



**KEI Proposal: A WTO Agreement on  
the Supply of Knowledge as a Global Public Good**  
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**Table of Contents**

Introduction.....1

Global Public Knowledge Goods .....1

The “Free Rider”/Collective Action Problem.....3

The World Trade Organization.....4

A Multilateral Agreement on the Supply of Global Public Goods.....5

Global Norms or Heterogeneous Offers.....5

Treaties, agreements and negotiations that create norms for strengthening enclosure and increasing intellectual property rights .....5

Recent efforts to create norms to increase access to protected knowledge, and enhance the supply of public goods.....6

Global voluntary support for public goods.....9

WTO role in norm-setting for knowledge as a global public good.....9

A WTO agreement for voluntary-but-binding commitments to enhance the supply of heterogeneous global public goods.....9

Issues Concerning the Design of a WTO Agreement on Knowledge as Global Public Good.....10

What would qualify?.....10

Sui generis offers.....11

Standardized offers.....11

What can go wrong?.....13

Conclusion, Research Agenda, and Next Steps.....14

Research Agenda.....15

Next Steps.....15

**INTRODUCTION**

This is a proposal for a trade framework and a multilateral agreement that would involve negotiations and binding commitments to support the creation of and access to certain public goods. In particular, the provision of global public goods involving knowledge would be enhanced by the creation of an agreement within the WTO that would feature binding commitments by governments to undertake actions to increase the supply of a heterogeneous class of public goods, operating in a fashion analogous to binding commitments to reduce tariffs and subsidies or to liberalize trade in services.

**GLOBAL PUBLIC KNOWLEDGE GOODS**

Markets for privately owned and consumed goods are ubiquitous, and often quite efficient in terms of making claims on incomes and stimulating consumption. Judging from various environmental and health challenges, perhaps in some cases such markets are even too efficient in stimulating consumption.<sup>1</sup> There are also goods that are essentially social, and which are not characterized as being

<sup>1</sup> “Who would have imagined that these problems, that some people called 'luxury items' on the agenda of wealthy



intended for private consumption only. These are sometimes referred to as “public goods,” although considerable confusion is often associated with the exact definitions of such goods.

Some of these social or public goods are financed and supplied by the private sector, while others will not be supplied without action by one or more governments.

Fifty years ago, John Kenneth Galbraith's 1958 book, *the Affluent Society*, stimulated a public debate on the over-supply of private goods of dubious value, the consumption of which was induced by questionable marketing practices,<sup>2</sup> and the scarcity and under-supply of public goods. Concerns about the under-supply of public goods continue to this day.<sup>3</sup>

Galbraith and many others have defined public goods quite broadly, calling attention to the need for public investment in education, reducing poverty, and in other areas where collective action is needed to address society's needs. Within the economics profession, public goods are sometimes defined more narrowly, as only goods that are both non-rival and non-excludable in terms of consumption. Some have distinguished between global public goods and regional or local public goods.<sup>4</sup> In a 1995 paper, Joseph Stiglitz identified five global public goods: international

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nations, would become the burning health issues, worldwide, during this first decade of the 21st century? . . . As the demand for energy and transportation increases, suffocating urban air and the consequences of greenhouse gas emissions are issues of urgent global concern. Obesity, which has reached epidemic proportions in Europe, is now a global problem. No region is spared.” Dr Margaret Chan, Director-General of the World Health Organization, Address to the Regional Committee for Europe, Regional Committee for Europe, fifty-seventh session, Belgrade, Serbia, 18 September 2007.

2 Galbraith, *the Affluent Society*, 1958, elaborating in some ways on the earlier work of Veblen, *The Theory of the Leisure Class: an Economic Study of Institutions*, 1912.

3 Paul Samuelson, “The Pure Theory of Public Expenditures,” *Review of Economics and Statistics*, 36(4): 350-356, 1954; Musgrave, R.A., *Public Finance in a Democratic Society*, Sussex 1986: 41-58; Joseph Stiglitz, *Economics of the Public Sector*, New York: W.W. Norton, 1986; Richard Stallman, “Why Software Should Be Free,” April 24, 1992; Partha Dasgupta and Paul A. David, “Toward a new economics of science,” *Policy Research*, Vol. 23, 1994, 487-521; Inge Kaul, “What is a Public Good? Global Public Goods: A New Way to Balance the World's Books,” *Le Monde diplomatique*, June 2000; Yochai Benkler, “Coase’s Penguin, or, Linux and the Nature of the Firm,” *Yale Law Journal*, 2002, 112(3): 369-446; Smith, R.D.; Beaglehole, R.; Woodward, D.; Drager, N., *Global Public Goods for Health: a Health Economic and Public Health Perspective*, Oxford University Press; 2003; James Boyle, “The Second Enclosure Movement and the Construction of the Public Domain,” *66 Law & Contemp. Probs.* 33, Winter/Spring 2003, page 33; Pam Samuelson, “Mapping the Digital Public Domain: Threats and Opportunities,” *66 Law & Contemp. Probs.* 147, Winter/Spring 2003, page 147; Keith E. Maskus and Jerome H. Reichman, “The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods,” *Journal of International Economic Law*, 2004 7(2):279-320; Paul David, “The Economic Logic of ‘Open Science’ and the Balance between Private Property Rights and the Public Domain in Scientific Data and Information: A Primer,” Stanford Institute for Economic Policy Research, March 17, 2003; James Love and Tim Hubbard, “Paying for Public Goods,” in *Code: Collaborative Ownership and the Digital Economy*, edited by Rishab Aiyer Ghosh, MIT Press, 2005; Peter Drahos, “the Regulation of Public Goods,” included in *International Public Goods and Transfer of Technology Under a Globalized Intellectual Property Regime*, Keith Eugene Maskus, Jerome H. Reichman, Editors, Cambridge University Press, 2005; *Open Access and the Public Domain in Digital Data and Information for Science: Proceedings of an International Symposium*, Julie M. Esanu and Paul F. Uhlir, Editors, U.S. National Committee for CODATA, National Research Council, National Academies Press, 2004; James Bessen, “Open Source Software: Free Provision of Complex Public Goods,” in *the Economics of Open Source Software Development*, Jürgen Bitzer and Philipp J. H. Schröder, eds., 2006; Jon Rynn, “Mr. Clinton Goes to the Public-Goods Markets: The Promise of Governmental Buyers' Clubs,” *Grist*, September 19, 2007.

4 Joseph Stiglitz, “Theory of Local Public Goods,” in *the Economics of Public Services*, M.S. Feldstein and R.P.



economic stability, international security (political stability), the international environment, international humanitarian assistance, and knowledge.<sup>5</sup> This paper will present a mechanism to address the under-supply of the last item, knowledge, as a global public good.

### THE “FREE RIDER”/COLLECTIVE ACTION PROBLEM

Many types of knowledge can be created and be managed as either a public or a private good.

Patents, copyrights, trade secrets, contracts, *sui generis* rights in pharmaceutical test data, and a plethora of other legal instruments are used to assign property rights to knowledge goods, including the right to exclude access or use. Indeed, in recent decades, an influential and controversial enclosure movement has vastly expanded the boundaries of what knowledge can be “owned,” lengthened the legal terms of protection and enhanced the legal rights granted to owners of the collection of legal rights referred to as “intellectual property.”

However, for some knowledge goods it is completely or largely impossible to exclude everyone from having access or, even where this is possible, the costs of exclusion may be high or socially unacceptable. In such cases, both private sector and government policy-makers use or encourage modes of production and financial and management systems that make knowledge goods freely available to everyone.

Goods and services that should be freely available to everyone are often not free to provide. Because end-users are not paying directly, there are disputes over the true value of the goods, and a problem of free riding.

In the realm of public goods involving knowledge, the role of the private sector is quite important and growing, in terms of actions of individuals or groups of individuals acting through non-profit or for-profit organizations. This includes not only the important role of private philanthropy, but also organized projects like Wikipedia, countless standards-making bodies including the Internet Engineering Task Force (IETF) or the World Wide Web Consortium (W3C) and the free software and open scholarly journal movements, to mention only a small number of the various initiatives to constantly expand the supply of knowledge as a public good.

In important cases, governments directly finance such goods, or create subsidies, rewards or incentives that benefit and encourage private parties providing knowledge as a public good.

Private parties supplying knowledge as a public good clearly face a free rider/collective action problem. The benefits of the goods are enjoyed by many, and no one has an obligation (or, in some cases, no practical means) to contribute to the costs of provisioning the good.

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Inman (eds.), MacMillan Publishing Company, 1977: 274-333; *Global Public Goods: International Cooperation in the 21st Century*, Edited by Inge Kaul, Isabelle Grunberg and Marc Stern, New York: Oxford University Press, 1999; Inge Kaul, “What is a Public Good? Global Public Goods: A New Way to Balance the World’s Books,” *Le Monde diplomatique*, June 2000; *The Economics of Open Source Software Development*, Elsevier B. V., 2006; *Supporting Provision of Regional Public Goods in the Asia and Pacific Region*, World Bank, April 2007.

5 Joseph Stiglitz, “The Theory of International Public Goods and the Architecture of International Organizations,” United Nations Background Paper 7, Department for Economic and Social Information and Policy Analysis, July 1995.



Governments can only partly overcome this problem by collecting taxes and providing direct funding or subsidies for public goods, precisely because the benefits are often global, rather than local.

Efforts by governments to increase cooperation in terms of the supply of public goods are diverse, and have met with mixed success. There are many multilateral, plurilateral and regional efforts that are partly devoted to the supply of public goods, with a variety of agreements on how to share the costs of financing such goods. In this paper, our working assumption is that such efforts, while useful and important, are insufficient, in part because governments have greater incentives to pursue policies that increase the private wealth and consumption of their citizens than they do to contribute to the greater welfare of the entire world.

### **THE WORLD TRADE ORGANIZATION**

The World Trade Organization (WTO) was created in 1995 to expand and enhance the trade liberalization efforts that had been underway since 1948 as part of the General Agreement on Tariffs and Trade (GATT), but also to expand the mission and scope of such negotiations. What is the WTO? According to its web page:

Above all, it's a negotiating forum . . .Essentially, the WTO is a place where member governments go to try to sort out the trade problems they face with each other. . . the WTO is not just about liberalizing trade, and in some circumstances its rules support maintaining trade barriers — for example to protect consumers or prevent the spread of disease. . . Although negotiated and signed by governments, the goal is to help producers of goods and services, exporters, and importers conduct their business, while allowing governments to meet social and environmental objectives.<sup>6</sup>

Among the most important features of the WTO are (1) strong enforcement mechanisms, including the ability to impose sanctions on parties that violate agreements or do not live up to commitments; (2) a portfolio of agreements and/or negotiations on topics as diverse as tariffs, government procurement, subsidies, electronic commerce, intellectual property rights, investment, competition policy, or liberalization of the services sector; and (3) linkage in the negotiations on each agreement to outcomes of negotiations on other agreements.

The word “trade” is indeed at the heart of the WTO. It is essentially a marketplace to trade commitments on a wide range of topics.

At present, most of the topics being traded in the WTO concern reductions in barriers or distortions to trade caused by tariffs, subsidies, regulatory barriers to trade, and certain types of domestic protectionism, such as the existence of legal cartels or the prohibition of foreign ownership of certain sectors of the economy.

We propose to add a new category of negotiated binding commitments: the supply of heterogeneous public goods involving knowledge.

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<sup>6</sup> “What is the World Trade Organization?” [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact1\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm) (accessed April 6, 2008).



## **A MULTILATERAL AGREEMENT ON THE SUPPLY OF GLOBAL PUBLIC GOODS**

The WTO itself has defined trade liberalization as a global public good that was under-supplied because of both the free rider problem and the dynamics of a prisoner's dilemma, whereby each nation has private incentives to pursue policies that collectively leave everyone worse off. The WTO's solution to the under-supply of trade liberalization was to create a mechanism for countries to negotiate for and aggregate binding commitments to liberalize trade, so that the collective benefits were so large, and the costs of being excluded from such negotiations were so prohibitive, that the prisoner's dilemma problem would be overcome. While there is some debate over the degree to which liberalization has gone too far or has not gone far enough, there is broad agreement that the WTO provides strong mechanisms for supplying more trade liberalization.

Today there are efforts to introduce into the WTO a number of other issues that are less about trade liberalization than about global norm-setting. One of the principle examples in this area is the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights, known as the TRIPS Agreement. Countries that join the WTO are required to sign the TRIPS in order to obtain access to the benefits of the trade liberalization agreements. The TRIPS Agreement does arguably address a trade-related problem. It expands obligations to enclose knowledge goods through a set of mandatory intellectual property rights. The TRIPS is largely about making knowledge a private, rather than a public, good.

While there are areas where knowledge is usefully managed as a private good, there are also areas where knowledge is best managed as a public good. The WTO approach, which only focuses on private goods, is incomplete. This incomplete nature of the agreement is important, because it has focused the attention of trade negotiators and others on only those measures that strengthen the privatization of knowledge, without any role for collective global action to enhance the supply of public goods.

By expanding the trade agenda to include public goods this can be corrected, and global welfare can be enhanced.

## **GLOBAL NORMS OR HETEROGENEOUS OFFERS**

### **Treaties, agreements and negotiations that create norms for strengthening enclosure and increasing intellectual property rights**

Some global negotiations on knowledge goods seek to introduce global norms to promote greater investment, spending or access to knowledge goods. The WTO TRIPS Agreement is a global norm that consists of mandatory minimum intellectual property rights and maximum limitations and exceptions to those rights, combined with strong enforcement provisions. Countries that joined the WTO after 1994 were subject to additional "TRIPS-plus" obligations, typically negotiated by the U.S. or the European Commission as conditions for a country to obtain WTO membership.

There are several non-WTO multilateral agreements, such as the 1996 WIPO WCT and WPPT digital copyright treaties that follow the same approach of setting norms which consist of mandatory minimum intellectual property rights with maximum limitations and exceptions.



The non-WTO agreements are, in theory, voluntary, and are not required as a condition of membership in the WTO, and are not subject to WTO dispute resolution enforcement mechanisms.

Many recent regional and bilateral trade agreements, such as the several, misnamed “free trade agreements” (FTAs) or the European Union's Economic Partnership Agreements (EPAs), incorporate similar but expanded “TRIPS-plus” obligations, with tough bilateral or regional dispute resolution provisions that often lack the safeguards and social clauses that exist in the TRIPS. These bilateral and regional agreements frequently incorporate by reference other agreements, such as the 1996 WIPO WCT and WPPT digital copyright treaties, making the non-WTO agreements mandatory for a country receiving the benefits of the FTA or EPA agreement, and making all of the obligations subject to tougher dispute resolution enforcement mechanisms that also feature considerably detailed and increasingly intrusive management of national implementation of norms.

An important addition to the trade agreements and treaties are unilateral norm-setting activities, including such programs as the United States Trade Representative's “301 List” and associated unilateral trade sanctions for countries that do not provide adequate protection of intellectual property, the European Commission's Trade Barriers Regulation (TBR) program, and the daily diplomatic exchanges between countries in disputes involving the setting of norms and enforcement of intellectual property rights, on such topics as the use of compulsory licenses on medicine patents, the standards for granting patents, the availability of injunctions to enforce rights, and the allocation of state resources to enforce private copyrights.

### **Recent efforts to create norms to increase access to protected knowledge, and enhance the supply of public goods**

Beginning in 1999 at the Seattle WTO Ministerial Meeting and in several subsequent papers, NGO and multi-stakeholder meetings, and in negotiations in norm-setting bodies, there have emerged several proposals for global norms that would enhance access to protected inventions, data or works, or which would enhance the supply of knowledge as a public good.

Following proposals first made in 1999, some academic experts and public health groups began explorations of a possible treaty on medical research and development, both as a means to address research and development in areas of public health priority, such as for the development of treatments for neglected diseases and, more ambitiously, as a rival or substitute for global norm-setting in the area of intellectual property rights for medical inventions.<sup>7</sup>

In November 2001, the WTO issued the Doha Declaration on TRIPS and Public Health, which, among other things, declared that “the Agreement can and should be interpreted and

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<sup>7</sup> See in particular the “Amsterdam Statement to WTO Member States on Access to Medicine,” which was issued at a November 25-26, 1999 conference in Amsterdam titled “Increasing Access to Essential Drugs in a Globalised Economy: Working Towards Solutions,” and distributed a few days later in Seattle at a WTO ministerial meeting. The statement, signed by Médecins Sans Frontières, a group that had just won the Nobel Peace Prize, Health Action International, and the Consumer Project on Technology, called for several measures to increase medical research and development in areas of priority, and called for the examination of “new paradigms for intellectual property rights and health care, including 'burden sharing' approaches for R&D that permit countries to consider a wider range of policy instruments to promote R&D.”



implemented in a manner supportive of WTO Members' right to protect public health and, in particular, to promote access to medicines for all.”<sup>8</sup>

In April 2003, MSF, CP Tech, HAI and Oxfam hosted a widely attended meeting in Geneva on a possible treaty on medical R&D.<sup>9</sup>

In May of 2003, the World Health Organization created a new Commission on Intellectual Property Rights, Innovation and Public Health (CIPIH), which would begin a debate on the need for a biomedical treaty for research and development.

In July 2003, seventy leading experts wrote to WIPO noting the recent “explosion of open and collaborative projects to create public goods” that “raise profound questions regarding appropriate intellectual property policies” and “evidence that one can achieve a high level of innovation in some areas of the modern economy without intellectual property protection, and indeed excessive, unbalanced, or poorly designed intellectual property protections may be counter-productive.” A request for a WIPO meeting was opposed by the U.S. Patent and Trademark Office (USPTO) on the grounds that it was outside WIPO's mandate of “promoting” intellectual property protection.<sup>10</sup>

In October 2003, a larger group of NGOs, government officials, and academic experts met in Lisbon at a TACD-organized event to consider the WIPO work program and mission, and to discuss such ideas as normsetting on minimum limitations and exceptions in the area of copyright or patents.<sup>11</sup>

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8 Ellen 't Hoen, "TRIPS, Pharmaceutical Patents, and Access to Essential Medicines: A Long Way from Seattle to Doha," *Chicago Journal of International Law*, Volume 3 Number 1, Spring 2002; Carlos M. Correa, "Implications of the Doha Declaration on the TRIPS Agreement and Public Health, Health Economics and Drugs," *EDM Series No. 12*, WHO/EDM/PAR/2002.3 (WHO June 2002).

9 James Love, "Basis for a treaty on R&D. Presentation at the Meeting on global framework for supporting health research and development (R&D) in areas of market and public policy failure, Geneva, Switzerland. April 29, 2003. See also: James Love "The Benefits of a Treaty on R&D," presentation given at The Drugs for Neglected Diseases (DND) Working Group, in Rio de Janeiro, Brazil, December 3, 2002; James Love, "From TRIPS to RIPS: A better Trade Framework to support Innovation in Medical Technologies," Presented at the Workshop on Economic issues related to access to HIV/AIDS care in developing countries, Agence nationale de recherches sur le sida, Marseille, France, May 27, 2003; Tim Hubbard and James Love, "An Agenda for Research and Development," paper presented at the Meeting on The Role of Generics and Local Industry in Attaining the Millennium Development Goals (MDGs) in Pharmaceuticals and Vaccines held at the World Bank, June 24, 2003; James Love and Tim Hubbard, "A New Trade Framework for Global Healthcare R&D," *PLoS Biology*, February 2, 2004; James Love and Tim Hubbard, "Make Drugs Affordable: Replace TRIPs-plus by R&D-plus," *Bridges*, June, 2004; Andrew Jack, "WHO members urged to sign Kyoto-style medical treaty," *Financial Times*, February 25, 2005; James Love and Tim Hubbard, "The Big Idea: Prizes to Stimulate R&D for New Medicines Medical Technologies," *Chicago-Kent Law Review*, Volume 82, Number 3, 2007.

10 Declan Butler, "Drive for Patent-Free Innovation Gathers Pace," *Nature*, July 10, 2003; Declan Butler, "Business Backlash Kills off Software Meeting," *Nature*, August 28, 2003; Jonathan Krim, "The Quiet War over Open Source," *Washington Post*, August 21, 2003; William New, "Global Group's Shift on 'Open Source' Meeting Spurs Stir," and "U.S. Official Opposes 'Open Source' Talks at WIPO," *Technology Daily*, August 19, 2003; Larry Lessig, "Open Source, Closed Minds," *E-Week*, October 1, 2003; Frances Williams, "Hopes Revive for Talks on Alternatives to Patents," *Financial Times*, October 1, 2003.

11 "The WIPO Work Program," Workshop organized by the Trans-Atlantic Consumer Dialogue (TACD) and Consumers International, October 17, 2003, Centro Cultural de Belem, Lisboa.



In November 2003, the World Federation of the Blind petitioned the WIPO Standing Committee on Copyright and Related Rights<sup>12</sup> asking for a global norm on access to copyrighted works for the visually impaired, focusing in particular on the challenges and legal obstacles to the export and import of works and services that utilize non-voluntary exceptions and limitations to the rights of copyright owners.

In the Spring of 2004, a TACD meeting at the Ford Foundation in New York City considered the issue of access to essential learning tools and, in a subsequent side event, reached an agreement on a broader campaign to address “access to knowledge,” using the term “A2K.”

In August 2004, Brazil and Argentina proposed a Development Agenda for the World Intellectual Property Organization (WIPO).<sup>13</sup> In this proposal and in the subsequent elaborations were several suggestions for a treaty on access to knowledge and the transfer of technology, and other norm-setting to expand access to protected inventions and works, and enhance the public domain.

In a related, parallel effort at WIPO, in November 2004 Chile asked the WIPO Standing Committee on Copyright and Related Rights (SCCR) to consider norm-setting on minimum limitations and exceptions to copyright in the areas of education, libraries, archives, and for vulnerable populations.<sup>14</sup>

In February 2005, a group of 168 Nobel Prize laureates, academic experts, government officials, members of Congresses or Parliaments, non-governmental organizations and others wrote to the WHO asking for the evaluation of a specific proposal for a treaty on medical research and development.<sup>15</sup>

In February 2005, in Geneva and in May 2005, in London, a large, multi-stakeholder group that included government negotiators on trade and intellectual property, academic experts, non-government organization, innovative businesses and others met to discuss the possible elements of a treaty on access to knowledge in connection with the WIPO Development Agenda negotiations. The product of these meetings was a May 2005 draft of a possible Treaty on Access to Knowledge.

In May 2006, the WHO created an Intergovernmental Working Group on Public Health, Innovation and Intellectual Property to implement the recommendations of the CIPIH, and to consider possible mechanisms for sustainable financing of needs-driven medical R&D.<sup>16</sup> In May

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12 See "Information Meeting on Digital Content for the Visually Impaired" Nov 3, 2003 (Geneva, Switzerland) related/parallel meetings SCCR/10 [http://www.wipo.int/edocs/mdocs/mdocs/en/digvi\\_im\\_03/digvi\\_im\\_03\\_1\\_rev\\_1.html](http://www.wipo.int/edocs/mdocs/mdocs/en/digvi_im_03/digvi_im_03_1_rev_1.html) and in "Summary and Quotes from World Blind Union Presentation at WIPO relevant to a2k treaty discussions" <http://www.cptech.org/a2k/world-blind-union.doc>.

13 WIPO General Assembly, Thirty-First (15th Extraordinary) Session Geneva, September 27 to October 5, 2004, "Proposal by Argentina and Brazil for the Establishment of a Development Agenda for WIPO." [http://www.wipo.int/meetings/en/doc\\_details.jsp?doc\\_id=31737](http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=31737)

14 SCCR/12/3, Proposal by Chile on the subject "Exceptions and Limitations to Copyright and Related Rights." [sccr\\_12\\_3.pdf](http://www.wipo.int/edocs/mdocs/mdocs/en/sccr/sccr_12_3.pdf).

15 February 24, 2005, World Health Assembly Executive Board, <http://www.who.int/intellectualproperty/submissions/en/CPTech.pdf>.

16 WHA59.24, Public health, innovation, essential health research and intellectual property rights: towards a global strategy and plan of action. According to the resolution:



2007, the WHO further agreed to explore new incentive mechanisms for the development of new drugs that were not linked to the prices of products.<sup>17</sup>

In September 2007, the WIPO General Assembly approved by consensus forty-five recommendations for a WIPO Development Agenda, greatly modifying the mission of the agency and introducing more formally an expanded work program to address concerns of access and the protection of the public domain.<sup>18</sup>

In November 2007, the WHO IGWG agreed to hold further discussions on a possible biomedical R&D Treaty.

In March of 2008, the WIPO SCCR began negotiations on proposals by Chile and three other countries to consider minimum limitations and exceptions to copyright.

The general approach by all of these efforts is to obtain a global consensus on norms for the implementation of intellectual property rights, or to agree to multilateral norms concerning sharing the costs of supplying knowledge as a public good, as a complement or even an alternative to the obligations that are current or anticipated in the area of intellectual property rights.

### **Global voluntary support for public goods**

There are also a plethora of projects proposed globally to support public goods in the area of knowledge goods. Examples include requests at G8 meetings for support for open source research and development on new vaccines, the agreement to support the Human Genome Project and place the database into the public domain, some aspects of collaborative research on Avian Flu, and countless other projects.

### **WTO role in norm-setting for knowledge as a global public good**

One can imagine a role for the WTO in norm-setting to promote the provision of knowledge as a global public good, but it is likely to be quite a difficult undertaking given the controversial nature of intellectual property rights, the varying abilities of WTO members to finance new public goods, the limited competence of the WTO in the specific areas for enhancing the supply of public goods, and the considerable difficulties in monitoring and measuring the value of activities that might qualify, when the nature of the public goods projects and the modes of supply are diverse.

### **A WTO agreement for voluntary-but-binding commitments to enhance the supply of heterogeneous global public goods**

A different and more promising role for the WTO would be to focus on voluntary-but-binding commitments to enhance the supply of heterogeneous public goods. Relying in part, but also

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“ . . . such strategy and plan of action would aim, *inter alia*, at securing an enhanced and sustainable basis for needs-driven, essential health research and development relevant to diseases that disproportionately affect developing countries, proposing clear objectives and priorities for research and development, and estimating funding needs in this area;”

17 WHA60.30.

18 “The 45 Agreed Recommendations under the WIPO Development Agenda,” available on the WIPO web page here: [http://www.wipo.int/ip-development/en/agenda/cdip\\_recommendations.html](http://www.wipo.int/ip-development/en/agenda/cdip_recommendations.html).



modifying the approach of the WTO General Agreement on Trade in Services (GATS), the WTO could create a schedule of commitments to support the supply of public goods.<sup>19</sup> Under this approach, in theory, a country could make no offers at all. In the areas where a WTO member would make offers to support the supply of public goods, the offers would be in discrete areas where a government agreed with the objectives of the initiative and the particular modes of supply.

One benefit of such a schedule would be to allow countries to aggregate willingness to pay for or supply certain public goods, when such willingness is highly dependent upon matching offers by third parties.

A second benefit of such a schedule would be to introduce into the more general WTO trade negotiations yet another “ask” or counter “offer” that could secure an agreement on an entirely different element of the broader WTO negotiation. For example, in cases where a WTO member is being asked to liberalize a sensitive sector of its economy, either by lowering tariffs or subsidies, or by removing non-tariff barriers to market entry, it could then “offer,” as an alternative, to participate in a global public goods project, or to adhere to a non-WTO “soft” norm on the supply of a public good, effectively transforming the external soft norm into a binding obligation for that country.

The existence of a voluntary schedule for the supply of public goods could also lead to demands from some WTO members for sufficient offers to address important global problems. For example, the Africa group could insist that it would not agree to a general consensus at the WTO on a broader trade agenda unless there were collectively adequate offers to supply open-source research on malaria or other neglected diseases of particular concern to that region.

## **ISSUES CONCERNING THE DESIGN OF A WTO AGREEMENT ON KNOWLEDGE AS GLOBAL PUBLIC GOOD**

As proposed above, the existence of a schedule for the supply of knowledge as a global public good is potentially a powerful mechanism to expand the supply of such goods. But what are some of the practical issues in designing such a schedule, and what will be some of the risks and criticisms?

### **What would qualify?**

The first issue to tackle would be the type of restrictions on the nature of goods that could be placed on the schedule. Here are a few examples of the type of questions that would have to be addressed:

1. Is an offer to supply access to only part of the world, such as only to least developed countries, or only to countries making reciprocal offers, a legitimate item on the

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<sup>19</sup> For informative and often sobering reports on the WTO GATS negotiations, see the several reports of the Third World Network here: [http://www.twinside.org.sg/services\\_negotiations.htm](http://www.twinside.org.sg/services_negotiations.htm). See also, Suwit Wibulpolprasert, Cha-aim Pachanee, Siriwan Pitayarangsarit and Pintusorn Hempisut, “International service trade and its implications for human resources for health: a case study of Thailand,” *Human Resources for Health*, 29 June 2004, doi:10.1186/1478-4491-2-10.



schedule?

2. Is a good that is protected as a patented invention, but licensed for a field of use, a public good in that field of use?
3. Is an offer to publish a work or class of works a global public good when the work is only available from one source and is supported by advertising?
4. Is an offer to publish a work freely on the Internet a global public good when it is available in a language that is only used in one country?
5. Where would the supply of a free “public good” be considered an illegal subsidy under other WTO agreements?

### ***Sui generis* offers**

Unlike tariffs or other measures that are similar enough to lend themselves to formulas or general approaches, many interesting and important public goods projects by their nature so unique that general approaches as too difficult or impossible to manage. In such cases, *sui generis* offers to supply would be appropriate.

### **Standardized offers**

In some cases, it will be useful to include in the schedule of offers standardized offers for specific public goods or specific norms. The agreement should provide a process under which such standardized offers are transparently proposed, noticed, and re-negotiated, before having the status of a standardized offer. It should not be necessary to have consensus on the form of such standardized offers, but there could be a threshold to indicate sufficient support for the standard, including, possibly, support from different regions. Where appropriate, this could include input from other multilateral bodies with relevant competence.

A standardized offer could include agreed upon definitions and terms of reference that would make it clear what the nature of the obligation was, and was not. The existence of the standardized offer would make it more efficient to negotiate, and provide an opportunity for improving the nature of the offer, making it more useful and appealing to other WTO members, and thus more valuable as a bargaining chip.

For example, the U.S. Congress recently passed legislation to require recipients of the National Institutes of Health (NIH) funded biomedical research to place copies of the manuscripts of published articles in an Internet-accessible, free archive. The implementation of this new obligation will reveal some additional issues to be resolved in order to enhance the access to and value of such research to the public.

At some point in the future, the U.S. government could propose that the NIH policy be the basis for a standardized offer by other governments. In subsequent negotiations, governments might make additional suggestions, such as to ensure that the manuscripts be deposited using open document formats, or that there be multiple options regarding the timing, such as six months, one year, and 18 months, to accommodate different degrees of willingness to share such research with the public. Issues concerning options and policies regarding translation, either manually or by computer, might also be discussed, as well as clarification of the types of copyright licenses



that would be appropriate for such archives. If the discussions matured, one or more standardized offers could be listed, and be included in subsequent WTO negotiations.

In the area of medical research, a country might propose a global database of research involving Avian Flu, contributions to an open source medical compounds library, open source research for the development of an AIDS vaccine, or participation in the collaborative funding of independent, third party clinical trials to evaluate the safety and efficacy of new medicines.<sup>20</sup> Other areas where collective action are important are the funding of prizes to reward global public goods, or funds for patent buy-outs to convert private intellectual property rights into global public goods.<sup>21</sup>

20 For discussions of the rationale for and the possibility of funding clinical trials as public goods, see: I. Chalmers, "Underreporting research is scientific misconduct," *JAMA*, 1990, 263:1405-1408.; T. Bodenheimer, "Uneasy alliance: Clinical investigators and the pharmaceutical industry," *N Engl J Med*, 2000, 342:1539-1544; Rich McManus, "'Abolitionist' Angell Calls for Clinical Trial Reform," *The NIH Record*, July 24, 2001, Vol. LIII, No. 15; John Yaphe, Richard Edman, Barry Knishkowsky, and Joseph Herman, "The association between funding by commercial interests and study outcome in randomized controlled drug trials," *Family Practice*, Vol. 18, No. 6, 2001, 565-568; Sameer S. Chopra, "Industry Funding of Clinical Trials: Benefit or Bias?" *JAMA*, 2003, 290:113-114; Joel Lexchin, Lisa A Bero, Benjamin Djulbegovic, "Pharmaceutical industry sponsorship and research outcome and quality: systematic review," *BMJ*, May 31, 2003;326:1167-1170; Samuel O. Thier, Hamilton Moses III, MD; E. Ray Dorsey, MD, MBA; David H. M. Matheson, JD, "Financial Anatomy of Biomedical Research," *JAMA*, 2005;294:1333-1342; Marcia Angell, *The Truth About The Drug Companies: How They Deceive Us And What To Do About It*, Random House, 2005; Thomas Alured Faunce, "Intellectual Monopoly Privileges, Cost-Effectiveness Evaluation and the Knowledge Commons-New Political Paradigms for Wisdom in the Age of Corporate Globalisation," Presentation at TACD meeting on the politics and ideology of intellectual property rights, March 2006 ; Thomas Faunce, "Toward a Multilateral Treaty on Safety and Cost-effectiveness of Medicines and Medical Devices," WHO Public Hearing on Public Health, Innovation and Intellectual Property, 14 November 2006 ; Tracy R. Lewis, Jerome H. Reichman, and Anthony D. So, "The Case for Public Funding and Public Oversight of Clinical Trials," *The Economists' Voice*, 2007, Vol. 4, Issue. 1, Article 3; Dean Baker, *The Benefits and Savings from Publicly-Funded Clinical Trials of Prescription Drugs*, the Center for Economic and Policy Research, March 2008; Djulbegovic B, et al "Treatment success in cancer: New cancer treatment successes identified in phase 3 randomized controlled trials conducted by the national cancer institute-sponsored cooperative oncology groups, 1955 to 2006," *Arch Intern Med*, 2008; 168: 632-642; Crystal Phend, "NCI-Sponsored Cancer Trials Offer Decent Clinical Return on Investment," *MedPage Today*, March 24, 2008.

21 James Love, "Prizes, not prices, to stimulate antibiotic R&D," *SciDev.Net*, March 26, 2008; Board on Science, Technology and Economic Policy (STEP), *Innovation Inducement Prizes at the National Science Foundation*, National Academies Press, 2007; Thomas C. Erren, "Prizes to solve problems in and beyond medicine, big and small: It can work," *Medical Hypotheses*, 68, 2007, 732-734; Bruce G. Charlton. "Mega-Prizes in Medicine: Big Cash Awards May Stimulate Useful and Rapid Therapeutic Innovation," *Medical Hypotheses*, 68, 2007, 1-3; James Love and Tim Hubbard, "The Big Idea: Prizes to Stimulate R&D for New Medicines," *Chicago-Kent Law Review*, Vol. 82 no. 3, November 2007; Carl Nathan. "Aligning Pharmaceutical Innovation with Medical Need," *Nature Medicine*, March 2007, 13(3):304-8; Joseph Stiglitz, "Scrooge and Intellectual Property Rights: A medical prize fund could improve the financing of drug innovations," *British Medical Journal*, 333, December 23, 2006. :1279-80; Gerard Llobet, Hugo Hopenhayn, and Matthew Mitchell, "Rewarding Sequential Innovators: Prizes, Patents and Buyouts," *Journal of Political Economy*, vol. 114(6), December 2006, pages 1041-1068; Juri Saar. "Prizes: The Neglected Innovation Incentive," ESST: The European Inter-University Association on Society, Science and Technology, 2006; Kevin Outterson, "Patent Buy-Outs for Global Disease Innovations for Low and Middle-Income Countries," *American Journal of Law and Medicine*, Vol. 32, 2006; Richard Newell and Nathan Wilson, "Technology Prizes for Climate Change Mitigation," Resources for the Future Discussion Paper, 05-33, 2005; John F. Duffy "The Marginal Cost Controversy in Intellectual Property," *University of*



If open, non-discriminatory, and royalty-free technical standards for software development were considered a public good, governments might propose commitments to support the work of the World Wide Web Consortium (W3C) or other bodies on this topic.

Some countries might propose a global project to improve the functionality and usability of free software programs to create new, free tools for distance education, to place course syllabuses on the Internet, to digitalize and publish books that have fallen into the public domain, to invest in public domain databases of drug prices, or to support countless other global public goods.

### WHAT CAN GO WRONG?

For any proposal for a new initiative within the WTO, it is important to consider the risks of negative consequences. In no particular order, one can imagine any combination of the following unintended negative consequences:

1. The creation of a schedule for the supply of public goods may create incentives for countries to withhold or delay the supply of public goods in order to preserve the possibility of using them as a bargaining chip.
2. Some developing country negotiators and NGOs may express concern that an “ask” for a public good from a weaker party will lead to a form of knowledge mining from the weaker party. This issue is similar to concerns regarding biopiracy in the areas of traditional knowledge or access to genetic resources. As described informally by one developing country negotiator recently, if much of the R&D base in developing countries is based upon government funds, an “ask” to share the results of that R&D openly may undermine opportunities for exploiting the R&D commercially by domestic firms before the country can develop an entrepreneurial sector with access to venture capital.
3. The process for evaluating the follow-through on the supply of some public goods may be costly and involve controversy.
4. Circumstances change, and some offers for public goods should sensibly be withdrawn as judgments about the value of the offer change, or better opportunities are presented. Will a system of binding commitments lock governments into supporting low-productivity projects without an exit strategy?
5. In a system of “asks” tailored to individual countries, weaker parties, including in particular developing countries, may be pressured into unsustainable obligations to support public goods.

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*Chicago Law Review*, Vol. 71, No. 1, 2004; Nancy Gallini and Suzanne Scotchmer, “Intellectual Property: When is it the Best Incentive System?,” University of California, Berkeley Working Paper E01-303, 2001; Steven Shavell and Tanguy van Ypersele, “Rewards versus Rights,” *Journal of Law and Economics*, 44: 525-547, 2001; Michael Kremer, “Patent Buyouts: A Mechanism for Encouraging Innovation,” *Quarterly Journal of Economics*, 113: 1137-67, 1998; DF Horrobin, “Glittering Prizes for Research Support,” *Nature* 1986; 324:221.



6. An escalation of “asks” for global public goods could make it even more difficult to achieve consensus on new trade rounds.

These and certainly more issues involve both real risks for such an agreement, and are also a challenge for proponents to design solutions. For every potential negative outcome described above, it is possible to suggest measures that would reduce or eliminate the risks. For example, one could imagine limiting the cumulative binding commitments on weaker economies, or design procedures for exiting low-productivity projects in favor of projects considered more useful. Further research should address not only proposals for avoiding these specific negative outcomes, but should also speculate on other areas where there are important risks for negative outcomes.

### **CONCLUSION, RESEARCH AGENDA, AND NEXT STEPS**

The global community is confronted with an under-supply of global public goods, including but not limited to those involving knowledge. The current trading system lacks the capacity to address free riding or the general under-supply of public goods.

There is an ever-increasing landscape of UN agency resolutions and human rights accords that call for increased supply of public goods, and a variety of multilateral and plurilateral agreements or proposed agreements that involve government commitments to increase the supply of global public goods, including but not limited to major projects such as the Kyoto Protocol to the International Framework Convention on Climate Change, the International Treaty on Plant Genetic Resources, the proposed WIPO Treaty on Access to Knowledge, and the proposed WHO Biomedical R&D Treaty. These and other existing and proposed agreements are promising and important, but are not a sufficient response to the under-supply of global public goods.

Specialized agreements in specific areas are most useful in cases where there is a global consensus on the need for the specific public good, as well as on the accepted modes of supply and management for such projects. There are considerable costs and efforts in terms of the negotiations for such agreements, which may explain, in part, their relative paucity when compared to the explosive growth of markets for private goods. The existence of such an agreement is also only a first step, and it is often difficult to secure participation from governments when obligations impose domestic costs in support of benefits that are global.

The WTO is currently focused on increasing the supply of trade liberalization for private goods, and on promoting the private enclosure of knowledge resources through mandatory standards for intellectual property rights and the enforcement of those rights.

By introducing into the WTO a schedule for binding offers for the supply of global public goods involving knowledge, WTO members will have a new and useful option to address issues concerning free riding, and the general under-supply of public goods. Such a schedule would provide an opportunity for WTO members to make asks and offers for binding commitments to supply global public goods as a complement or alternative to asks or offers concerning trade liberalization for private goods, or the private enclosure of knowledge.



Decisions to make offers under such a schedule would not be limited to the opportunities associated with the dynamics of the overall WTO trade negotiations. One impact of a WTO schedule will be to make available the strong WTO enforcement mechanisms for plurilateral efforts to increase the supply of public goods, and to provide a mechanism to make soft global norms into binding commitments.

A WTO schedule for the supply of public goods is a particularly useful way to address the heterogeneous nature of public good projects, including those projects that would not fit naturally within an existing plurilateral agreement.

In considering such an agreement, it is also important to consider the risks of unanticipated negative outcomes, and the measures to mitigate or manage such risks, including but not limited to the challenges discussed above.

### **Research Agenda**

A research agenda for such an agreement would include:

1. A fuller exploration of the type of projects that might be appropriate to be included in such an initiative, including the possible definitions and rules for qualifying projects, and practical illustrations of the types of projects that could be usefully subject to binding commitments.
2. Analysis of the relationship between intellectual property rules and the supply of public goods, including the appropriate licensing terms for goods classified as public goods.
3. Study of the possible procedures for both *sui generis* and standardized offers.
4. Research into the relationship between the WTO framework for trade liberalization and measures to increase the supply of global public goods.
5. Possible extensions of the mechanisms beyond knowledge goods to include, for example, humanitarian assistance, or investments in technology transfer to developing countries.
6. A deeper analysis of the risks, and tools to manage the risks, of negative outcomes.

### **Next Steps**

In addition to research, it may be useful to have both expert and multi-stakeholder meetings to discuss the possibility of such an agreement within the WTO, as well as discussions on this approach within other bodies discussing related measures, such as the WHO IGWG negotiations, the WIPO Development Agenda, or within plurilateral efforts such as UNITAID or the Global Fund.