), 803–08.

30 Brian Goldman, 'HER2 Testing: The Patent "Genee" Is Out of the Bottle', *Canadian Medical Association Journal*, 176 (2007), 1443-44 (p. 1444).

of scientific research, with tragic consequences for healthcare. These same concerns have encouraged many to propose the adoption of new legislation that would guarantee a more equitable and sustainable use of biotechnology. These concerted efforts have produced a number of notable results, including the Council of Europe Convention on Biomedicine with its related Protocol on Human Cloning, the Universal Declaration on the Human Genome and Human Rights with the related Declaration on Human Genetic Data, and the Declaration on Human Cloning.[31] The Council of Europe's Committee on Legal and Human Rights has also called on member states to change the basis of patent law with respect to rights of ownership over human tissue and genes into 'law pertaining to the common heritage of mankind'.[32]

The Universal Declaration on the Human Genome and Human Rights was adopted unanimously and by acclamation by the General Conference of UNESCO on 11th November 1997, as a result of the urgent need felt by the international community to provide itself with an international instrument more particularly focussed on the human genome. [33] While the concept of the common heritage of mankind had gradually acquired normative value under international treaty law in the terms provided by the Law of the Sea Convention, with the Universal Declaration on the Human Genome and Human Rights, the concept was adapted and extended, for the first time, to the specific nature of humankind itself.[34]

The problem is that the liberalist and market-oriented policies that made the UN modify the provisions within the Law of the Sea Convention and adopt the 1994 Implementation Agreement so as to encourage dissenting countries to come aboard and accept UNCLOS, remain the most serious obstacle towards implementing Pardo's concept to the human genome. Despite the fact that the US President Bill Clinton and the British Prime Minister Tony Blair spoke of the human genome as the 'human genetic blueprint' and acknowledged the importance of making the fundamental raw data on the hu-

31 Council of Europe Convention for the Protection of Human Rights and Dignity of the Human Being with Regard to the Application of Biology and Medicine: Convention on Human Rights and Medicine, Oviedo, 4 April 1997, CETS 164; Council of Europe Additional Protocol to the Convention for the Protection of Human Rights and Dignity of the Human Being with Regard to the Application of Biology and Medicine, on the Prohibition of Cloning Human Beings, Paris, 12 January 1998, CETS 168; Universal Declaration on the Human Genome and Human Rights, adopted by the General Conference of UNESCO at its 29th Session on 11 March 1997; International Declaration on Human Genetic Data, adopted by the General Conference of UNESCO at its 32nd Session on 16 October 2003; Declaration on Human Cloning, adopted by the General Assembly of the United Nations at its 59th Session on 8 March 2005. UNGA Resolution 59/280

32 Parliamentary Assembly of the Council of Europe Recommendation 1512 (2001) on the Protection of the Human Genome.

33 With Resolution 29C/17, entitled 'Implementation of the Universal Declaration on the Human Genome and Human Rights', the General Conference of UNESCO laid out the methods for the implementation of the Declaration.

34 'Fourth Meeting of the Legal Commission of the IBC', (Paris, 27 April 1994), in *Birth of the Universal Declaration of the Human Genome and Human Rights* (UNESCO: Division of the Ethics of Science and Technology, 1999), pp. 53-54.

man genome 'freely available to scientists everywhere', there is no political will to apply the concept of the common heritage of mankind to the human genome, as originally formulated by Arvid Pardo.[35] The main obstacle remains Pardo's idea of an international authority with legal jurisdiction to act on behalf of mankind. The same countries that opposed the institution of the International Seabed Authority are against the institution of an International Human Genome Authority or a similar international institution that would be entrusted with the management of all research on the human genome on behalf and in the interests of all mankind.

The Gold Rush for the Conquest of Cyberspace.

A third race, this time for the conquest of cyberspace, was started in the early 1990s when the US government decided to allow the commercialization of the Internet and end its support for the open architectural model that was being promoted by the pioneer engineers who were charting the Internet's future. These first engineers that were entrusted by the US government to start building the basic Internet technologies, began to develop the Internet's key software on a non-proprietary basis inspired, probably unknowingly, by the concept of common heritage of mankind. It was also the policy adopted by the first standard-setting committees such as the Internet Engineering Task Force (IETF). As a result of this open vision of the Internet, its internal architecture was constructed in such a way that all computer terminals were linked to one another, allowing anyone with access to a terminal to access and send information to other computers and users. A fundamental pioneer was J. C. R. Licklider who, in a paper published in 1960, explained his vision of a Galactic Network comprising a worldwide computer network,

> A network of such [computers] connected to one another by wide-band communication lines [which provided] the functions of present-day libraries together with anticipated advances in information storage retrieval and [other] symbiotic functions.[36]

The Internet is basically made up of four layers piled on top of each other. The first tier is the content layer through which most users interact when using search engines such as Google and when they surf the Net. This layer is supported by the application layer, which incorporates the browser software needed to surf the net and the media player software for multimedia use. The third layer is the logical one, which consists of the TCP/IP protocols that allow complete interoperability on the Internet.[37] It is this layer that permits the flow of data from one computer terminal to another, even if the computers have different operating systems or applications software. The fourth stratum

35 Bill Clinton and Tony Blair, Joint Statement by President William Clinton and Prime Minister Tony Blair of the United Kingdom (14 March 2000). <http://wwwipmall. info/hosted_ resources/ippresdocs/ippd_44. htm, 14 March> [accessed on 20 March 2006]

36 J. C. R. Licklider, 'Man-Computer Symbiosis', in *Transactions on Human Factors in Electronics*, HFE-1 (1960), 4-11.

37 Transmission Control Protocol/Internet Protocol.

is the physical layer that is made up of the actual wiring and *backbone* infrastructure that carries the data from one computer terminal to another. When the US government removed all restrictions on the use of the Internet for commerce and transferred its future growth to the private sector, it created a gold rush for the conquest of cyberspace by companies such as Microsoft, Google and Amazon. As a result of the proprietary and closed systems that commercial enterprises introduced in the Internet world, another "tragedy of the anti-commons" was generated, this time in cyberspace, as fewer intellectual resources began to be available to ordinary individuals. Digital Rights Management (DRM) technology, for example, is limiting the Creative Commons by prohibiting the sharing and distribution of legitimately bought ebooks. This proprietary technology ignores the 'fair use' and "first sale" limitations on non-digital copyright protection which, in the public interest, allow copyrighted literary works to be quoted, reproduced (but not in their entirety) lent or sold without the copyright holder's permission. Copyright management technologies are a serious obstacle to the dissemination of knowledge and are a direct consequence of the closed systems that have been adopted by the Internet industry. Precisely in order to offer an alternative to this liberalist and market-oriented policy, Richard Stallman decided to launch the Free Software Foundation, which developed an open source license known as the General Public License (GPL). Stallman's intention in starting the Free Software movement was to encourage programmers to continue to work together to make software freely available for humankind, rather than restrict its use with obstructive and counterproductive measures such as Copyright Law, patents and other exclusionary intellectual property rights. Four fundamental freedoms were at the basis of the Free Software Foundation, namely the freedom to run any program, for any purpose, the freedom to study how a program works and adapt it for one's needs, the freedom to redistribute copies so one can help one's neighbour and the freedom to improve a program and release your improvements to the public, so that all can benefit from one's work.

Father Peter Serracino Inglott and Malta's Niche in Cyberspace

Father Peter Serracino Inglott was not new to the concept of the common heritage of mankind. He was instrumental in introducing the concept of the common heritage of mankind into public discourse at the same time that Arvid Pardo was presenting his proposal to the UN General Assembly.[38] After the Law of the Sea Convention (UNCLOS), Father Peter persisted in his efforts to use the concept of the common heritage of mankind to transform international law, and was one of the main promoters of Malta's proposal to establish a Charter of the rights of future generations. The proposal was made in 1992 by Professor Guido de Marco who was, at the time, Malta's Minister for Foreign Affairs and President of the United Nations General Assembly. Included

38 *Interfaces: Essays in Philosophy and Bordering Areas in Honour of Peter Serracino Inglott*, ed. by Joe Friggieri and Salvino Busuttil (Malta: University of Malta, 1997), xii-xiii.

in the proposal that was submitted in preparation for the 1992 Rio de Janeiro 'Earth Summit' was the institution of an official Guardian to represent the interests of future generations at the United Nations and other international institutions.[39]

Serracino Inglott's latest interest in the concept of the common heritage of mankind was connected with his vision to adapt the concept to cyberspace and make Malta a promotional centre for Open Source systems. Besides the technological and economic advantages of using Open Source software, Serracino Inglott was particularly interested in the political and philosophical implications of this family of cyber-technologies that gave pivotal importance to the free dissemination of knowledge that was the most fundamental aspect of the common heritage doctrine.[40]

Father Peter perceived deep analogies between cyberspace and extraterritorial spaces such as outer space, ocean space and the icy space of Antarctica, to which the concept of common heritage of mankind has already been adapted in the past.[41] The Outer Space Treaty of 1967 proclaimed that as the moon and other celestial bodies were the 'province of all mankind,' they should not be appropriated, and all exploration and exploitation must be carried out for the benefit of all countries and for peaceful purposes.[42] The Moon Agreement of 1979, on the other hand, specifically mentions the concept of the common heritage of mankind. It was adopted by a UN General Assembly Resolution and came into effect on 11 July 1984. Article 11 of the treaty proclaims that, '(t)he moon and its natural resources are the common heritage of mankind'.[43] The Antarctic Treaty of 1959 does not, as such, declare the Antarctic region a common heritage of mankind but contains substantive elements of the common heritage principle, since its primary goal has been to ensure, in the interest of all mankind, that Antarctica will continue to be used only for peaceful purposes and that it will never become the 'scene or object of international discord'.[44]

In proposing to make Malta a centre for Open Source governance of cyberspace, Peter Serracino Inglott was inspired by Elizabeth Mann Borgese, who firmly believed that the regime Malta had proposed for ocean space was

39 A/Conf. 151/PC/WG. III/L. 8/Rev. 1/Add. 2, 21 February 1992.

40 Peter Serracino Inglott, 'Malta's Niche in Cyberspace', in *Into the Future: Socio-Economic or Security Challenges for Malta, Report Published by The Today Public Policy Institute*, November 2011. <http://tppi.org.mt/cms/images/reports/into%20the%20future%20dec%202011. pdf> [accessed on 25 January 2012].

41 Peter Serracino Inglott, Democracy and Cyberspace, *The Sunday Times*, 4 September 2011. <http://www.timesofmalta.com/articles/view/20110904/opinion/Democracy-and-cyberspace. 383167> [accessed on 25 June 2012].

42 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, adopted by the General Assembly of the United Nations at its 21st Session on 19 December 1966. UNGA Res. 2222(XXI).

43 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, adopted by the General Assembly of the United Nations at its 34th Session on 14 December 1979. UNGA Res. 34/68.

44 Antarctic Treaty (1959). Antarctic Connection. <http://www.antarcticconnection.com/antarctic/treaty/index. shtml> [accessed on 20 January 2006]

likely to serve as a laboratory-model for later application on land.[45] Still, Serracino Inglott had always been reluctant to equate cyberspace with territorial space, which has been legitimized in the past on the strength of claims to sovereignty and aggressive nationalism. He perceived the concept of the common heritage of mankind as primarily a unifying force that transcends national boundaries and encourages strong international solidarity. It is precisely for these reasons that Serracino Inglott perceived the concept of the common heritage of mankind as the ideal jacket for the international governance of cyberspace – which, essentially, and unlike land territories, remains a legal vacuum – in the interests of all mankind, and exclusively for peaceful purposes.[46]

The publication of a White Paper, in 2010, titled 'Open Source Vision – Nurturing the Proliferation of Open Source Software', by the Malta Information Technology Agency was, to Serracino Inglott, the most important policy document that the Government has published since it announced its intention to apply for full membership of the European Union.[47] He believed that since knowledge was the most important element of the concept of a common heritage of mankind, and that the generation of a Creative Commons was to be the prime goal of the governance of cyberspace, the legal implications of making cyberspace a common heritage of mankind would have far more reaching consequences than the classification and management of seabed resources. Serracino Inglott's hope was that, '[...] the island that produced the legal minds who were able to develop the concepts of the Common Heritage of Humankind should be able to contribute to the transformation of the concept of intellectual property'.[48] One hopes and trusts that time may prove him right.

45 Serracino Inglott, *Democracy and Cyberspace*.
46 Serracino Inglott, *Democracy*.
47 White Paper, 'Open Source Vision – Nurturing the Proliferation of Open Source Software', Malta Information Technology Agency, 2010. <https://www.mita.gov.mt/MediaCenter/PDFs/1_Open%20Source%20Vision%20-%20White%20Paper%20(NISCO). pdf> [accessed on 25 May 2011].
48 Serracino Inglott, *Democracy*.