Centre for International
Governance Innovation

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Enhancing Cultural and Genetic Resource Protection through Design Law

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CIGI Masthead

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Centre for International Governance Innovation

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org

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About the Author

Margo A. Bagley is a senior fellow with CIGI's International Law Research Program, where she serves as a member of the traditional knowledge expert working group. At CIGI, she researches the intersection of the World Intellectual Property Organization's (WIPO's) draft Design Law Treaty with disclosure of origin requirements for traditional knowledge, genetic resources and traditional cultural expressions, and the promise and peril of defensive protection for traditional knowledge. Margo also leads a number of case studies analyzing the instituted governance regime for traditional knowledge and genetic resources.

Margo is an Asa Griggs Candler Professor of Law at Emory University School of Law, where her teaching focuses on international and comparative patent law issues. She rejoined the Emory faculty after 10 years at the University of Virginia School of Law, where, most recently, she was the Hardy Cross Dillard Professor of Law. Margo is the lead facilitator and friend of the chair in the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore. She was a board member for the Public Patent Foundation and served on the National Academy of Sciences Committee on Management of University Intellectual Property. She has served as a consultant to the UN Food and Agriculture Organization Secretariat for the International Treaty on Plant Genetic Resources for Food and Agriculture, and is a member of the Convention on Biological Diversity's (CBD's) Ad Hoc Technical Expert Group on Digital Sequence Information on Genetic Resources for the CBD and Nagoya Protocol.

Margo co-authored the first casebook in nearly a decade on international patent law, and is a lecturer at the Max Planck Institute's Munich Intellectual Property Law Center and at the Center for Inter-American Legal Education's program in Havana, Cuba.

Margo holds a B.Sc. in chemical engineering from the University of Wisconsin-Madison and a J.D. from Emory, where she was a Robert W. Woodruff fellow.

About the International Law Research Program

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law.

The ILRP strives to be the world's leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program's mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world.

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Acronyms and Abbreviations

ABS	access and benefit sharing
ARIPO	African Regional Intellectual Property Organization
CBD	Convention on Biological Diversity
CJEU	Court of Justice of the European Union
DLT	Design Law Treaty
DOO	disclosure of origin
EUIPO	European Union Intellectual Property Office
IGC	Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
IP	intellectual property
LMICs	low- and middle-income countries
PARTS	Promoting Automotive Repair, Trade, and Sales Act of 2017
PCT	Patent Cooperation Treaty
PLT	Patent Law Treaty
RCD	registered community design
SCT	Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
USPTO	United States Patent and Trademark Office
WIPO	World Intellectual Property Organization

Executive Summary

Just a decade ago, a requirement that a designer disclose, in an industrial design application, the origin of traditional cultural expressions, traditional knowledge, and biological or genetic resources used in creating a design was virtually unheard of in national or regional protection systems. But as awareness of the many ways in which cultural and genetic resource use and misappropriation can occur is evolving, some developing countries have begun exploring the appropriateness of, and in some cases even instituting, such a requirement.

These developments have taken centre stage in the negotiations of the World Intellectual Property Organization (WIPO) Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT) on a draft Design Law Treaty (DLT), which is expected to facilitate the obtainment of design protection globally by limiting domestic design registration requirements. Currently, a controversy exists over an African Group[1] proposal to allow policy space in the draft DLT for countries to be able to require design applicants to disclose the origin of traditional cultural expressions, traditional knowledge, and biological or genetic resources used in creating protectable designs.

The African Group proposal is optional — not mandatory — for countries to adopt. At a minimum, parties to the African Regional Intellectual Property Organization's (ARIPO's)[2] Swakopmund Protocol[3] will need such policy space to comply with obligations embedded in that agreement. The need for domestic and international policy coherence and mutual supportiveness in relation to cultural and genetic resource protection issues is also likely to lead additional countries to desire such flexibility in the future, as technology expands the ways these resources can be used and monetized in industrial design regimes.

New issues relating to the intersection of design protection and cultural and genetic resource utilization are arising from the confluence of an increased interest in design protection, the sustained allure of exotic cultural expressions, and novel uses of biological and genetic resources in crafting the appearance of articles protected by industrial design rights. As technology continues to evolve and policy implications crystallize, countries will continue to need space to frame their laws in ways that will appropriately reward the innovation process, while adequately respecting cultural and genetic resource appropriation concerns.

Introduction

"Beautiful things make money."[4] Geoffrey Beene stated these words 40 years ago, yet the widespread recognition of their truth in relation to industrial design is of more recent vintage. For example, high-tech companies are now hiring "CDOs" — chief design officers — a position that did not even exist a few years ago.[5] While the idea of industrial design — making useful articles aesthetically pleasing — is ancient in its origins, for most of the twentieth century, design protection was something of a backwater as compared to utility patents, trademarks and copyrights.[6] However, that has changed significantly in recent years, with design application filings increasing year over year in

1 The African Group is comprised of a coordinated assemblage of 54 countries from Africa that takes positions as a bloc on certain issues in WIPO committee matters.

2 ARIPO is a regional intellectual property (IP) organization for a number of English-speaking African countries. See ARIPO, online: <www.aripo.org>.

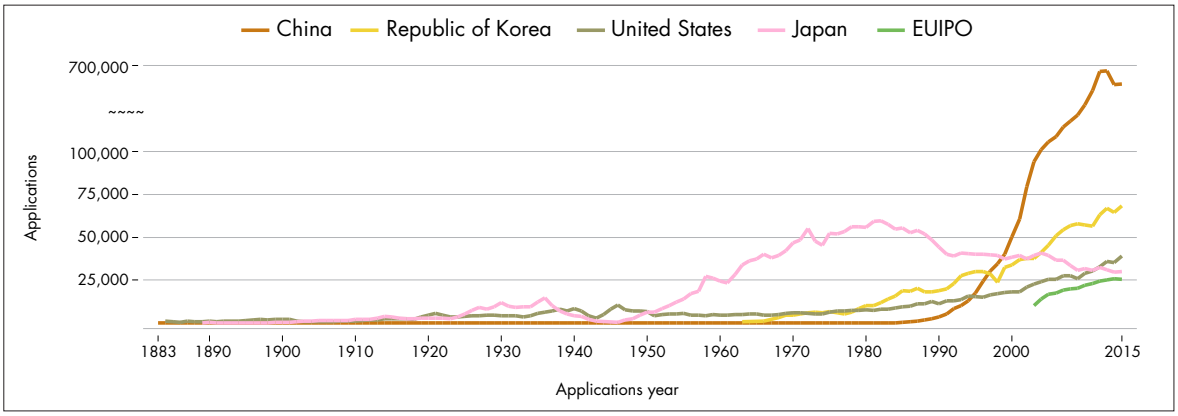
3 *Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore Within the Framework of the African Regional Intellectual Property Organization (ARIPO)*, TRT/AP010/001 (entered into force 11 May 2015) [*Swakopmund Protocol*].

4 Bill Ridgers, ed, *The Economist Book of Business Quotations* (London, UK: Profile Books Ltd., 2012) at 15. See also Susan Heller Anderson, "Geoffrey Beene Takes on Europe", *New York Times* (20 November 1977), online: <www.nytimes.com/1977/11/20/archives/geoffrey-beene-takes-on-europe-geoffrey-beene-invades-europe.html?mcubz=3>. This quote has also been attributed (undated) to John Dalberg-Acton (Lord Acton, 1834–1902). See Ahmed Abouleel, *The Treasury of Motivational Quotes* (Morrisville, NC: Lulu Press, 2016) at 89.

5 See Ozy, "Forget Computers. Design is the New King of Tech" (22 May 2017), online: <www.ozy.com/fast-forward/forget-computers-design- is-the-new-king-of-tech/77163?utm_source= dd&utm_medium=email&utm_campaign=07232017&variable=0b229a2f1d439b07ac6cd04f15eb8144>.

6 See Sarah Burstein, "Costly Designs" (2015) 77 Ohio St LJ 107 (noting "design patents were decidedly out of vogue for most of the twentieth century" at 109) ; Peter Lee & Madhavi Sunder, "Design Patents: Law Without Design" (2013) 17 Stan Tech L Rev 277 ("While scholars, policymakers, and the bar have devoted substantial attention to copyrights, trademarks, and utility patents, design patents have largely languished on the periphery of intellectual property" at 278).

Figure 1: Top Five Industrial Design Offices Application Trends



Source: WIPO

many jurisdictions around the world.[7] Global filings of design applications numbered approximately 872,800 in 2015, compared to 406,200 in 2005 and 187,200 in 1995.[8] Figure 1 depicts the generally steady growth in applications received by the top five industrial design offices in recent years.

The market importance of design protection is generating attention as well. A 2013 study by the European Union Intellectual Property Office (EUIPO)[9] and the European Patent Office estimated that 12.2 percent of EU employment and 12.8 percent of EU GDP was attributable to design intensive industries.[10] The acquisition and enforcement of design rights by smartphone and tablet makers Apple and Samsung illustrate both the increasing interest in design protection and the value such protection can provide. In 2001, Apple obtained 10 US design patents and Samsung obtained eight. However, by 2011, those numbers had increased to 123 and 333, respectively. Moreover, Apple's 2012 jury award against Samsung of more than US$1 billion (later reduced on appeal), most of which was perceived to be due to design patents,[11] may have spurred Samsung to even greater numbers of design patent filings. In 2015, Apple obtained 189 US design patents and Samsung obtained 1,428.[12] Apple's win was a wake-up call that resonated beyond Samsung, as it demonstrated to many observers and producers the potential value of design protection.

Beautiful things that are ethnically and culturally distinctive can also make money, and an area of increasing interest in the design space involves the exploitation of such works. The use of Native American, Aboriginal, Pacific Islander and pan-African imagery is not new, but its value and allure, including as sources of designer

7 See e.g. Robert J Walters, "Is Design Patent Litigation Headed for a Turnaround?", *BNA Patent, Trademark & Copyright Daily* (11 February 2013); Margaret M Welsh & Steve M Gruskin, "Patent Enforcement Update: Design Patents", *Intellectual Property Today* (July 2014).

8 WIPO, *World Intellectual Property Indicators 2016*, online: <www.wipo.int/edocs/pubdocs/en/wipo_pub_941_2016.pdf> ("In 2015, the classes that accounted for the largest shares of the world total were furnishings [9.4%], articles of clothing [8.3%] and packages and containers [7%]").

9 Formerly known as the Office for Harmonization in the Internal Market.

10 EC, "Industrial design protection", online: <https://ec.europa.eu/growth/industry/intellectual-property/industrial-design/protection_en>.

11 See Jeffrey Stone & Brett Klein, "Design Patent Flexes Muscles" (7 December 2012), *DuetsBlog* (blog), online: <www.duetsblog.com/2012/12/articles/idea-protection/design-patent-flexes-muscles/> ("The verdict resulted in $1.05 billion owed to Apple by Samsung, primarily due to design patent infringement").

12 Larry Cady, "IFI Has Not Forgotten About Design Patents: The US Design Top 50", *IFI Claims Patent Services* (5 September 2016), online: <www.ificlaims.com/news/view/larry-cady-s-blog/ifi-has-not-forgotten.htm>.

inspiration, appears timeless.[13] In addition, the use of natural materials, such as those employed by Indigenous peoples in handicrafts or as sacred objects, also remains high.[14] Sadly, the demand for endangered species-derived prestige items also shows no sign of waning.[15]

Another area of expanding design interest is in patterns and materials created through biotechnology. The do-it-yourself ethos common to synthetic biology[16] aficionados is helping to fuel a biodesign explosion that includes fashion and fabrics, such as leather "grown" from mushrooms and scarves dyed with bacterial secretions.[17] We are living in a brave new bio-creative world.

The increasing awareness of the value of design protection is also evident in efforts to facilitate the ability to gain such protection globally. The WIPO Hague Agreement Concerning the International Registration of Industrial Designs (Hague Agreement) allows applicants to file a single application that can contain up to 100 designs, and obtain protection in all member countries that do not indicate rejection of the application within a specified period.[18] The United States joined the Geneva Act of the Hague Agreement[19] in 2012, extending this benefit to US designers and paving the way for increased use of the Hague system. WIPO, which administers the agreement, received 5,562 applications containing a total of 18,716 designs via the Hague system in 2016, representing a 35 percent increase over 2015 and the seventh consecutive year of growth in filings.[20]

While the Hague Agreement creates an international, centralized registration system, it does not directly affect the filing of design applications in national offices. Countries seeking the harmonization and simplification of industrial design formalities at the national level thus have been working to achieve that end through negotiation of another international instrument, the draft DLT currently under discussion in the WIPO SCT. The DLT, which is intended to be a formalities treaty but which may have some substantive effects, is expected to facilitate the obtainment of design protection globally by limiting the requirements countries may impose on design protection applicants.

These three areas of increasing interest — design protection, creative cultural motifs and biotechnology-derived design elements — may appear disparate, yet they are converging in ways that raise concerns for some low- and

13 See Alyssa Vingan Klein, "Elle Canada Faces Social Media Backlash for Cultural Appropriation", *Fashionista* (20 August 2015), online: <https://fashionista.com/2015/08/elle-canada-cultural-appropriation>; Madelyn Chung, "Valentino Accused of Cultural Appropriation For Its 'Africa-Inspired' Fashion Show", *The Huffington Post Canada* (10 July 2015), online: <www.huffingtonpost.ca/2015/10/07/valentino-africa-fashion-show_n_8259468.html>; Metropolitan Museum of Art, "Mask: Female (Pwo)", online: <www.metmuseum.org/art/collection/search/319264>; Amanda Mull, "Valentino's Spring 2016 Runway Bags Relied On African Imagery" (12 October 2015), *purseblog* (blog), online: <www.purseblog.com/valentino/valentinos-spring-2016-runway-bags-relied-on-african-imagery/>; National Aboriginal Design Agency, "Designers move beyond the dots", (2 March), online: <http://nationalaboriginaldesignagency.com.au/category/media/>. See also Monica B Visoná et al, *A History of Art in Africa* (New York, NY: Harry N Abrams, 2001) at 16–23; Tom Greaves, "IPR: A Current Survey" in Tom Greaves, ed, *Intellectual Property Rights for Indigenous Peoples: A Sourcebook* (Oklahoma City, OK: Society for Applied Anthropology, 1994) at 3–4; Jennie D Woltz, "The Economics of Cultural Misrepresentation: How Should the Indian Arts and Crafts Act of 1990 Be Marketed?" (2006) 17:2 Fordham IP Media & Ent LJ, 443 at 445; Gregory Younging, "*Gnaritas Nullius* (No Ones' Knowledge): The Public Domain and Colonization of Traditional Knowledge", WIPO, WIPO/GRTKF/IC/17/INF/5 (a) at 3, online: <www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_17/wipo_grtkf_ic_17_inf_5_a.pdf>.

14 See Paul Kuruk, "Protecting Folklore Under Modern Intellectual Property Regimes: A Reappraisal of the Tensions Between Individual and Communal Rights in Africa and the United States" (1999) 48:4 Am U L Rev 769 at 770–774.

15 See Rachel Nuwer, "A Mausoleum for Endangered Species", *New York Times* (10 July 2017), online: <www.nytimes.com/2017/07/10/science/national-wildlife-property-repository-colorado.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=second-column-region&region=top-news&WT.nav=top-news&_r=0> (describing a Colorado repository containing 1.3 million confiscated items).

16 Synthetic biology involves the design and construction of novel artificial biological pathways, organisms or devices, or the redesign of existing natural biological systems and the creation of standardized biological parts that can be assembled into more complex modules to perform particular functions. For a discussion of synthetic biology issues relating to genetic resources and associated traditional knowledge research, see Margo A Bagley, *Digital DNA: The Nagoya Protocol, Intellectual Property Treaties, and Synthetic Biology* (Washington, DC: Wilson Center, 2015).

17 See e.g. MycoWorks, online: <www.mycoworks.com/#about>; Natsai Audrey, online: <http://natsaiaudrey.co.uk/> (describing a design-led microbiology protocol that replaces harmful synthetic pigments with natural dyes excreted by bacteria).

18 *The Geneva Act (1999) of the Hague Agreement Concerning the International Registration of Industrial Designs*, 6 November 1925, 74 LNTS 328 (entered into force 1 June 1928).

19 The Hague Agreement comprises three independent acts: the London Act of 1925, the Hague Act of 1960 and the Geneva Act of 1999.

20 WIPO IP Statistics Data Center, online: <www3.wipo.int/ipstats/pmhindex.htm?tab=hague>.

middle-income countries (LMICs) that are rich in biological diversity, traditional knowledge, and creative cultural products and artifacts. This is because cultural and genetic resources, namely traditional cultural expressions (such as designs, artifacts, carvings and paintings),[21] traditional knowledge (such as distinctive weaving or painting techniques),[22] and biological or genetic resources (such as DNA, enzymes, fibres and microorganisms),[23] can be used to create protectable designs. A controversy in the WIPO SCT regarding policy space for design application disclosure of origin (DOO) requirements relating to such cultural and genetic resources is a manifestation of these concerns that has brought negotiations on the DLT to a virtual standstill.

This paper focuses on that controversy; on possible justifications countries may have for desiring the flexibility to impose disclosure requirements on design protection applicants; and on the broader ramifications of the dispute. The second part of this paper provides an introduction to design protection regimes and the WIPO draft DLT. The third part describes the African Group's proposal for DOO policy space in the draft DLT, arguments for and against the proposal, and developments in national and regional traditional knowledge, traditional cultural expression, and biological and genetic resource protection systems that ostensibly led to the proposal. The fourth part focuses on advances in biotechnology that are fuelling design creation, and the biological and genetic resource misappropriation[24] concerns that, in part, underlie the desire for DOO policy space. The fifth part provides concluding thoughts on the controversy.

Design Law and the WIPO Draft DLT

Design Protection Regimes

Design protection encompasses a wide swath of eligible subject matter. There are 219 international design classification categories and 5,167 entries, ranging from automobiles to salad bowls to zip fasteners.[25] The design right covers the ornamental appearance of a useful article. For example, design protection in the United States is for "an ornamental design" for "an article of manufacture,"[26] while in the European Union, it is for the "appearance" of an "industrial or handicraft item,"[27] and in China, it is for new designs for the shape or pattern of products that "are rich in aesthetic appeal and are fit for industrial application."[28] Regardless of jurisdiction, design protection generally is available for designs not solely dictated by the function of the product in which the design subsists or to which it is applied, and such protection does not extend to the way the product works, is made or is used.[29]

While most countries protect designs with *sui generis* design regimes, a few countries, including the United States and China, protect designs through the grant of patents. A design patent is simply a type of patent granted on the ornamental design of a functional item. While a standard utility or invention patent protects the way an article is used or works, a design patent protects

21 Consider Canadian Design Registration No 151320 for a "totem bottle." See Canadian Industrial Designs Database, online: <www.ic.gc.ca/app/opic-cipo/id/bscSrch.do?lang=eng>.

22 See e.g. "Paloma Medium Tote Bag", Christian Louboutin, online: <http://us.christianlouboutin.com/us_en/shop/handbags/paloma-medium-tote-bag.html> (featuring Ghanaian Kente pattern) [Christian Louboutin Paloma bag].

23 See MycoWorks, *supra* note 17; Natsai Audrey, *supra* note 17.

24 The term "misappropriation" has many meanings, and may include uses of resources that may have been properly acquired for one purpose, but are being used for a non-permitted purpose or by unauthorized parties.

25 *Locarno Agreement Establishing an International Classification for Industrial Designs*, 28 September 1979, Lex No TRT/LOCARNO/001 (entered into force 23 November 1981), online: <www.wipo.int/wipolex/en/details.jsp?id=12590>.

26 *Patents for Designs*, 35 USC, s 171 (2012).

27 EC, *Council Regulation (EC) No. 6/2002 of 12 December 2001 on Community designs*, [2002] OJ, L 3 at 1, 5 [*Council Regulation (EC) No. 6/2002*].

28 *Patent Law of the People's Republic of China*, c I, art 2 (amended for the third time in accordance with the Decision of the Standing Committee of the Eleventh National People's Congress on Amending the Patent Law of the People's Republic of China at its 6th Meeting on December 27, 2008) [*Chinese Patent Law*].

29 See e.g. *Industrial Design Act*, RSC 1985, c 1–9, art 5.1(a).

the way it looks.[30] However, as noted above, the design cannot be dictated solely by the function of the article. In other words, if the article needs that particular design in order to work properly or more effectively, the design is not protectable.

Design protection can be very beneficial. Its advantages include speedy, often purely formal, examination, the establishment of an alternative basis to utility patents for alleging infringement, and the possible remedies of injunctive relief and damages. The term of design protection varies across jurisdictions, from a short three years for unregistered community designs in the European Union, to 25 years for EU-registered community designs, 15 years for issuance of US design patents, and 10 years for design rights in China and Canada.[31] The exclusivity afforded by design protection may also allow a registrant to segue into perpetual trade dress protection, if the design comes to serve as a non-functional source identifier.

Article 25 of the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)[32] specifies that "[m]embers shall provide for the protection of independently created industrial designs that are new or original," however, TRIPS does not stipulate the means of protection that countries must adopt. Most countries, including the members of the European Union, Brazil, Canada, many African countries, Japan and South Korea, protect designs as a distinct IP right separate from patents. For example, the EUIPO, the agency responsible for EU-wide design protection, grants a registered community design (RCD), which protects "the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation."[33]

While the design covered by the RCD is required to be novel, the EUIPO, as with most other industrial design offices, does not engage in a substantive novelty examination during the registration process; instead, the application undergoes a formalities examination.[34] Thus, design protection can often be obtained more quickly and less expensively than for a utility patent. Yet, a design right can be just as valuable as a utility patent if infringement is found and an injunction barring importation or sale of the article embodying the design is granted. Such an EU-wide injunction was granted, albeit temporarily, against Samsung in 2011 in its wide-ranging litigation with Apple over, *inter alia*, cellphone and tablet designs. The injunction barred the sale of certain Samsung tablets in the European Union based on Apple's RCD, despite the fact that the RCD did not extend protection to the way the Apple tablet worked or how it was made.[35]

How one determines infringement of a design right also varies by jurisdiction. In the United States, courts consider whether two designs are substantially similar from the perspective of an ordinary observer familiar with prior art designs.[36] For EU RCDs, an infringing design comprises "any design which does not produce on the informed user a different overall impression," where the informed user is deemed to be aware of existing designs. Importantly, even though the registration may indicate the type of item to which the design is applied, protection extends to incorporation of the design in any product.[37]

Design protection is available for surface ornamentation or patterns, which also generally qualify for copyright protection as artistic works.[38] From one perspective, the protection of distinct patterns makes sense, as many design patents

30 See United States Patent and Trademark Office (USPTO), *Manual of Patent Examining Procedure*, 9th ed (Alexandria, VA: USPTO, 2014) ("In general terms, a 'utility patent' protects the way an article is used and works, while a 'design patent' protects the way an article looks. The ornamental appearance for an article includes its shape/configuration or surface ornamentation applied to the article, or both. Both design and utility patents may be obtained on an article if invention resides both in its utility and ornamental appearance" at 1502.01).

31 See e.g. *Term of design patent*, 35 USC, s 173 (2012); *Chinese Patent Law*, *supra* note 28, art 42; *Industrial Design Act*, *supra* note 29, art 10.

32 *Agreement on Trade-Related Aspects of Intellectual Property Rights*, 15 April 1994 (entered into force 1 January 1995) [*TRIPS Agreement*], *Agreement Establishing the World Trade Organization*, 1869 UNTS 299, 312 (1994), Annex 1C.

33 See *Council Regulation (EC) No. 6/2002*, *supra* note 27, arts 3(a), 12.

34 Canada is an exception, as the *Industrial Design Act*, *supra* note 29, art 5(1), specifies that "[t]he Minister shall examine each application for the registration of a design to ascertain whether the design meets the requirements of this Act for registration." The United States is another exception, as US law also requires design patent applications to be substantively examined for novelty and non-obviousness.

35 See Cyrus Farivar, "German court suspends EU-wide injunction against Samsung", *Deutsche Welle* (17 August 2011), online: <www.dw.com/en/german-court-suspends-eu-wide-injunction-against-samsung/a-15323043>.

36 See *Egyptian Goddess, Inc v Swisa, Inc*, 543 F.3d 665 (Fed Cir 2008).

37 See *Procter & Gamble Co v Reckett Benckiser (UK) Ltd*, [2007] EWCA Civ 936 at para 21.

38 See e.g. *USPTO Patent Full-Text and Image Database*, with more than 300 fabric designs, online: <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-adv.htm&r=0&f=S&l=50&d=PALL&Query=CCL%2FD5%2F46>.

for the appearance of articles do not include the pattern that actually appears on the article as it is produced and sold. A US handbag design patent, obtained by Christian Louboutin, and correlating product advertisement, illustrates this practice.[39]

This approach allows a manufacturer broader protection, as the design patent covers the appearance of the article, even if a variety of different designs are used on it in practice. Thus, if a manufacturer desires protection for a particular pattern, such as the Kente design on the Louboutin bag, it would be logical to register it separately, so that it would be infringed when placed on *any* article.[40]

Problems may arise, however, where patterns cover traditional cultural expressions, or designs made using traditional knowledge. Whether Louboutin has permission from the Ghanaian government to use the Kente pattern is unknown.[41] It is also unclear whether Louboutin has sought design protection for the Kente-based pattern appearing on the Paloma handbag. Such a pattern, if original, would be immediately protectable under copyright law, but is also eligible for design protection, just like the patterns discussed earlier in this paper that are covered by US design patents.[42] However, it is difficult to search for specific protected patterns or designs as the subject matter is visual and not easy to describe verbally. Numerous registrations exist for patterns, such as a "tartan," which cover items that may vary significantly in actual appearance.[43]

Design protection has long been one of the least harmonized areas of IP law. TRIPS devotes a mere two articles to industrial design protection, compared to six for copyright (which explicitly incorporates provisions from the Berne Convention), seven for trademarks (10 if one includes provisions on geographical indications, which some countries comply with under trademark law) and eight for patents. The subject matter of design can often be protected by copyright or trademark law, raising cumulation and pre-emption concerns.[44] According to J. H. Reichman, "industrial design has posed the IP world's single most complicated puzzle."[45] Jason Du Mont and Mark Janis likewise note, "[t]he design protection debate is one of intellectual property law's most intractable, engrossing decades of legislative effort in the United States alone."[46]

Despite this lack of harmony, or perhaps because of it, the draft DLT requirements putatively reflect areas of convergence and common trends among member states.[47] As discussed below, this push for convergence in relation to a newly popular and controversial right is creating an existential challenge to the DLT negotiations and raising fundamental questions regarding cultural values, legal experimentation and policy coherence.

The WIPO Draft DLT: Substantive Formality

The proposed DLT is principally directed to making the cross-border acquisition and protection of industrial design rights more efficient and effective. Like the WIPO Patent Law Treaty (PLT), the DLT is styled as a formalities treaty.[48] As such, it ostensibly focuses on minimizing administrative requirements that countries can impose on applicants who apply for protection in a member state. The DLT does not purport to change the substantive scope of a country's domestic design law. For example,

39 See United States Design Patent No D784,012, online: <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=D784,012.PN.&OS=PN/D784,012&RS=PN/D784,012; Christian Louboutin Paloma bag, *supra* note 20.

40 Christian Louboutin Paloma bag, *supra* note 22.

41 Section 76 of the Ghana Copyright Act of 2005 provides explicit protection for Kente designs and vests rights in the president of Ghana in trust for the Republic of Ghana's citizens. See also WIPO, *Protect and Promote Your Culture: A Practical Guide to Intellectual Property for Indigenous Peoples and Local Communities* (Geneva, Switzerland: WIPO, 2017) at 27, online: <www.wipo.int/edocs/pubdocs/en/wipo_pub_1048.pdf>.

42 See USPTO, *supra* note 38.

43 *Ibid.*

44 See Graeme B Dinwoodie & Mark D Janis, *Trade Dress and Design Law*, (New York, NY: Aspen Publishers, 2010) at 24 (identifying cumulation problems, "should a designer be able to claim rights in the same design under multiple regimes"; and pre-emption problems, "should protection under one regime preclude protection under another" in the United States and foreign jurisdictions which, while not unique to designs, are "starkly" illustrated in design law).

45 JH Reichman, "Past and Current Trends in the Evolution of Design Protection Law – A Comment" (1993) 4 Fordham IP Media & Ent LJ 387 at 387.

46 Jason J Du Mont & Mark D Janis, "The Origins of American Design Protection" (2013) 88 Ind LJ 837 at 839–840.

47 WIPO Secretariat, *Relationship Between the Hague System for the International Registration of Industrial Designs and the Draft Design Law Treaty* (2013), WIPO Doc SCT/29/4 (noting the DLT provisions "were established as a result of a process that identified areas of convergence and common trends among members of the SCT" at para 13).

48 *Ibid* ("The aim of the draft DLT is to establish a dynamic and predictable legal framework for the simplification and harmonization of industrial design formalities and procedures set by national/regional offices" at 2).

the DLT (like the TRIPS Agreement) does not provide a definition of a protectable design.

This is not to say, however, that characterizing the DLT as a formalities treaty means that it, in fact, has no effect on substantive aspects of domestic design law. The draft DLT contains several nominally formal provisions with arguably substantive effects. For example, article 17 prevents any country that mandates recording of design right licenses from invalidating a registration for non-compliance with that requirement. Moreover, the draft DLT regulations would require countries to allow use of dotted lines to indicate non-claimed subject matter, a tool that effectively expands the scope of the design right.[49]

Article 3 of the proposed DLT is the heart of the treaty and prescribes a "closed" list of elements/information that countries can require of applicants seeking to protect designs in DLT member states. Put differently, it sets out the *maximum* content that can be required in a design application by a contracting party to the DLT.[50] It allows, for example, for countries to require applicants to provide their name and address, a registration request, correspondence information, representation of the design and an indication of the product(s) incorporating it.[51] However, by delineating a closed list of application requirements that countries can impose on applicants, the DLT in effect moved beyond formalities to placing substantive limits on countries in relation to design registration. In response, a group of countries has been seeking to create space in the agreement for both substantive *and* formal policy flexibility.

The African Group DOO Proposal

Just a decade ago, a requirement that a creator disclose the origin of traditional cultural expressions, traditional knowledge, or biological or genetic resources used in creating a work in an application to register the work, was virtually unheard of in national or regional protection systems for any type of IP right. Yet, as a recent WIPO study confirms, DOO requirements are proliferating, in particular in relation to utility patents and genetic resources.[52]

While there are no conclusive definitions for the terms, another recent WIPO publication describes traditional knowledge as being generally understood to encompass "the know-how, skills, innovations and practices developed by indigenous peoples and local communities," and traditional cultural expressions as generally referring to "the tangible and intangible forms in which traditional knowledge and cultures are expressed."[53] Genetic resources are defined in the Convention on Biological Diversity (CBD) as "genetic material [defined as 'material of plant, animal, microbial or other origin containing functional units of heredity'] of actual or potential value (tangible and intangible)."[54] It also defines

49 See Eric Waltmire, "How to Broaden Design Patent Protection with Broken Lines: Apple v Samsung," (7 May 2015), *Eric Waltmire's Blog*, online: <www.waltmire.com/2015/05/07/broaden-design-patent-protection-broken-lines-apple-v-samsung/>. Waltmire describes an excellent illustration from the *Apple v Samsung* litigation:

> The Samsung Galaxy S 4G smartphone on the right has a different back shape and lacks a circular home button on the front as compared to the [iPhone patent]…[b]ut a jury determined that the Galaxy infringed the [iPhone patent] in the case of *Apple v. Samsung*…. Did the jury ignore those different elements of the Galaxy phone? Yes. And they were right to ignore them. Apple drafted the '087 patent in a way that requires that the differences in the back shape and the home button be ignored. Apple did that by providing those features in broken lines…. If Apple would have shown all sides and all features of the iPhone in solid lines in the '087 patent, then it is possible that the jury would have determined that the Galaxy did not infringe the '087 patent.

50 WIPO Secretariat, *supra* note 47 ("The draft DLT does not create a single set of standard requirements, but rather a maximum set of requirements to be applied by the Offices of Contracting Parties").

51 WIPO SCT, *Industrial Design Law and Practice – Draft Articles* (2016), WIPO Doc SCT/35/2.

52 See WIPO, *Key Questions on Patent Disclosure Requirements for Genetic Resources and Traditional Knowledge* (Geneva, Switzerland: WIPO, 2017) ("At the time this study was published, more than 30 countries – including both developed and developing countries – had implemented such requirements through national or regional laws" at 8).

53 WIPO, *supra* note 41 at 9. The term "traditional" in both phrases relates not to the age of the subject matter – new traditional knowledge and new traditional cultural expressions are constantly being created – rather it refers to the manner and communal context in which the cultural resources are created. See Antony Taubman & Matthias Leistner, "Analysis of Different Areas of Indigenous Resources: Traditional Knowledge" in Silke von Lewinski, ed, *Indigenous Heritage and Intellectual Property*, 2nd ed, (Alphen aan den Rijn, Netherlands: Wolters Kluwer, 2008) at 59–60. Exact definitions for traditional, or Indigenous, knowledge and new traditional cultural expressions differ and are the subject of heated discussion in the WIPO IGC, but these phrasings will be used for the purposes of this paper.

54 *Convention on Biological Diversity*, 5 June 1992, 1760 UNTS 79, 31 ILM 818 art 2 (entered into force 29 December 1993).

biological resources as "includ[ing] genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity."[55]

As awareness is evolving concerning the different ways in which cultural and genetic resources can be misappropriated, some developing countries have begun exploring whether DOO requirements are appropriate in the design context and, in some cases, are already instituting them. Thus, it is not completely surprising that in November 2014, the African Group of countries inserted an additional item into article 3's closed list that ultimately brought negotiations on the DLT to an impasse. The provision would allow, but not compel, countries to require the disclosure of the origin of traditional cultural expressions, traditional knowledge, or biological or genetic resources used in creating a design.[56] The proponents deemed this amendment necessary because, as noted above, protectable designs can be based on, and use, all three types of subject matter.

To be clear, the African Group proposal was, and is, intended to be permissive, giving countries the right, but not the obligation, to require DOO, unlike the *mandatory* DOO requirement provision many countries are seeking in the WIPO Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore negotiations.[57] The African Group proposal is justifiably important for several reasons:[58]

- it strengthens complementarity/mutual supportiveness of the traditional cultural expressions, traditional knowledge, and biological or genetic resources international regime complex[59] that involves scientific, cultural and natural resources;
- it enables policy coherence across IP, biodiversity, cultural, human rights and trade regimes;
- it can facilitate member state compliance with access and benefit sharing (ABS) obligations under national, regional and international laws and agreements by increasing transparency in domestic design protection systems; and
- it provides domestic policy space for beneficial legal experimentation.

To call the African Group proposal controversial would be an extreme understatement. Countries opposed to the African Group amendment to article 3 launched a vigorous and sustained objection to the proposal, based on four primary concerns:

- the African Group proposal was introduced very late in the DLT negotiation process, when the agreement was largely finalized in anticipation of a diplomatic conference, and the only outstanding issue was believed to be technical assistance;
- DOO requirements are not common core features of industrial design systems and do not belong in a formalities treaty, or at most could be accommodated by interpretation of the draft regulations to the DLT;[60]
- a DOO requirement would introduce untenable uncertainty for designers and

55 *Ibid*.

56 The African Group offered an improved version of the amendment during the thirty-fourth session of the SCT in November 2015. It is now reflected in the current draft articles and inserts into article 3 the option of requiring "a disclosure of the origin or source of traditional cultural expressions, traditional knowledge, or biological/genetic resources utilized in creating or incorporated in the industrial design." See WIPO SCT Secretariat, *Report*, WIPO Doc SCT/34/8, Annex 1 at 2.

57 For a discussion of the IGC DOO issue, see Margo A Bagley, "Of disclosure 'straws' and IP system 'camels': Patents, innovation, and the disclosure of origin requirement" in Daniel Robinson, Ahmed Abdel-Latif & Pedro Roffe, eds, *Protecting Traditional Knowledge: The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore* (New York, NY: Routledge Press, 2017). See also in the same volume, Dominic Muyldermans, "Genetic Resources, Traditional Knowledge and Disclosure Obligations: Some Observations from the Life Science Industry" at 230; Georges Bauer, Cyrill Michael Berger & Martin Girsberger, "Disclosure Requirements: Switzerland's Perspective" at 244; and Dominic Keating, "The WIPO IGC: A US Perspective" at 265.

58 See also WIPO SCT, *Industrial Design Law and Practice – Draft Articles* (2016), WIPO Doc SCT/35/2, art 3.

59 See Kal Raustiala & David G Victor, "The Regime Complex for Plant Genetic Resources" (2004) 32 International Organization 147 at 148 (introducing the concept of regime complexes).

60 See rule 2(1)(x), as contained in *Industrial Design Law and Practice – Draft Regulations* (2014) WIPO Doc SCT/31/3. It states that parties can also require applicants to provide "an indication of any prior application or registration, or other information, of which the applicant is aware, that could have an effect on the eligibility for registration of the industrial design." This language seems to open up the closed list of article 3. However, member states are not agreed on whether it is broad enough to include a formal or substantive DOO requirement. Moreover, article 23(4) of the draft DLT states, "in the case of conflict between the provisions of this Treaty and those of the Regulations, the former shall prevail." Consequently, the African Group expressed its discomfort with relying for DOO policy space on a regulation that appears to be in facial non-compliance with an article of the agreement.

create a chilling effect on filings by serving as a basis for rejection or invalidation involving the application of vague criteria; and

- the origin of genetic resources, in particular, are widely considered irrelevant to the registrability of a design.[61]

Resistance to the provision's inclusion has been exceptionally strong and, to date, no agreement has been reached on various proposals to address member state concerns.

Despite the objections, the African Group, supported to varying degrees by the delegations from India, Iran, Saudi Arabia and several members of the Asia-Pacific group of countries,[62] has remained steadfast in its demand for DOO policy space in the DLT. The timing of the introduction of the amendment is a reflection of the new and unprecedented nature of the issue in the design context. One of the challenges to legal harmonization is that the harmonizing process is slow, and advances in law, science and digital technologies are creating evolving scenarios that may have been unimaginable at the time efforts to harmonize an area began. Thus, it is difficult to pin down with precision whether, and to what extent, an area is likely to be affected by later developments. This is such an area.

For example, as work on the DLT was beginning in 2008, the objectives were to "identify possible areas of convergence on industrial design law and practice in SCT Members, highlighting particular issues to be addressed in that context and taking into account existing international instruments."[63] The international instruments considered at that time included the Paris Convention for the Protection of Industrial Property, the PLT, the Singapore Treaty on the Law of Trademarks and TRIPS. However, since that time, the Nagoya Protocol to the CBD was adopted in 2010 and came into force in 2014, and requires compliance with ABS obligations in relation to genetic resources and associated traditional knowledge.

The regional Swakopmund Protocol[64] also came into effect in 2015 and, as discussed below, requires several African countries to provide a variety of protections for traditional knowledge and traditional cultural expressions. As the DLT is still in the negotiating phase, consideration of the interplay between the DLT and the obligations contained in these agreements seems quite ripe for consideration in the WIPO SCT.

As noted above, design protection is becoming more attractive, with increasing numbers of design applications filed each year, and increasing opportunities for misappropriation of a country's cultural and genetic resources through the design system. Thus, for many developing countries grappling with the challenges arising from more traditional forms of IP, such as patents and copyrights,[65] the nuances of possible issues pertaining to design protection simply may not have been apparent earlier in the DLT negotiations.

For this same reason, few countries are currently requiring DOO in relation to design protection, but it is an emerging practice. At least 20 African countries, including South Africa and the 19 countries that are members of ARIPO,[66] are all likely to need the policy space to require DOO, at least for traditional knowledge and traditional cultural expressions incorporated into designs.

On May 11, 2015, the ARIPO Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore entered into force.[67] It provides holders of traditional knowledge and expressions of folklore, also known as traditional cultural expressions, with certain rights and protections in relation to their cultural resources. In particular, article 10 relating to traditional knowledge specifies that users of "traditional knowledge beyond its traditional context" are to "acknowledge its holders, *indicate its source* and, where possible, *its origin*, and use such knowledge in a manner that respects the cultural values of its holders."[68] Likewise, article 19 mandates that

61 WIPO SCT, *Report* (2016), WIPO Doc SCT/34/8 at paras 12, 21, 31–40, 43, 45, 47, 64, 66; WIPO SCT, *Report* (2016), WIPO Doc SCT/35/8 at paras 13–14, 23, 28, 32, 34, 36.

62 WIPO Doc SCT/34/8, *supra* note 61 at paras 42, 46; WIPO Doc SCT/35/8, *supra* note 61 at paras 16, 19, 20, 30, 40.

63 WIPO SCT, *Possible Areas of Convergence in Industrial Design Law and Practice* (2009), WIPO Doc SCT 21/4 at 2.

64 *Swakopmund Protocol*, *supra* note 3.

65 See Boatema Boateng, *The Copyright Thing Doesn't Work Here*, (Minneapolis, MN: University of Minnesota Press, 2011).

66 ARIPO, *supra* note 2.

67 *Swakopmund Protocol*, *supra* note 3. To date, Botswana, The Gambia, Liberia, Malawi, Namibia, Rwanda, Zambia and Zimbabwe have deposited instruments of ratification.

68 *Ibid*, art 10 [emphasis added].

contracting parties provide adequate measures to prevent entities from acquiring IP rights (without prior informed consent) over expressions of folklore and ensure that "the relevant community is identified as the source" of works produced using the expressions of folklore.[69]

These provisions require ARIPO member countries to, among other things, ensure proper acknowledgement and source identification of cultural resource holders, and enable such holders to prevent the acquisition of IP rights over those resources and adaptations thereof.[70] A DOO requirement for industrial design applications appears to be a necessary element for complying with these provisions of the protocol, and the draft DLT without the African Group amendment would prevent parties to the protocol from employing such a requirement. Thus, while a DOO requirement is not a common core feature of design regimes, that seems to be an insufficient reason for denying countries the right to employ these requirements to meet treaty and domestic policy objectives and obligations.

In a related matter, the African Group proposal appears to be a reasonable tool to facilitate policy coherence.[71] African Group members and many other biodiverse countries in the global South are party to the CBD and one or more other treaties, such as the Nagoya Protocol to the CBD; the Food and Agriculture Organization's International Treaty on Plant Genetic Resources for Food and Agriculture; and, in some cases, regional agreements such as the Swakopmund Protocol or the Andean Decision. These countries are also in the process of modifying their domestic laws to better protect biodiversity and valuable cultural and natural resources from misappropriation. It would be illogical, and create incoherent internal policy positions, for these countries to agree not to require DOO in design applications, just when they are modifying their laws to facilitate transparency, acknowledgment of rights and improved stewardship of cultural resources. As such, the African Group proposal could benefit *all* CBD members, in particular those rich in cultural and genetic resources, as it could help them comply with their ABS goals and obligations.

According to the WIPO Secretariat, "the draft DLT aims at simplifying and harmonizing industrial design formalities and procedures set by national/regional offices, so as to reduce discrepancies among future Contracting Parties."[72] Harmonization historically was seen as an unexceptional goal because territoriality is inefficient and imposes numerous costs on inventors and creators. This is why for more than a century, certain countries and other parties with multinational interests have sought to increase the level of harmonization in the various global IP systems. However, harmonization also has its downside, and there is growing criticism of its negative impacts, including the way it constrains the policy choices of sovereign nations facing diverse societal needs. Moreover, harmonization in international IP agreements does not equate to harmonization in domestic implementing legislation, and LMICs may lack the sophisticated interpretive tools high-income countries use to creatively and favourably implement treaties in national law. Paradoxically this can result in more stringent IP protection standards in the very countries most in need of flexibility.[73]

Another drawback of harmonization is its negative impact on legal experimentation and domestic policy preferences. As Lisa Larrimore Ouellette notes, "optimal innovation policy likely varies across heterogeneous jurisdictions," and "locking the world into uniform[ity]" makes it difficult to assess the true impact and role of IP protection because "empirical progress depends on policy variation."[74] It is just such space for policy

69 *Ibid*, art 19.

70 The pending South African Protection, Promotion, Development and Management of Indigenous Knowledge Systems Bill 2016, in conjunction with the Intellectual Property Laws Amendment Act 2013, provides for DOO of Indigenous knowledge, Indigenous cultural expressions and Indigenous knowledge associated with natural resources.

71 See e.g. Jean-Frédéric Morin & Mathilde Gauquelin, "Trade Agreements as Vectors for the Nagoya Protocol's Implementation" CIGI, CIGI Papers No 115, 28 November 2016 at 1.

72 WIPO Secretariat, *supra* note 47.

73 An example of this phenomenon is the revised Bangui Agreement, which prevents ARIPO member countries from utilizing flexibilities in the TRIPS Doha Declaration without first going through a judicial procedure in national civil courts. See Carolyn Deere, *The Implementation Game: The TRIPS Agreement and the Global Politics of Intellectual Property Reform in Developing Countries* (Oxford, UK: Oxford University Press, 2009) at 255–258. See also Ruth L Okediji, "Reframing International Copyright Limitations as Development Policy" in Ruth L Okediji, ed, *Copyright Law in an Age of Limitations and Exceptions* (Cambridge, UK: Cambridge University Press, 2017) 429.

74 Lisa Larrimore Ouellette, "Patent Experimentalism" (2015) 101 Va L Rev 65 at 68. See also Peter K Yu, "The International Enclosure Movement" (2007) 82 Ind LJ 827 ("[T]he one-size-fits-all templates in [TRIPS and other] agreements have drastically reduced the policy space available to less developed countries" at 832).

variation that the African Group proposal seeks to inject into the DLT. There are many aspects of calibrating cultural and genetic resource protection that would benefit from legal experimentation across jurisdictions, including whether a DOO requirement should be employed at all, and if so, in what form and to what ends. Countries should not be prevented from engaging in such experimentation, or from adopting justifiably distinctive approaches in their domestic design regimes, especially in light of the historical lack of comparative design law harmonization.

It is possible that some countries are mistakenly viewing the African Group DOO provision as a forum-shifting tool, a strategy for the African Group to achieve via the DLT what it has been unable to obtain thus far in the IGC.[75] Such a view is erroneous. In the IGC, the African Group and many other countries are seeking new economic and/or moral rights in relation to traditional cultural expressions, traditional knowledge, and, in the genetic resources text only, a mandatory DOO requirement for genetic resources in utility patent applications. These are fundamentally different objectives to those being sought for the draft DLT, where the African Group seeks only permission for countries to be able to require DOO, and even then, only for design applications, not utility patent applications.

Even though the disclosure requirement could relate to biological or genetic resources, traditional knowledge, or traditional cultural expressions, this is a much narrower and much less economically significant provision than the provisions sought in the IGC. It would thus be unwise for the African Group to trade agreement to the draft DLT amendment for anything in relation to the IGC. The two issues, while emanating from similar cultural and genetic resource policy concerns, are both important but are completely separate, and one cannot substitute for the other. However, without the policy space to require DOO for cultural and genetic resource utilization in industrial design applications, member states in the IGC would be pre-emptively foreclosed from obtaining some of the goals they seek.

While policy space for a DOO requirement for cultural resources might be acceptable for some current opposers of the African Group proposal, many draw the line at allowing policy space for a biological or genetic resource DOO requirement for designs. That is because the design right generally only protects appearance, not the underlying material from which an article is made.[76] In other words, design protection does not prevent a third party from making an article out of any particular material, as long as the protected design is not substantially identically reproduced. So, for example, an EU RCD covering the appearance of denim jeans designed to appear acid-washed via treatment with the enzyme cellulase does not prevent the enzyme treatment from being used to develop jeans with an appearance different from that shown in the RCD registration.[77] However, there are valid policy reasons for countries wanting to know about the origin of materials used to create protectable designs. The following example, involving illegal uses of biological or genetic resources in design creation, provides an apt illustration.

Biological and Genetic Resources, Illegal Design Creation and Disclosure Requirements

As noted above, the argument against a DOO requirement for biological or genetic resources in the DLT seems logical in light of the limits of design protection. However, such resources *can* matter in design creation, especially if their use involves illegal activity. Consider the following illustration from the utility patent context:[78]

75 See Laurence R Helfer, *Toward a Human Rights Framework for Intellectual Property* (2007) 40 UC Davis L Rev 971 (describing the international intellectual property system as a "'regime complex' — a multi-issue, multi-venue, mega-regime in which governments and NGOs shift norm creating initiatives from one venue to another within the conglomerate, selecting the forum in which they are most likely to achieve their objectives").

76 However, as noted above, the EU RCD protects "the appearance of the whole or a part of a product resulting from the features of, in particular, the...texture and/or materials of the product itself and/or its ornamentation." See *Council Regulation (EC) No 6/2002*, *supra* note 27, arts 3(a), 12. This language suggests that, in some cases, the material of construction may be relevant to the scope of protection of the RCD.

77 See WIPO, *A Stich in Time: Smart Use of Intellectual Property by Textile Companies*, WIPO/PUB/794 at 6, online: <www.wipo.int/edocs/pubdocs/en/sme/794/wipo_pub_794.pdf>.

78 This scenario was first used in Margo A Bagley, "The New Invention Creation Boundary in Patent Law" (2009) 51:2 Wm & Mary L Rev 577. Additional material and/or concepts from that piece have also been borrowed for this section.

> Set in eighteenth century France, author Patrick Suskind's novel "Perfume" tells the story of Jean-Baptiste Grenouille, a man who, from birth, had no personal body odor, which had the effect of alienating him from others.[79] Lacking a personal scent but having an unusually refined sense of smell, Grenouille, an inventor, became obsessed with developing the perfect perfume that would cause people to adore him. He succeeded in his quest. Unfortunately, his method of creating this compound was to murder young women and extract fragrance compounds from their bodies.
>
> Fast forward to the twenty-first century and imagine that Grenouille seeks a patent on his useful, novel, and nonobvious composition of matter. Should the fact that he murdered people in order to create the invention have any impact on his ability to obtain a patent, or on the enforceability of any patent he does obtain?[80]

Although this is a hypothetical question, a number of countries consider illegal, or immoral, activities in creating inventive subject matter when making utility patent grant decisions. Examples include the Court of Justice of the European Union (CJEU) *Brüstle v Greenpeace* decision, where the destruction of human embryos to create embryonic cell cultures was deemed immoral as violative of the EU Biotechnology Directive,[81] and the invention — the claimed cell culture — was deemed unpatentable, despite the fact that it was considered novel and displayed an inventive step. Similarly, in China, the Third Amendment to the Chinese Patent Act denies patentability to utility patent inventions made with genetic resources acquired in violation of Chinese laws.[82] As with *Brüstle*, the invention may be otherwise patentable, but for policy reasons, the legislature concluded patent rights were inappropriate.

These same kinds of concerns are relevant for illegal activity in the creation of protectable designs. Consequently, countries should have the policy flexibility to require DOO for biological or genetic resources. Countries such as China and India choose not to extend patent protection to an invention made using illegally acquired genetic resources, even if the invention does not claim the genetic resources per se. Similarly, because industrial design rights allow owners to exclude from the marketplace the *actual products* whose appearance infringes (i.e., appears substantially similar to) the registered design, countries may choose, under the doctrine of unclean hands or similar reasoning,[83] not to extend a right to exclude to owners of designs made using illegally acquired or used biological or genetic resources. The imposition of a formal DOO requirement for design applications could facilitate the identification of relevant "illegal" designs for such countries.

The design world is bursting with uses of biological or genetic resources to create original designs, from headphones containing "African padauk wood" panels,[84] to original glassware and other items made from a bioplastic derived from shrimp shells.[85] Focusing on the fashion space, innovative examples abound, including versatile leather substitutes crafted from the yeast and bacteria that produce kombucha, or mushroom "skin" grown under various conditions to create leathers that mimic, and in some cases improve upon, cow hide, alligator skin, snakeskin and other kinds of animal pelts.[86] Other examples include genetically engineered silkworms that produce coloured fluorescent

79 Patrick Süskind, *Perfume: The Story of a Murderer* (translated by John E Woods) (New York, NY: Knopf, 1986). Special thanks to Doris Walter of the German Patent and Trade Mark Office for inspiring this hypothetical situation.

80 Bagley, *supra* note 78 at 577, 578.

81 *Brüstle v Greenpeace*, C-34/10 (2011), ECR I-09821.

82 *Patent Law of the People's Republic of China*, art 5, online: <http://english.sipo.gov.cn/laws/lawsregulations/201101/t20110119_566244.html>.

83 See e.g. *Precision Instrument Mfg Co v Automotive Co*, 324 US 806, 814 (1945) (noting the maxim: "He who comes into equity must come with clean hands").

84 See Canadian Design Registration No 124087, registered 23 April 2009. The description states: "The design consists of the features of shape, configuration, pattern and ornamentation of the HEADPHONE shown in the drawings.... A housing of each headphone unit has [a] solid African padauk wood pattern."

85 See Klein; Chung; Metropolitan Museum of Art; Mull; National Aboriginal Design Agency, *supra* note 13. See Biodesign Challenge, "Materials", online: <http://biodesignchallenge.org/themes/materials/>.

86 See MycoWorks, *supra* note 17. MycoWorks uses a ubiquitous type of mushroom that grows around the world.

silks,[87] synthetic biology-based spider silk made without spiders and lab-grown cotton.[88]

However, some of the new uses are somewhat disturbing, such as those by designer Tina Gorjanc. In June 2016, the art school graduate unveiled her critical design show entitled "Pure Human," featuring a collection of fashion items that theoretically could be made from leather grown from DNA extracted from a hair sample from the deceased designer Alexander McQueen.[89] As reported by *The New York Times*, the flesh-toned biker jackets, totes and other items comprising the collection bore freckles, tattoos and other markings strikingly similar to those on McQueen's body.[90] The article notes that Gorjanc did not obtain permission from anyone associated with McQueen's estate to use his DNA in this way.

The CBD and many national laws do not cover human genetic resources per se, however, some countries, such as China, do. Even for those that do not, a use such as the one employed by Gorjanc may still be problematic if, for example, informed consent from the relevant human being was not obtained. Thus, the use of McQueen's DNA without consent raises ethical concerns that a sovereign could begin to address in national law with a DOO requirement as a compliance-facilitating mechanism.

The global market for plant-based innovation and associated products is growing rapidly and includes plant-derived pharmaceuticals, fibres, textiles, cosmetics and, as noted above, fashionable clothing and accessories. As such, the use of biological or genetic resources in the design and manufacture of goods is indisputably an important element of global trade. Companies engaged in innovative product development are increasingly looking for environmentally friendly product components and alluring product designs. This trend emphasizes the use of plant-based material, and thus increases the likelihood of biological or genetic resources being used in products that may ultimately be the subject of design protection.[91]

To be clear, many of these inventions are significant technological advances, far removed from the raw starting materials used in their development. However, that does not necessarily remove them from the purview of national laws relating to biological and genetic resources or from ABS obligations. Rather, such changes in the raw materials may simply affect the *number* of benefits to be shared, not the fact that benefits *are* to be shared.[92] Moreover, it would be erroneous to assume that just because one is using a plant, and not traditional knowledge, that there is no relevant Indigenous contribution in relation to the plant. Many Indigenous groups have been modifying and interacting with the natural environment for millennia in ways that protect, conserve and possibly improve the quality of medicinal and other plants. Such efforts include developing and imposing strict harvesting protocols for medicinal plants, imposing boundaries to protect herb growth areas and more.[93]

To the extent misappropriation of cultural and genetic resources is viewed as a form of theft, it implicates notions of morality, as theft is widely considered morally wrong. Interestingly, morality-tinged concerns are not foreign to design applications. For example, the USPTO's *Manual of Patent Examining Procedure* section 1504.01(e)

87 See also Atsushi Miyawaki et al, "Colored Fluorescent Silk Made by Transgenic Silkworms" (2013) 23:42 Advanced Functional Materials 5232.

88 See Sarah Buhr, "Bolt Threads debuts its first product, a $314 tie made from spiderwebs", *TechCrunch* (10 March 2017), online, <https://techcrunch.com/2017/03/10/bolt-threads-debuts-its-first-product-a-314-tie-made-from-spiderwebs/>. See also Ali Schachtschneider, "Biotextiles: Grow your own materials for fashion design", *Eventbrite* (19 July 2017), online: <www.eventbrite.com/e/biotextiles-grow-your-own-materials-for-fashion-design-tickets-32474114952?utm-medium=discovery&utm-campaign=social&utm-content=attendeeshare&utm-source=strongmail&utm-term=listing>; Ali Schachtschneider, "Eat-A-Wearable", online: <www.alischachtschneider.com/eat-a-wearable.html>; NatureWorks, "How Ingeo is Made", online: <www.natureworksllc.com/What-is-Ingeo/How-Ingeo-is-Made> (NatureWorks is a manufacturer of bioplastics sourced from the long-chain sugar molecules found in corn, cassava, sugar cane and beets).

89 Elizabeth Paton, "Fashion That Gets Under the Skin", *The New York Times* (19 July 2016), online: <www.nytimes.com/2016/07/19/fashion/leather-dna-alexander-mcqueen.html>.

90 *Ibid*. Gorjanc added the tattoos and freckles herself, as the "grown skin" would not include such markings.

91 Boateng, *supra* note 65. As Boateng notes, the "marginalization and appropriation of Indigenous cultural products, be they medicinal plants or fabric designs, relegates them to the status of raw materials, rather than artistic and scientific goods in their own right. This leaves them open to appropriation – often by groups and individuals who then claim ownership of their appropriations by recourse to intellectual property law."

92 This is not a new concept to IP, as copyright vests the right to make derivative works, be they songs, other writings, etc., in the creator of the original work, a work that itself may evidence only a modicum of creativity and originality.

93 Chidi Oguamanam, "Between Reality and Rhetoric: The Epistemic Schism in the Recognition of Traditional Medicine in International Law" (2003) 16 St Thomas L Rev 59 at 75.

states: "Design applications which disclose subject matter which could be deemed offensive to any race, religion, sex, ethnic group, or nationality, such as those which include caricatures or depictions, should be rejected as non-statutory subject matter under 35 U.S.C. 171."[94] This provision does not implicate a DOO requirement, but it does evidence a governmental concern in relation to design rights that is distinct from whether the design is sufficiently ornamental, novel or inventive to be eligible to receive protection. However, morality can be subjective, and views of what is moral can change — often fluidly — over time, complicating legal certainty if design protection is forfeited by immoral activity. If, instead, a country chooses to deny design protection to subject matter made through activity declared illegal under national law, applicants seeking design protection should be able to govern their actions accordingly.

In *Brüstle v Greenpeace*, the CJEU clarified that the European Union Biotechnology Directive barred the patenting of inventions involving the destruction of human embryos at any point in the making of the invention. In other words, even if an immoral activity (as defined by the statute) took place early in the invention creation process and did not explicitly appear in the claims, that still could be a basis for invalidating the patent. One commentator, recognizing the logical implications of the decision, noted that it "could be relied on… to oppose the issuance, or challenge the validity, of patents covering any inventions *obtained through illegal activities*, including *biotech inventions reached through the misappropriation of genetic resources*."[95]

Thus, there is precedent in the utility patent context for assessing whether, and to what extent, patent protection should be available for subject matter deriving from illegal activity. The underlying concern is that there are activities that a government deems illegal that are rewarded downstream by an IP right. Industrial design rights are different from utility patent rights, but these same concerns about rewarding illegal activity are quite applicable to this form of protection.

Formality vs. Substance

During SCT 34, the African Group noted that the draft DLT had been compared to the PLT as a "formalities" treaty,[96] but that the comparison has important limits. For example, unlike the draft DLT, the PLT does not prevent contracting states from requiring disclosure of information in applications. In this way, the DLT ventures much further into substantive territory than the PLT. The PLT does limit the form and content of applications to be no more than is required under the Patent Cooperation Treaty (PCT). However, the PLT states explicitly in article 2 that: "Nothing in this Treaty or the Regulations is intended to be construed as prescribing anything that would limit the freedom of a Contracting Party to prescribe such requirements of the applicable substantive law relating to patents as it desires."[97]

The African Group noted that the proposed DLT contained no such explicit recognition of its formal limitations, which compounds the concerns regarding the closed list in article 3. In response to this concern, and in an effort to find a compromise solution, Adil El-Maliki, SCT chairman and director general of the Moroccan IP office, introduced a chairman's amendment during SCT 34 consisting of a new article 1bis based on language from the PCT and PLT, which specified that nothing in the DLT was intended to prevent a country from prescribing substantive law requirements relating to industrial designs.[98] Thus, proponents could only require DOO in national law as a substantive condition of design protection and registrability.

On the surface, this appears appealing to both sides: the DLT could move forward, and countries would have the ability to require DOO as a substantive condition of design protection. However, this approach, in isolation, is problematic.[99] With DOO as a substantive requirement, failure to comply could result in imposition of some of the harshest penalties in IP, such as revocation of the design right. The availability of revocation

94 The continued viability of this provision in light of the US Supreme Court decision in *Matal v Tam*, 137 SC Res 1744 (2017) (striking down a law denying trademark protection to disparaging marks) is unknown.

95 Enrico Bonadio, "Stem Cells Industry and Beyond: What is the Aftermath of Brüstle?" (2012) 1 Eur J Risk Regulation 93 [emphasis added].

96 See WIPO SCT, *Industrial Design Law and Practice – Draft Articles*, WIPO Doc SCT/35/2 (2016), arts 5, 10, 12–15, 19, 21.

97 *Patent Law Treaty*, art 6 (entered into force 1 June 2000), online: <www.wipo.int/treaties/en/text.jsp?file_id=288996>.

98 WIPO SCT, *Report* (2015), WIPO Doc SCT/34/8, Annex II [SCT/34/8].

99 Such a provision is an important addition to the DLT and is consistent with similar provisions in the PLT (article 6) and PCT (article 27), for example. However, it is not sufficient to allow policy space for formal DOO requirements.

as a penalty for non-disclosure is one of the key controversial issues in IGC discussions regarding a mandatory DOO provision for genetic resources and associated traditional knowledge, and many countries currently opposing the African Group proposal are the same countries opposing revocation as a penalty for DOO violations in the IGC discussions. Thus, it seems contrary to the stated interests of such countries to support DOO as a substantive requirement for design protection.

However, as a formality, facial non-compliance with a DOO requirement should only result in a cessation of further processing of the design application. If the requirement was facially met, and after the design was registered it was shown that the applicant had lied about the origin of the design, the design right need not be revoked. Instead, the applicant/rights holder could be punished outside the design system, such as in an action for perjury (which could be a fine or another penalty).[100]

If the goal of a DOO requirement is to facilitate transparency regarding improper or unauthorized uses of cultural or genetic resources, its categorization as a formal requirement seems appropriate. It makes sense that the harsher remedy of revocation should be available, if at all, only for violation of the underlying law regarding use of the resources without consent or benefit sharing. Thus, if the parties to the DLT rely solely on proposed article 1bis for policy space for DOO requirements, they would be, albeit unintentionally, channeling DOO requirements to substantive provisions in national laws.

A formal DOO requirement may seem pointless for the many design protection regimes employing a formalities-only examination before a design is registered. With no substantive examination for novelty, the DOO information would not be used by an examiner to assess whether protection should be granted. Nevertheless, a DOO requirement could still be beneficial in several ways. Importantly, it could have a deterrent effect on would-be applicants who know they have misappropriated a design. In addition, if an applicant truthfully discloses origin, it could make it easier for the IP office or court to assess the validity of any post-grant challenge to the registration. Moreover, if an applicant lies about origin and obtains a registration, he or she could be subject to various penalties under domestic law if the falsehood is later uncovered.

Concern regarding how a DOO regime might be implemented in a domestic design system has fueled some countries' resistance to the African Group proposal.[101] While a discussion of the optimal structure of a domestic design DOO regime for countries choosing to employ such a requirement is beyond the scope of this paper, there are elements that, if adopted, might alleviate some of the concerns of opponents of the African Group proposal.

One such element could be a linking of domestic traditional knowledge and/or traditional cultural expression registries, such as those provided for by the Swakopmund Protocol, to domestic DOO design application requirements. Such registries, to the extent they provide domestic protection for registered subject matter (somewhat akin to a geographical indications registry), could enhance certainty by enabling challenges to be based on registered, publicly available works. However, such registries may be detrimental to the extent they deny protection to those who need it most: Indigenous peoples and local communities who may not be aware of, or have easy access to, the registries, or the financial wherewithal to register their cultural information. Such registries also would be problematic for holders/owners of cultural resources that are not suitable for inclusion in a registry for secrecy or other reasons. In addition, imposing a requirement of registration prior to bringing a challenge might help to some extent, but many issues still would need to be addressed to develop a system that effectively balances legal certainty with justice and fairness for owners and creators of cultural and genetic resources.

The Cost of Protection

As noted above, design protection in many countries is relatively inexpensive to obtain, certainly relative to utility patent protection. Yet the low cost for the design right owner can impose a very high cost on the public. This is because it may be easy to obtain a design

100 This is the approach taken by Switzerland with regard to violations of the DOO requirement for utility patent applications. See e.g. WIPO, *The Declaration of the Source of Genetic Resources and Traditional Knowledge in the Swiss Patent Act and Related Swiss Regulations on Genetic Resources – Submission by Switzerland in Response to Document WIPO/GRTKF/IC/30/9*, WIPO/GRTKF/IC/31/8 (2016).

101 See SCT/34/8, *supra* note 98, para 37.

right that should never have been granted, and that will be expensive to invalidate in court or even in an administrative action.[102]

The WIPO statistics on the increasing numbers of design filings indicate we can expect a concomitant rise, over time, in litigation involving enforcement of design rights. As DuMont and Janis note, "application-filing trends suggest that intellectual property litigation over designs will become increasingly common worldwide."[103]

The impact on competition can be especially devastating to Indigenous peoples and local communities seeking access to foreign markets (such as the European Union and the United States) for their wares, created in a traditional, communal context, who may find such access blocked by design rights. Moreover, the costs of challenging design use and protection can be prohibitive for such creators. An example from the copyright context is illustrative of this problem.

Art: Bibi Barba and the Hotel Eclipse

In 2012, Aboriginal artist Bibi Barba discovered that her paintings, *Desert Flowers* and *Flowers of the Desert*, had been used, with modification and without authorization, as the basis for carpet patterns, wood paneling, glass dividers and tabletops in the Hotel Eclipse in Domislaw, Poland.[104] Barba said she was "gutted" by seeing her works used in such a way without her permission or any compensation to her. Having to sue for copyright infringement in Poland was very expensive for Barba, and as interest in Aboriginal designs increases, such misappropriation may become more common, resulting not only in costly lawsuits for Indigenous peoples, but also denying market opportunities to them as well. While there are no indications that the Hotel Eclipse's designer sought design rights for the Barba pattern, such a pattern certainly is eligible subject matter for industrial design protection.

The costs to competition of design protection can be quite significant. In fact, legislators in Turkey recently approved exceptions to design protection rights for automobile spare parts replaced by insurers. Moreover, members of the US Congress recently reintroduced the Promoting Automotive Repair, Trade, and Sales Act of 2017 (PARTS Act) over similar concerns. The PARTS Act targets the use by original equipment manufacturers of design patents to prevent competitors from offering fairly standard replacement parts (such as bumpers, side mirrors and light fixtures) for sale during the full term of the design patent, which often exceeds the time period the automobile owner retains the vehicle. The PARTS Act would limit the enforcement period (only as against alternative replacement parts suppliers) for design patents on external automobile replacement parts from the normal 15-year term to 30 months from the first day the part is offered for public sale.[105] Whether the PARTS Act will become law, and if so, in what final form, is unknown, but the bipartisan support for the bill and its reintroduction suggest the issue is one that is worthy of attention.

Disclosure requirements already play various roles in the IP system. For example, article 29 of the TRIPS Agreement mandates that members require applicants to disclose an invention in a patent application in a particular manner that would justify, on a quid pro quo basis, the grant of an exclusive right as being in the best interests of society.[106] Similarly, allowing countries to require DOO in the proposed DLT enables countries to ensure that the grant of a design right is consistent with a range of policy objectives, including protecting and promoting Indigenous innovation and conservation. As such, a disclosure requirement is similar to other policy-based limitations on design rights. For example, article 6(2) of the Canadian Industrial Design Act mandates the rejection of designs that are "contrary to public morality or order." Similarly, article 9 of the EC Design Regulation states that "a Community design shall not subsist in a design which is contrary to public policy or to accepted principles of morality."[107]

102 Burstein, *supra* note 6 at 109 (describing the costs of bad design patents).

103 Du Mont & Janis, *supra* note 46 at 838.

104 See Terri Janke, "Ensuring ethical collaborations in indigenous arts and records management" (2016) 8:27 Indigenous L Bull. See also Andrew Taylor, "Polish hotel tramples Aboriginal artist's work", *The Age* (17 February 2013), online: <www.theage.com.au/victoria/polish-hotel-tramples-aboriginal-artists-work-20130216-2ek3r.html>.

105 David Rood, "Is Congress Finally Getting Serious About Curtailing Design Patents in the Automotive Industry?", *Lexology* (22 June 2017), online: <www.lexology.com/library/detail.aspx?g=be09b69e-0e19-4e9f-92a1-04a9da4d29f5&utm_source=Lexology+Daily+Newsfeed&utm_medium=HTML+email+-+Body+-+General+section&utm_campaign=AIPLA+2013+subscriber+daily+feed&utm_content=Lexology+Daily+Newsfeed+2017-06-23&utm_term=>.

106 *TRIPS Agreement, supra* note 32.

107 *Council Regulation (EC) No. 6/2002, supra* note 27, art 9.

It is also worth noting the DLT is being negotiated in the WIPO SCT. "Origin" is a fundamental concept and requirement in relation to both trademarks and geographical indications. Trademarks receive protection only if they serve as accurate indicators of source or origin. Likewise, the whole basis of protection for geographical indications is that the origin of the product, and the techniques and practices employed by the artisans in that locale, render it sufficiently distinctive to be accorded protection.[108] It thus makes sense that origin should be recognized as a factor worthy of consideration in relation to the remaining subject matter area of the committee — industrial designs.

Finally, what a country does with information gleaned from a DOO requirement, whether formal or substantive, is a matter of national law, in the same way that the uses to which other kinds of information article 3 of the draft DLT allows a country to gather are put, is not a subject of the agreement. Disclosure reveals information that can be used for multiple purposes, and the particular use may not be specified *ex ante*. Thus, the uses to which a country puts information gleaned from a design application DOO requirement should be irrelevant to the question of whether a formalities treaty like the DLT should prevent the imposition of such a requirement in the first instance.

Conclusion

The African Group proposal reflects concerns about justice, about fairness, and about governments committing to protect certain resources and values. This creates a certain tension, as the IP system often has been isolated from these kinds of concerns. The issue of misappropriation has moral overtones as it relates to theft, and the public policy goals of national laws in this area may be undermined by a government's inability to track the unlawful dispersion of its resources. A properly constructed DOO requirement can enhance transparency and facilitate information gathering without overly burdening applicants or IP offices.

Given the importance of this issue to several WIPO members, it seems necessary for any final DLT to contain clear policy space for countries to require DOO for cultural and genetic resources.[109] As the examples described above illustrate, valid concerns attest to the reasonableness of countries desiring transparency regarding the use of such resources in the development of articles protected by industrial design rights. As technology continues to evolve and policy implications crystallize, countries will continue to need space to frame their laws in ways that will appropriately reward the innovation process, while adequately respecting cultural and genetic resource appropriation concerns.

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108 See WIPO, "What is a geographical indication?", online <www.wipo.int/geo_indications/en/>.

109 An "agreed statement" in conjunction with the DLT is another possible compromise tool for allowing countries to employ a DOO requirement. See e.g. WIPO, "Agreed Statements concerning WIPO Performances and Phonograms Treaty", online <www.wipo.int/treaties/en/text.jsp?file_id=295690>.

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Centre for International
Governance Innovation

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org