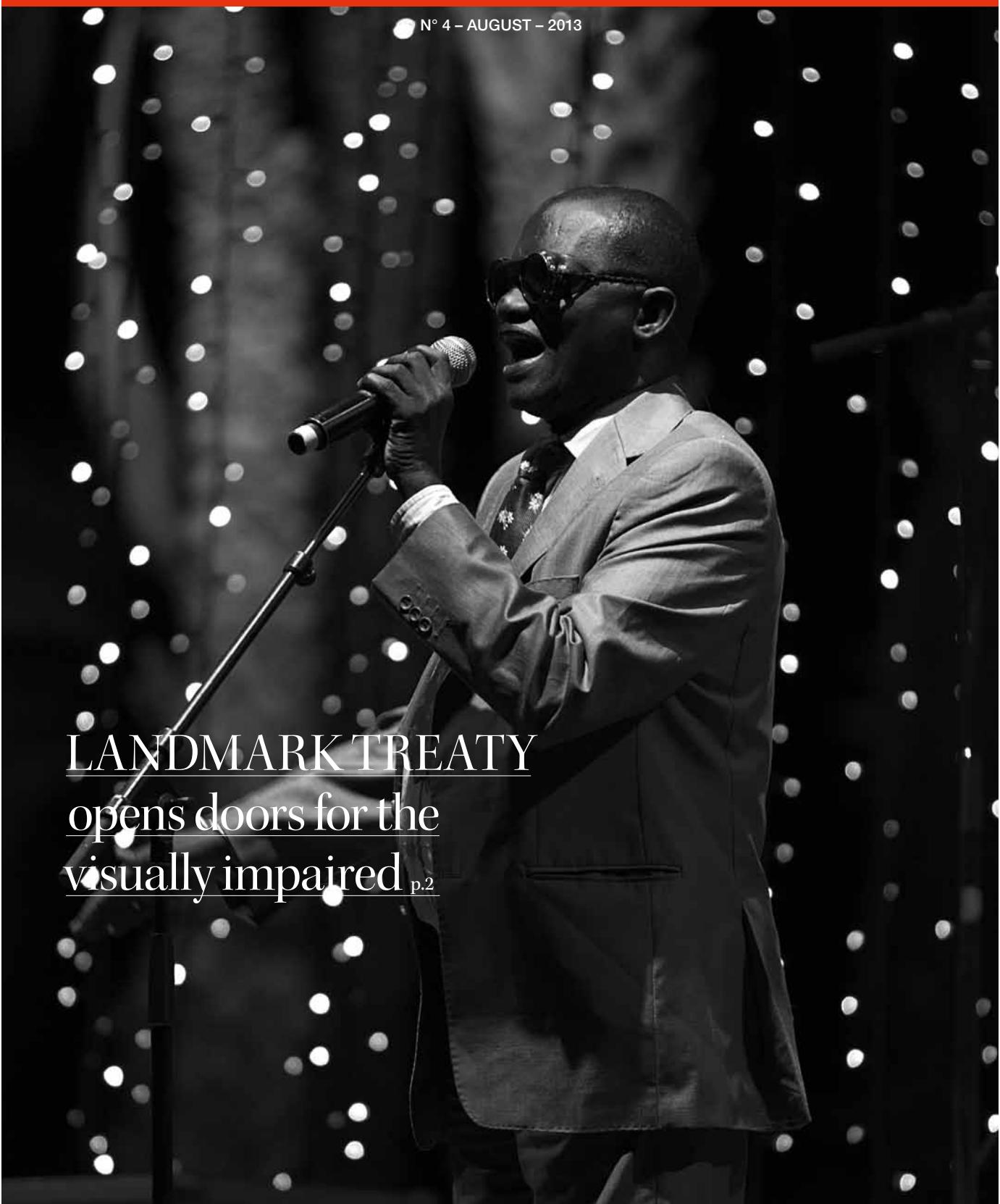


N° 4 – AUGUST – 2013



LANDMARK TREATY
opens doors for the
visually impaired p.2

WHAT THE MARRAKESH TREATY MEANS FOR BLIND PEOPLE p.5

GLOBAL INNOVATION INDEX 2013 p.11 | PERSPECTIVES ON DESIGN p.24

CONTENTS

- p.2 Landmark treaty opens doors
for the visually impaired
- p.5 What the Marrakesh treaty means for blind people
- p.7 Beyond Marrakesh
- p.11 Global Innovation Index 2013
- p.14 Mining innovation: the Filipino way
- p.17 IP and philanthropy:
the Gates Foundation's approach
- p.21 In the courts: What Myriad means for biotech
- p.24 Perspectives on design
- p.30 Polish design: a metamorphosis

Editor: **Catherine Jewell**
Graphic Designer: **Annick Demierre**

Acknowledgements:

- p.2 **Michele Woods** and **Carole Croella**, Copyright Law Division, WIPO
p.14 **Andrew Czajkowski** and **Monika Zikova**, Access to Information
and Knowledge Division, WIPO
p.21 **Matthew Bryan**, PCT Legal Division, WIPO
p.30 **Anna Morawiec-Mansfield**, Department of External Relations, WIPO

Front cover:

In June 2013 the international copyright community concluded a landmark agreement that will open up a whole new world of literature, entertainment and learning for blind, visually impaired and print disabled people around the world.

© World Intellectual
Property Organization

LANDMARK TREATY

opens doors for the visually impaired

By Catherine Jewell,
Communications Division, WIPO

In a move widely heralded as a triumph for multilateralism, WIPO's member states recently concluded a landmark agreement that will boost access to literature, entertainment and learning for blind, visually impaired and print disabled people around the world.

After five years of intense negotiations, on June 27, 2013, WIPO's 186 member states adopted the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled at a Diplomatic Conference hosted by the Kingdom of Morocco. Why was this historic treaty needed and how will it help improve access to published works by blind, visually impaired and print disabled people around the world?

INTERNATIONAL COPYRIGHT: A BALANCING ACT

Since the first international copyright treaty, the Berne Convention on the Protection of Literary and Artistic Works, was concluded in 1886, international copyright law has recognized the need to balance the rights of authors of creative works and special provisions (known as "limitations and exceptions") that are in the public interest. The Berne Convention and subsequent copyright treaties include these special provisions that allow for some uses of copyrighted material without authorization from the rightholder. The definition of the "special cases" to which these provisions apply is left to national governments, the only caveat being that the reproduction of the works produced under them "does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author."

In practice the copyright limitations and exceptions contained in national laws vary widely. A study undertaken by WIPO in 2006 indicated that just 57 countries had special provisions for visually impaired persons in their copyright laws. Because copyright law is territorial, where such special provisions exist in national law they do not cover the import or export of works converted into accessible formats (such as Braille, large print and digitized audio versions of works), even between countries with similar rules. Organizations seeking to produce works in accessible formats have to negotiate with rightholders to exchange special formats across borders or pay to produce their own materials.

This complex situation explains why, according to the World Blind Union (WBU), of the millions of books published each year around the world less than 5 percent are available in formats accessible to visually impaired persons. It explains why, for example, the Libraries of the National Organization of Spanish Blind People (ONCE) which has more than 100,000 titles and its counterpart in Argentina with over 50,000 works cannot share their titles with Latin America's other 19 Spanish-speaking countries.

According to the World Blind Union (WBU), of the millions of books published each year around the world less than 5 percent are available in formats accessible to visually impaired persons.

The Marrakesh Treaty adopted by WIPO member states in June 2013 seeks to alleviate the book famine which excludes millions of visually impaired people from the bulk of the world's published works.

“What has happened here in Marrakesh represents hope for the blind community and the international community. We are giving a human face to globalization.”





Photo: WIPO/Berrod

Recording legend Stevie Wonder who has been closely following the negotiations, urged governments to make ratification of the treaty a priority.

Recognizing the need to address this problem, in 2004, WIPO's member states began exploring whether copyright limitations and exceptions in general should be harmonized internationally. The adoption of the United Nations Convention on the Rights of Persons with Disabilities added impetus to these discussions with respect to visually impaired persons and led to calls for a formal treaty to address the situation in respect of the global community of visually impaired persons. These discussions culminated, in June 2013, in the adoption of the landmark Marrakesh Treaty.

WHAT THE TREATY DOES

The Marrakesh Treaty seeks to alleviate the book famine which excludes millions of visually impaired persons from access to the bulk of the world's published works. It requires countries that agree to be bound by its provisions (so-called contracting parties) to adopt provisions in their national law that permit the reproduction, distribution and making available of published works in accessible formats through limitations and exceptions to the rights of copyright holders.

It also provides for the exchange of these accessible format works across borders by organizations that serve the blind, visually impaired or print disabled. It is the first international treaty to harmonize these types of special provisions internationally, making it easier for organizations to share works in accessible formats with their foreign counterparts and eliminating duplication, improving efficiency and reducing costs of production in the process. Instead of multiple countries producing accessible copies of the same work, each country will be able to produce a different work in an accessible format which can then be shared with other countries.

"It's a wonderful achievement for the international community," said WIPO Director General Francis Gurry, noting the "diversity of interests" surrounding the issue and applauding the

negotiators for their ability to reach consensus in creating a "simple, workable and effective" framework that respects the international architecture of the copyright system. "The treaty has achieved a very fair balance between the various interests that converge on the subject. It is a treaty that will make a difference; it will have a concrete and positive impact and it will contribute to reducing the book famine from which the visually impaired persons have suffered for too long."

"It's a miracle!" said the President of the WIPO Diplomatic Conference, His Excellency Mr. Mustapha El Khalfi, Morocco's Minister of Communications. "What has happened here in Marrakesh represents hope for the blind community and the international community. We are giving a human face to globalization."

WHEN WILL IT TAKE EFFECT?

The treaty will enter into force when 20 WIPO member states agree to be bound by its provisions through a process of ratification or accession. Now that the treaty is a reality, the work begins to ensure it is widely adopted by member states so that the benefits that will flow from it are enjoyed by those for whom it is intended. Shortly after the treaty's adoption, recording legend Stevie Wonder who has been closely following the negotiations, congratulated international negotiators on their success in concluding the treaty but urged governments to ratify it. "I am respectfully and urgently asking all governments and states to prioritize ratification of this treaty so that it will become law of the land in your respective countries and states," he told delegates at the closing ceremony of the WIPO Diplomatic Conference. ♦

WHAT THE MARRAKESH TREATY MEANS for blind people

By **Dan Pescod**,
Vice Chair of the Right to Read Campaign,
World Blind Union (WBU)



Photo: WIPO/Berrod

As Vice Chair of the World Blind Union's *Right to Read Campaign*, I have been participating in meetings of WIPO's Standing Committee on Copyright and Related Rights (SCCR) for the past eight years. For the past five, I have coordinated WBU's day-to-day campaigning for what will now be known as the Marrakesh Treaty, working with our Chairs – Chris Friend and then Maryanne Diamond. Our campaign for this treaty became more a way of life than a job.

I know I speak for all my colleagues when I say that we found the Marrakesh Diplomatic Conference, and most especially its outcome, to be momentous, historic, emotional, and scarcely believable. The much-used tag "Miracle of Marrakesh" is indeed apt.

MAKING A PRACTICAL DIFFERENCE

WBU feels we have the treaty we sought; one that will really make a practical difference to the lives of millions of blind and print disabled people.

Many said the treaty would never happen. Some said it was not worth pursuing, arguing that in itself it would not end the book famine. I can confirm that it will not end the book famine. The treaty, though a great and important achievement, is just

Puerto Rican virtuoso guitarist, singer and composer, José Feliciano, blind Senegalese jazzman, Pape Niang and Brazilian reggae band, Tribo de Jah, formed at the Maranhão School for the Blind, attended the Diplomatic Conference to lend their support and treated delegates to an evening gala performance.





Photo: WIPO/Berrod

Representatives of the visually impaired community celebrate following adoption of the Marrakesh Treaty.

one part of the larger jigsaw puzzle of full accessibility. But we cannot omit a piece of a jigsaw on the grounds that it will not solve the whole puzzle. Without this vital piece – the treaty – the puzzle could never be complete.

These past five years, WBU has heard much of rightholders' fears about the possible consequences of this treaty for them. It is, after all, the first intellectual property (IP) treaty with the explicit objective to improve access for users, rather than to protect the interests of rightholders. WBU never took these concerns lightly. We are certain, however, that in reality this treaty will not damage those interests. We are very confident that if publishers publish accessible books in affordable mainstream formats, blind and print disabled people will buy them or borrow them from mainstream libraries, just as other customers do. To that end, WBU intends to continue to work with publishers to help them achieve a world where mainstream accessible publishing is the norm.

The treaty will open up a world of possibilities for organizations like the Royal National Institute of Blind People (RNIB) in the United Kingdom (UK) to make books accessible and share them across international borders with those who need them most. Even in countries where the print disabled community is relatively well provided for, such as the UK, visually impaired people will be able to receive many more accessible format titles thanks to the treaty's provisions. For instance, at present, Bookshare.org in the USA can only send blind subscribers in the UK some 75,000 of its 200,000 books. With the treaty, it should be able to send us the remaining 125,000 titles at the click of a button.

TRANSFORMING LIVES

Moreover, in developing countries, where the vast majority of the world's visually impaired people live, the treaty should allow us to transform lives. For example, in Marrakesh I met a talented and multilingual blind Moroccan lady who has put her decision to pursue a doctorate on hold due to a lack of accessible books for her studies. Widespread ratification of the Treaty would mean that there is every chance that she will receive the books she needs for her studies, in accessible formats from existing collections. The treaty promises to create a life-changing opportunity for this young woman and many like her, to study, have a career, and fully use her considerable talents.

WHAT NOW?

WBU's *Right to Read Campaign* continues. We need to ensure ratification not just by 20 countries so that the treaty enters into force, but by all countries so that borders no longer pose barriers to accessible books.

We need to explain to blind and print disabled people, and their organizations, what the treaty means for them.

We need to build the capacity of blind people's organizations and other bodies serving blind people all round the world to ensure they are able to take advantage of the opportunities this treaty creates to share books.

We need to continue to work with DAISY, EDItEUR and other organizations which help to make digital books accessible.

Not least, we need to work with publishers and other right-holders, to help them publish accessibly from the word "go".

We have some more years of hard work in front of us before the right to read of blind and print disabled people is achieved in full. Marrakesh, though, was a real leap forward, removing the barriers to access inherent in copyright law. At Marrakesh, the international community also sent a strong message that now is the time to take clear action to really, truly, end the book famine. What a wonderful thing to be part of!

The treaty may not have been the end of the book famine, but to misquote Sir Winston Churchill, it signals the "beginning of the end". WBU looks forward to working with disabled people and their organizations, with WIPO, rightholders, and all others who can help finish the job. ♦

BEYOND MARRAKESH

*By Jens Bammel,
Secretary General, International
Publishers Association (IPA)*



Photo: iStockphoto © mikdam

Congratulations on the conclusion of the Marrakesh Treaty! The adoption of the treaty text is an important step in helping readers with print disabilities around the world to access books, and is an important political step for all stakeholders.

It is a truism that the conclusion of an international treaty by itself achieves little, since everything depends on national implementation. For this reason, we should not spend too much time looking back but instead we must look to the future. The road to Marrakesh may not have been easy but it was surely shorter than the one that lies ahead.

For each stakeholder the steps required to achieve the treaty's purpose will be slightly different.

For WIPO, Marrakesh has demonstrated that it is an organization fully capable of realizing international treaties even in new and difficult areas. This, in itself, is no small achievement. Thanks to the work of its capable secretariat, WIPO was able to channel the existing political will, give it direction and produce a decisive result. As its next step, WIPO must now help its member states bring their national laws into line with the provisions of the treaty. Member states will require guidance as they seek clarity on how this treaty will work in practice. This is an important task, especially in view of the high expectations for quick results.

For the World Blind Union, the treaty creates the real prospect that many thousands of copies of works in accessible formats currently held in special libraries in different countries can be exchanged. This is a great step for the many print disabled persons who are connected to such services, and who have the skills and the technology to access such copies. Achieving rapid implementation of the treaty will be a priority before advancing technology reduces the need for such services or changes the role of the service providers. However, a major and daunting task remains: to reach and help the vast majority of print disabled persons in developing countries who are currently outside of the reach of charities that can provide accessible format copies. While the direct distribution of accessible format works may help address this issue in part, significant guidance and capacity building will be needed to put the relevant treaty provisions into practice in such cases.

Fortunately, there is the political will to help. The fact that 51 WIPO member states signed the treaty after it was adopted shows that many governments take the issue of equal access for persons with print disabilities seriously, not just as a humanitarian need but as a policy objective. All WIPO member states will need to consider how the Marrakesh treaty can be implemented so that it actually improves access. For many countries this will mean a broader review of their accessibility policies. Only with extra resources, capacity building, and local collaboration with rightholders can the purpose of this treaty be fully achieved. The stakeholders representing persons with print disabilities will need to determine what role WIPO should play in assisting them with capacity building, and with providing access to accessible format copies. The 'virtual global accessible library' which has been touted as one possible model to ensure that the objectives of the treaty are met would require significant and appropriate resources.



For publishers, Marrakesh was successful because an important humanitarian objective was addressed while international copyright law remains substantially unchanged. The checks and balances in this treaty maintain long-established copyright principles including the three-step test (see box). International copyright law has not been weakened, but reinforced.

For publishers, the focus of our efforts will remain readers with print disabilities. Technologies to provide equal access are improving constantly — publishers are adopting, developing and rolling them out globally. There is a real prospect that we can achieve fully inclusive publishing outputs, at least for newly published works, within the next five years.

The treaty has been carefully limited to accommodate a very specific humanitarian purpose within unique circumstances. In achieving this end, it does not alter the fundamental structure of international copyright law and, in setting clear limits to the international exchange of works, the treaty confirms and reinforces the principle of territoriality of copyright.

As digital technologies change publishers, libraries and education at breakneck speeds, the Marrakesh treaty shows that we should focus on harnessing, not weakening, IP as a vital expression of the greatest resource the world has: the creativity, entrepreneurship and resourcefulness of people everywhere. ♦

The three-step test explained

Various international treaties, including the Berne Convention for the Protection of Literary and Artistic Works (Article 9(2)) and the Agreement on Trade-Related Aspects of Intellectual Property (TRIPS Agreement) (Article 13), allow for copyright to be limited under certain special circumstances. Generally, such copyright limitations and exceptions must satisfy the so-called three-step test, that is, they must be confined to (1) certain special cases where the reproduction of the work (2) does not conflict with the normal exploitation of the work and (3) does not unreasonably prejudice the legitimate interests of the copyright owner.





The Diplomatic Conference to conclude Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled took place at the Palais de Congrès in the heat of the bustling city of Marrakesh.

WIPO's Stakeholders' Platform for Visually Impaired Persons

In addition to the legal measures to improve access by visually impaired persons to published works enshrined in the Marrakesh Treaty, a number of complementary practical initiatives to improve the availability of published works in relevant formats have been under development.

In 2008, the SCCR decided to establish a Stakeholders' Platform at WIPO. Its aims are first, to improve the availability of works in large print, Braille and other formats in a timely manner and second, to minimize the unnecessary and costly production of multiple copies of the same work by organizations serving visually impaired persons in different countries by facilitating the international exchange of such works.

TIGAR

An initiative known as TIGAR, the Trusted Intermediaries Global Accessible Resources project was launched in 2010. The TIGAR pilot brings together various institutions serving the visually impaired community to facilitate access to works in relevant formats such as audio, large print and Braille. "TIGAR is a public-private partnership designed to facilitate movement of works in accessible formats to visually impaired persons around the world," said WIPO Director General Francis Gurry. "It complements the enabling framework established in the recently adopted Marrakesh Treaty by creating an operational system to ease the book famine that the global visually impaired community has faced for too long. TIGAR is a powerful vehicle for ensuring better access to published works by visually impaired persons and promises to open new doors to literature and learning".

The project involves the creation of a database containing the titles of works in accessible formats that participating organizations around the world can search to acquire such works, as well as developing the systems required for cross-border transfer of such works in various formats. The database now contains some 200,000 searchable titles with details of available formats and the participating organizations from which they may be obtained. Some participating intermediaries are already integrating these titles into their collections and making them available to the community they serve. To date, 21 trusted intermediaries and 45 rightholders have signed up to TIGAR.

The Enabling Technologies Framework

A second initiative, known as the Enabling Technologies Framework (ETF) launched in June 2010 is jointly run by two international standards bodies, the DAISY Consortium and EDItEUR. The DAISY Consortium focuses on the development and promotion of standards and technologies for the visually impaired community. EDItEUR develops, promotes and implements accessible publishing processes and meta data standards across the publishing industry. The project seeks to promote the development and use of standard technological processes and systems for the mainstream production of accessible publications.

Capacity-building

A third focus of the Stakeholders' Platform is to build capacity and strengthen links with Trusted Intermediaries and the publishing industry in developing and least developed countries. Capacity-building activities are already underway in Namibia and Bangladesh and others are planned for Sri Lanka and the United Republic of Tanzania later in the year.

GLOBAL INNOVATION INDEX 2013

By Catherine Jewell,
WIPO Communications Division and
Sacha Wunsch-Vincent, Economics
and Statistics Division, WIPO

Amid ongoing global economic uncertainty, policymakers are focusing on innovation as a means of stimulating growth, generating employment and enhancing competitiveness. Measuring the innovation capabilities and performance of countries around the world is essential for policymakers to evaluate progress and identify priorities. The Global Innovation Index (GII), now in its sixth year, has become a leading reference for benchmarking the innovation performance of countries around the world. It offers detailed metrics and a practical guide for policymakers to more easily identify what needs to be done to foster innovation and improve a country's innovation performance. In addition to ranking the innovation capabilities and outputs of countries, the GII seeks to deepen understanding of the dynamics of the multi-faceted process of innovation. This year it focuses on the local dynamics of innovation, reflecting the importance of innovation hubs, such as Silicon Valley in the United States and Daedok Innopolis in the Republic of Korea (ROK), in fostering a virtuous cycle of innovation, growth and employment. GII 2013 offers some interesting insights into the evolving global innovation landscape. We explore its main findings.

Amid slow and uneven global economic recovery, the GII underlines the importance of innovation as a foundation for future growth. "Innovation is a major contributor to economic growth and the major component of economic success in a global economy in which knowledge and intangibles are increasingly a component of production and distribution. It is the source of competitive advantage for enterprises, industries and companies and, as such, increasingly the basis of competition between them," said WIPO Director General Francis Gurry at the launch of GII 2013. "Innovation is also the major source of improvements in the quality of our material life," he said pointing to its potential in improving health outcomes, ensuring food security and overcoming the threat of climate change.

GII 2013 was launched at the High-Level Segment of the United Nations Economic and Social Council (ECOSOC) on July 1, 2013 which focused in particular on the role of science,

technology and innovation and the potential of culture in achieving the Millennium Development Goals and promoting sustainable development

R&D SPENDING ON THE RISE

GII 2013 shows that innovation is "alive and well". Despite the ongoing global economic challenges, the overall picture for innovation is positive with research and development (R&D) spending exceeding 2008 levels in most countries. "At no other point in history has so much money been spent on R&D worldwide," the report notes. After a steep decline in 2009, "countries and firms have resumed investing in R&D and innovation," said Soumitra Dutta, co-editor of the Report and Anne and Elmer Lindseth Dean, Samuel Curtis Johnson Graduate School of Management, Cornell University. Gross R&D expenditures in many developed and emerging economies show a positive upward trend with countries like China, India, Indonesia and Malaysia enjoying double-digit growth. Emerging markets, in general, have increased R&D spending faster than high-income countries.

RANKINGS

For the second consecutive year, Switzerland and Sweden, topped the GII's rankings, demonstrating high levels of performance across all indicators, followed by the United Kingdom, the Netherlands and the United States. "The top 25 ranked countries on the GII are a mix of nations from across the world – North America, Europe, Asia, Oceania and the Middle East," said Professor Dutta, underlining the changing geography of innovation and its global nature. "Never before has innovation been so well distributed among countries," he said.

While high-income countries dominate the top 25 rankings, the good news is that various new players, such as China, Costa Rica, India and Senegal are rapidly outpacing their peers.



PERSISTENT INNOVATION DIVIDE

The rankings, however, point to a “persistent innovation divide”. While individual countries within the top 25 innovators have swapped positions no individual country moved in or out of the group in 2013. One way of interpreting this, Professor Dutta suggested, is that innovation success leads to the emergence of a virtuous cycle – once a critical threshold has been reached countries attract greater levels of investment and talent which in turn spur innovation.

RAPID PROGRESS OF INNOVATION LEARNERS

The rankings indicate the significant and rapid progress of a number of “innovation learners”. Eighteen emerging economies are outperforming other countries in their respective income group. These are (in order of performance) the Republic of Moldova, China, India, Uganda, Armenia, Viet Nam, Malaysia, Jordan, Mongolia, Mali, Kenya, Senegal, Hungary, Georgia, Montenegro, Costa Rica, Tajikistan and Latvia.

Among all regions, Latin America demonstrated the most significant improvement in GII rankings with Costa Rica taking the lead regional position.

“Although our findings show that daunting challenges remain for many new players, we also see exciting examples of innovation success, including in some of the poorest countries. This is a source of optimism about the future of global innovation and economic recovery,” said Bruno Lanvin, the report’s co-editor and Executive Director of INSEAD’s European Competitiveness Initiative.

A NEW DIMENSION: THE DYNAMICS OF LOCAL INNOVATION

This year’s GII sheds new light on the dynamics of local innovation. “Dynamic innovation hubs are multiplying around the world despite the difficult state of the global economy. These hubs leverage local advantages with a global outlook on markets and talent,” said Mr. Gurry. Local hubs or concentrations of universities, enterprises, service providers and specialized suppliers are of great importance in facilitating innovation,” he continued, noting their particular relevance to developing countries seeking to improve their innovation capabilities.

Clusters enhance competitiveness by pooling talent, know-how, capabilities and resources. They have a multiplier effect on the economy by encouraging high-tech, knowledge-based or creative industries; building up research excellence; attracting global companies; and stimulating spin-offs. The GII shows that while different models of innovation hub exist, in each case large enterprises acting as hub champions play a key role in a hub’s development and success. “These champions support innovation hubs by providing capital and connections, by facilitating knowledge creation and sharing, and by providing

a bridge for the commercialization of ideas,” noted Cesare R. Mainardi, Chief Executive Officer of Booz & Company.

The GII’s analysis of the ways in which innovation is influenced and shaped by unique local factors and tacit knowledge provides valuable insights into how “successful models of innovation have taken shape in different conditions and their recipes for success. It can also help determine how these models can be replicated where the conditions are identical or adjusted where the conditions are similar,” noted Mr. Chandrajit Banerjee, Director General of the Confederation of Indian Industry.

GII 2013 explores every stage of the value chain, identifying and analyzing elements that are critical to the success of local innovation systems and their ability to move ideas to the market, including, for example, access to finance and markets and the role of incubators and technology transfer programs.

The GII builds on traditional innovation metrics and offers a holistic view of the “alchemy of innovation” and the importance of mindset in fostering innovation. “Innovation itself is more than just a process. It is a belief, a philosophy that embeds itself in the fundamental elements of governance, sustainability, efficiency and the competitive agility needed to deliver value,” noted Osman Sultan, CEO of Emirates Integrated Telecommunications Company PJSC (du).

A key strength of the GII is that it provides a framework to continuously monitor and capture the evolving nature of innovation and the many new ways in which it is being fostered. “It offers a framework that evolves in response to both the availability of data across a diverse range of countries and our growing understanding of innovation,” Mr. Gurry said. “It aims to provide a blueprint of the inputs and outputs of the innovation ecosystem and to benchmark the respective performances of countries in relation to those inputs and outputs, thereby providing measures that countries may use to improve their innovation capacity. We believe the GII is paving the way for better and more informed innovation policies around the world.”

“In the global economy, innovation from anywhere can drive change and create new opportunities everywhere. Everyone concerned with innovation as a catalyst for economic and social development needs to remain focused on how innovation can transform industries, businesses and people’s lives, not just locally but across the world,” notes Mr. Li Yingtao, President of Huawei Technologies’ 2012 R&D Laboratories.

The GII is a “must read” for policymakers seeking to harness the transformative power of innovation to tackle issues of economic growth, jobs and competitiveness. ♦

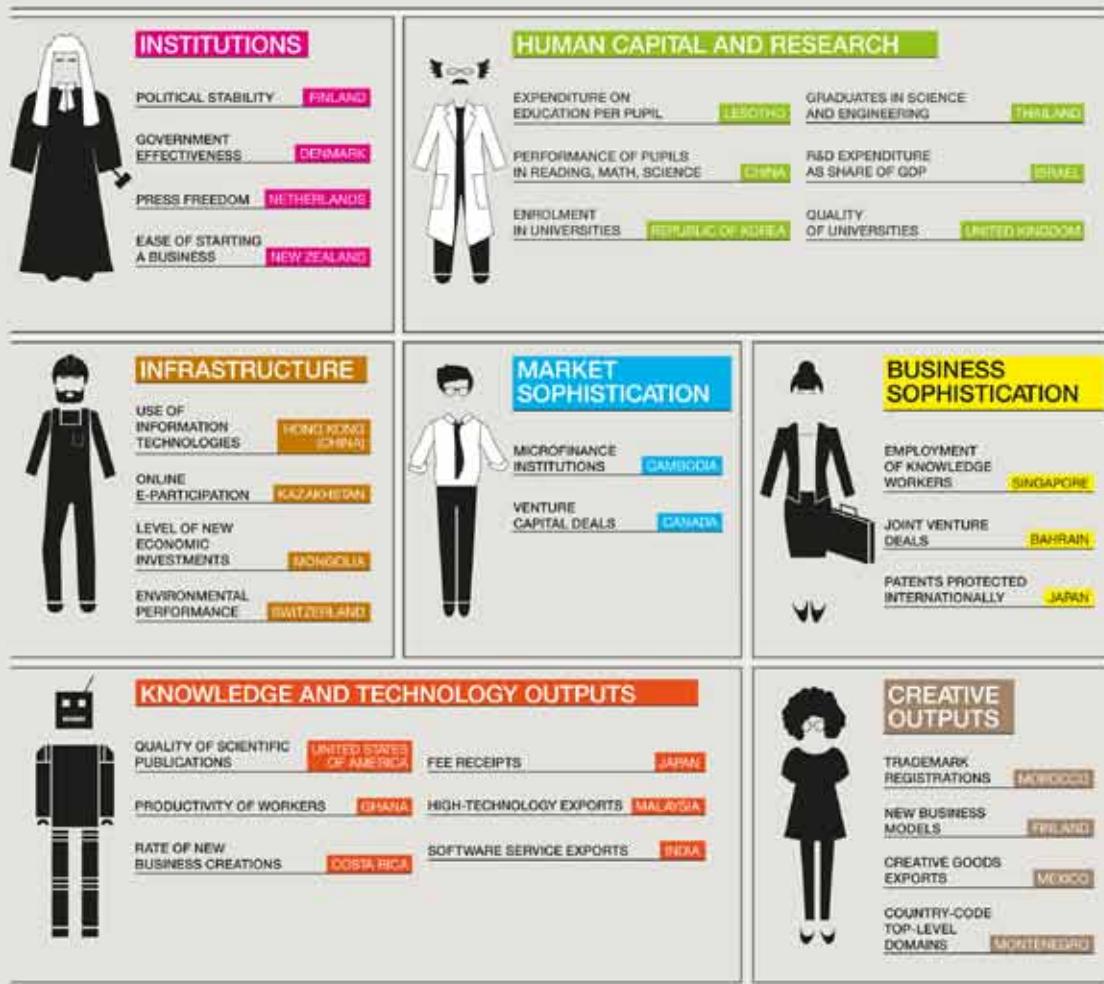
A GLOBAL INNOVATION DREAM-TEAM

IN A PERFECT WORLD FOR INNOVATION, WHO WOULD DO WHAT?



The GII ranks the innovation capacity and results of 142 countries and economies using 7 groups of indicators.

Here are some of the leading players from each group.



MINING INNOVATION: The Filipino Way

*By Andrew Michael Ong,
former Deputy Director General for
policy, international relations and
legal matters, Intellectual Property
Office of the Philippines*

As one of the fastest growing economies in the world, with a growth rate in 2012 of 6.6 percent, there is renewed optimism that the Philippines will finally shed its image as the “sick man of Asia”. With robust domestic consumption supporting the momentum for growth and reforms and anti-corruption measures driving improvements in the manufacturing and services sector, the time is ripe for the country to flex its economic muscle. For this to happen, policy-makers need to invest in developing a legal framework, institutions and systems to support innovation and technological development; and businesses need to move from being technology consumers to becoming technology creators by leveraging their research and development (R&D) capabilities to produce high-quality, innovative, value-added products and services.

MAXIMIZING THE BENEFITS OF PATENT INFORMATION

Strategic, development-oriented use of the patent system has a key role to play in supporting innovation and economic growth. Not only do patents act as incentives for continued investment in technological R&D by recognizing and rewarding inventors, they also act as a vehicle to disseminate technological knowledge. All those applying for patent protection are required to explain how their technology works. This so-called “disclosure requirement” makes patents a rich source of technological information. In addition, patents also transform useful knowledge into tradable property rights, serving as a basis, for example, for establishing technology licensing agreements to facilitate technology transactions among multiple partners and minimize risks of misappropriation or infringement. Many countries use technology licenses to gain access to know-how that exists beyond their borders to enhance industrial and manufacturing capacity at home. There is no reason, in theory at least, why the Philippines cannot leverage the patent system in the same way.

IMPROVING IP AWARENESS: A PRIORITY

In practice, however, Philippine businesses demonstrate little understanding of how strategic use of patents can drive innovation and secure a competitive advantage. Low levels of intellectual property (IP) awareness, even among technology professionals and business executives, are reflected in national



Photo: IOPPHL

ITSO staff undertake an intensive training program before an office opens. So far 50 ITSOs are in operation. With many universities eager to join the program, this number is likely to increase.

patent filing statistics. Since the enactment of the Intellectual Property Code of the Philippines (Republic Act No. 8293) in 1984, a consistently low number of patent applications have been filed by residents, accounting for only between 3 and 5 percent of the total number of annual patent filings (see Figure 1). There is clearly huge untapped potential for industry to use patents to strengthen and leverage their R&D activities and create a favorable climate for innovation.

In a move to boost use of the patent system within the Philippine business community and to improve awareness of the strategic value of patents, the Intellectual Property Office of the Philippines (IPOPHL – the government agency responsible for promoting the use of IP for national economic development) refocused its activities. Since 2010, the need to explain the benefits of IP and how it can be used to help achieve the country's development goals has become its foremost priority.

IPOPHL's new vision is capturing the imagination of the national IP community and is also attracting interest in new circles, among groups that had never previously considered IP to be relevant to them. The challenge now is to provide the know-how and the tools these new stakeholders need to use the IP system for their purposes. Developing the knowledge and skills required to research and use patent information seemed an ideal starting point in enabling new users to add value to and leverage their work.

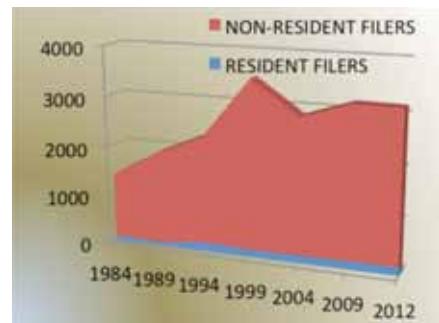
DIGITAL TECHNOLOGIES: OPENING DOORS TO PATENT INFORMATION

In the past, searching patent information was akin to finding the proverbial needle in a haystack - time-consuming, impractical and costly. Improved inter-operability of computer platforms and ease of uploading and transmitting digitized information over the Internet, however, are improving information flows, including in the area of patents. These developments plus the sophisticated and powerful database tools and search engines available today make it much easier for researchers, inventors and entrepreneurs to mine the technological information contained in patent documents. This information is a valuable source of business and market intelligence and is being used increasingly to inform and educate stakeholders across organizations and beyond national borders. For example, it provides the raw material for the generation of technology "landscapes" that map the relative density of research in specific areas of technology, offering useful insights that can influence research and investment decisions. In sum, digital technologies have made it possible to tap into the world's accumulated store of patent documents and the wealth of scientific and technological information they contain.

CATALYZING IP CREATION

Recognizing the multiple benefits deriving from accessing and searching patent information, IPOPHL, set up its Innovation & Technology Support Offices (ITSO) Project. The project was launched in 2010, in tandem with WIPO's TISC initiative to establish Technology Innovation Service Centers (TISCs) in IP offices of member states to support the wider and more active use of patent information by a broader range of interested communities.

The aim was to embed patent information service centers in universities across the country to catalyze the creation of IP by pushing the scientific and technological information found in patent databases to local industries and by helping researchers to use patent information in their work. Universities and colleges are logical homes for ITSOs because they offer a deep pool of knowledgeable professionals and are located throughout the country.



courtesy of IPOPHL

Low levels of IP awareness within the business community in the Philippines are reflected in national patent filing statistics. Since the enactment of the Intellectual Property Code of the Philippines in 1984, a consistently low number of patent applications have been filed by residents, accounting for only between 3 and 5 percent of the total number of annual patent filings.



Under the project, each ITSO provides affordable patent information services on demand to the local business community and helps to foster university-industry collaborations in support of innovation. In some instances, ITSOs also offer short courses on IP for faculty members and assist in designing IP course material for university programs. In the absence of a technology transfer office within a university they can also offer support in patent drafting, patent prosecution and the commercialization of technology.

CHALLENGES

Getting universities to buy in to the idea and securing their long-term financial commitment, however, proved difficult. Recruiting faculty members willing to be trained to work in an ITSO was also a challenge. Like their industry counterparts, many faculty members were unaware of the relevance of patent information to them or of the potential benefits of patenting their research. Welded to a mentality of “publish or perish”, many failed to even consider securing a patent on their research before publishing it. Changing these deep-rooted perceptions was a daunting task.

FRANCHISING: A PATH TO FINANCIAL VIABILITY

After almost a year of roadshows engaging with the academic community to highlight the advantages of the initiative, a first batch of 29 institutions signed an initial two-year agreement to set up and operate an ITSO on their respective campuses. In so doing, they also committed to signing a franchise agreement with IPOPHL to operate their ITSO as a financially independent entity that formed part of a country-wide network of franchisees.

In the face of chronic resource constraints, IPOPHL considered that a franchising model was the only realistic way to secure the long-term viability of ITSOs and to safeguard their key role in creating the necessary conditions for innovation. Under the model, after a two-year period during which they receive government support, ITSOs are expected to become financially independent. Management falls to the host institution and revenues are derived from their services to industry. Each ITSO,

however, operates under a franchising system. This makes it possible to aggregate resources, ensure high standards of quality, and apply uniform procedures with the backing of a central authority. As the franchisor, IPOPHL establishes the regulations and guidelines governing ITSO operations, and provides technical support, including negotiating preferential terms for the offices to use proprietary patent databases.

At the forum on Access to Technology for Innovation organized by IPOPHL in March 2012, WIPO Director General Francis Gurry noted that “the patent system is responsible for having put together the most comprehensive, the most systematic and most accessible record of humanity’s technology.”

IPOPHL’s ITSO program offers businesses and researchers in the Philippines the key to navigating this wealth of information to advance scientific and technological progress in support of the country’s long-term economic development goals. So far, some 50 ITSOs have opened their doors for operation and many more universities are eager to join the program.

While it is too early to gauge the success of IPOPHL’s franchise model, the ITSO initiative has already transformed the attitude of academics towards patents. Within university settings, patent information is now widely recognized as a valuable source of technical information and researchers readily explore the feasibility of patenting their work. Hopefully, the benefits of this shift in attitude will soon have a tangible and positive impact on the country’s industrial landscape and business prospects. ♦

IP and Philanthropy: the Gates Foundation's approach

By Catherine Jewell,
Communications Division, WIPO



Photo © Bill & Melinda Gates Foundation / Prashant Panjwani

The Bill & Melinda Gates Foundation is driven by the conviction that “every person deserves the chance to live a healthy and productive life.” Since 1994, the Foundation has distributed some US\$23 billion in grants and is supporting work in over 100 countries. In its push to maximize the impact of its activities, the Foundation lives by four core values - optimism, collaboration, rigor and innovation. “We believe in the power of innovation to solve problems,” Bill Gates affirmed in his Dimbleby Lecture in London (UK) in January 2013. Together with its partners, the Foundation has developed over 100 innovations to help transform lives; some are already available and others are scheduled for delivery by the end of the decade. *WIPO Magazine* sat down with Richard Wilder, Associate Legal Counsel for the Foundation’s Global Health Program, who explained the role that intellectual property (IP) plays in the Foundation’s work.

MAXIMIZING IMPACT

The Foundation focuses on key areas that will have the greatest social impact. “Our Global Program targets a limited number of diseases and health conditions that account for a significant share of illness and death in developing countries,” Mr. Wilder

The Bill & Melinda Gates Foundation is driven by the conviction that “every person deserves the chance to live a healthy and productive life.” Together with its partners the Foundation has developed over 100 innovations to help transform lives. Intellectual property plays a role in enabling the Foundation to achieve its global access goals.



explained. "The Foundation works hard to harness advances in science and technology to address major causes of illness, primarily infectious diseases and neonatal and maternal healthcare, but vaccines remain our highest priority. Of all development spending, the best investment so far is vaccines," Mr. Wilder noted, pointing to the huge impact vaccines have had in reducing child mortality and morbidity rates. By 2025, the Foundation aims to have vaccinated 90 percent of children against diseases such as measles and rotavirus.

THE POWER OF PARTNERSHIP

Partnerships and collaborations are a critical element of the Foundation's strategy. "We believe in the power of partnership to expand the reach and depth of our work," Mr. Wilder explained. "We seek out collaborative partnerships with those that have the tools and infrastructure to do what is needed to bring about the changes that will enable all people to live healthy and productive lives. We cannot do it alone, our grantees and partners are at the center of our work. Partnerships enable us to draw on the unique talents, resources and know-how of industry, academia and the public sector to create affordable new health tools tailored to the needs of developing countries."

WHAT ROLE FOR INTELLECTUAL PROPERTY?

But what is the role of intellectual property (IP) in the Foundation's strategy? "Our use of IP is driven by the fact that we are results oriented. At the end of all the work we do, we want to see to it that a product comes into the markets we serve and is of benefit to the populations we serve," Mr. Wilder said. IP often plays a role in the Foundation's many partnerships and global collaborations in so far as it establishes from the outset who holds rights in a given technology and how that technology is to be used and deployed once developed. "With all the investments we make, IP is managed to achieve global access," Mr. Wilder noted.

For the Foundation, global access entails the prompt and broad dissemination of knowledge and information generated by funded projects and the availability of all products arising from such projects at affordable prices to those most in need in developing countries. "There are lots of detailed and closely

negotiated agreements that have to be put in place, including IP licenses, confidentiality agreements, material transfer agreements, and the like – it's the basic tool kit that is used in lots of different settings," he said, noting the particular challenges arising from the philanthropic nature of the Foundation's work .

"Articulating the global access objective and embodying it in the legal text is something that requires a fair amount of explanation up front with companies and universities we are working with for the first time and often requires the negotiation of special terms to ensure we get what we need in terms of global access," Mr. Wilder said, explaining that IP agreements and global access commitments vary according to the funding option, nature and evolution of a project and the entities involved. "From the early days, it was clear that our partners wanted to see IP managed appropriately," he said. "In so far as we are talking about IP embodied in products, the people who own those IP rights are obviously going to be very sensitive and want to be sure that they are dealt with appropriately. They accept our global access principles and agree that, at the end of the day, the product will be accessible. But if there is a commercial advantage to be obtained by launching a technology in other markets or for other populations, they don't want to give that up and we don't want them to give it up because profitability in those other markets can make their work sustainable."

THE TRANSFORMATIVE POWER OF INNOVATION

In line with its belief in the transformative power of innovation, the Foundation is constantly pushing for new solutions to improve global health, and alleviate hunger and poverty in the developing world. "We begin by defining a technical solution we want to achieve, whether it be re-inventing the toilet or developing a vaccine for HIV/AIDS or a needle-free injection system, then we request proposals from the relevant public so that we get the widest possible input from people with solutions to solve those problems," Mr. Wilder explained.

GRAND CHALLENGES EXPLORATIONS

In 2008, the Foundation launched the first round of its Grand Challenges Explorations (GCE), a US\$100 million initiative to foster collaborative research and innovation to improve global

Funding options

The Foundation's funding options include grants, contracts and program-related investments (PRIs). In 2011, the last year for which data is available, the Global Health Program disbursed almost US\$2 billion in grants.

Grant funding normally involves the Foundation's IP team negotiating agreements to ensure that global access is unimpeded or to secure commitments relating to the specific quantity, pricing and delivery of a product, all of which takes place prior to the disbursement of grant money. However, management of IP arising from funded developments is generally left to grantees and partners once a commitment to global access is secured. When the Foundation enters into a contract for specific work to be done, it is usually in relation to a study or white paper and, as a general rule the Foundation owns the copyright in these materials. Where contracts entered into by the Foundation are more complex, however, there is a need to negotiate commensurately more complicated provisions around IP ownership and licensing. The overarching goal, however, is to ensure that global access is achieved.

The Foundation is also increasingly using PRIs – including equity investments in companies, normally small start-ups that may have been recently spun out of university research. In such investments, close attention is paid to IP rights and licensing to ensure that the technology owned and developed by such companies will be put to the service of achieving the Foundation's global access objectives.

The Gates Foundation is constantly pushing for new solutions to improve global health, and alleviate hunger and poverty in the developing world.



Re-inventing the toilet

Today, more than 2.6 billion people – some 40 percent of the world's population – lack access to basic sanitation services. In 2011, the Gates Foundation challenged researchers and innovators to re-invent the toilet, a utility that has evolved little since it was first invented in 1775.

Universities were invited to design toilets that can capture and process human waste off the grid and transform it into useful resources, such as energy and water at a cost of no more than US\$0.05 per person per day including capital, operational and maintenance costs.

Researchers at the California Institute of Technology (US) (pictured on the left) won first prize with their solar-powered toilet that generates hydrogen and electricity.

At an event showcasing the winning entries, the Foundation's co-chair, Bill Gates said, "Innovative solutions change people's lives for the better. If we apply creative thinking to every challenge, such as dealing with human waste, we can fix some of the world's toughest problems."



Photo: ©Bill & Melinda Gates Foundation / Michael Hanson

health and development. Initial awards are US\$100,000 but projects demonstrating potential may receive additional funding of up to US\$1 million. "This is a standard approach," Mr. Wilder noted. "Thanks to these initiatives we have been able to make good progress in overcoming some of the technical hurdles associated with developing new drugs and vaccines, for example. We work with grantees to ensure they have the relevant IP rights for the development, use, manufacture, marketing, commercialization and distribution of funded developments to ensure global access."

The GCE program targets established researchers in science and technology and also reaches out to young entrepreneurs and innovators to help expand the pipeline of ideas to tackle tough social challenges. "Part of the reason for doing this is to reach a broader range of actors than is the case with the larger grants. It is proving to be quite successful," he said.

Each round of the GCE program identifies areas for which creative new ideas and solutions are required and invites proposals. For example, the Foundation recently requested proposals for next-generation sanitation technologies to help reduce diarrheal disease. Many communities in the developing world do not have access to electricity or running water and are unable to run adequate sanitation facilities. "We need a technology that works off the grid," Mr. Wilder said. "The GCE program has generated some really interesting ideas and we are going to be funding some of them for future development, making sure that they are affordable and accessible to poor people in poor countries."

"These new technologies will very likely be covered by IP rights because there is a commercial market for such toilets on pleasure craft, ships, rural camps and the like. Grantees are perfectly free to serve these commercial markets (or license others to do so) to become profitable and sustainable, but we want to be sure that the products we invest in are available and affordable in the markets we are targeting," he added.

The Foundation's commitment to innovation goes beyond the development of new technologies, and includes a strong emphasis on developing more effective ways to deliver these innovations to those most in need. "None of these innovations will make any difference if they don't reach the people we are targeting," noted Mr. Wilder. "You have to plan the roll out and uptake of new products. It doesn't happen by magic. To ensure that our work is part of a coherent whole we are adopting a more integrated and holistic approach, to drive end-to-end impact from discovery through to delivery," he said. "Part of this restructuring exercise involves establishing a new IP management system to better track global access commitments, licenses and relevant IP."

The Foundation's strategic use of IP is enabling it to leverage its resources and harness the transformative power of innovation to tackle some of the world's toughest development challenges. Where the Foundation has succeeded, others in the philanthropic sector may well follow. ♦

What Myriad means FOR BIOTECH

By **Emma Barracough**,
Group Editor,
Managing Intellectual Property

Who owns your genes? Do you own them if they are inside your body, but someone else can own them if they have been removed? Are isolated human genes man-made, patentable inventions or unpatentable products of nature? These were the issues before the nine justices of America's highest court in *Association for Molecular Pathology v Myriad Genetics* earlier this year.

The story of *Myriad* begins almost 20 years ago, when Salt Lake City-based Myriad Genetics announced it had sequenced the *BRCA1* gene, a mutation that can lead to breast and ovarian cancer. Two years later, the team published the sequence for another gene correlated with hereditary breast and ovarian cancer: *BRCA2*. It obtained patents on both genes. Its discoveries were lucrative: in 1996 it began selling the first molecular diagnostic test for these hereditary cancers at a cost of around US\$3,000 per patient.

Fast-forward to 2009 and the company found itself (along with the Trustees of the University of Utah) sued by a group of human rights campaigners and patients' rights activists. The plaintiffs, who included the Public Patent Foundation (PUBPAT), the American Civil Liberties Union (ACLU) and Breast Cancer Action, challenged claims in seven of Myriad's BRCA patents. Although thousands of genes are patented in the US, PUBPAT attorney Dan Ravicher says the groups targeted Myriad because of the company's reluctance to license its patents to competitors.

The plaintiffs prevailed at first instance, when a New York judge held that DNA is unpatentable subject matter. A quirk of timing saw the Federal Circuit for the Court of Appeals consider the dispute twice: once before and once after the Supreme Court ruled in another highly-anticipated biotech case – *Prometheus v Mayo* – that Prometheus's diagnostic method patents were invalid. (See *US courts grapple with patent-eligible subject matter* – www.wipo.int/wipo_magazine/en/2012/06_article_0006.html).

By the time the Myriad case wound its way up to the Supreme Court, it had attracted almost 50 *amicus* briefs, from associations of IP lawyers and biotech researchers to venture capitalists and concerned citizens. The interest the case provoked is unsurprising considering both the issues before the Court

Key biotech cases

Judges and patent office officials on both sides of the Atlantic have decided a series of high-profile gene-related disputes. Here are some of the most important.

Diamond v Chakrabarty

In 1980, the Supreme Court of the United States ruled that a micro-organism that had been genetically modified for use in cleaning oil spills was patentable on the grounds that it did not constitute a "product of nature". The Court set an important precedent in the area of patentability by ruling: "The laws of nature, physical phenomena, and abstract ideas have been held not patentable. Thus, a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter ... Such discoveries are 'manifestations of . . . nature, free to all men and reserved exclusively to none.'" The decision was a close-run thing, however: four justices dissented, a portent of litigation to come.

Harvard Oncomouse

In 1984, the European Patent Office (EPO) received its first application for a patent of an animal: the genetically modified Harvard Oncomouse. Eight years later it granted a patent to the Harvard University researchers involved, a move opposed by an array of political parties, religious groups and environmental activists. The EPO ultimately upheld the patent in 2004 but ruled that it should relate to transgenic mice only, rather than all rodents.

Prometheus Laboratories, Inc v Mayo Collaborative Services

In March 2012, the Supreme Court ruled that Prometheus' patent claims related to ways of optimizing doses of certain drugs used to treat specific conditions were invalid because they relate to a natural phenomenon. The effect of the decision was to make it harder for developers of genetic tests to obtain patent protection.

and trends within the pharmaceutical industry. The dispute raises emotive issues relating to the ownership and control of genetic material just as pharmaceutical companies are desperate to obtain patent rights over medical innovations as the flow of blockbuster drugs dries up. The Court was asked to rule just as personalized medicine, offered via tests such as Myriad's BRACAnalysis, heralds a breakthrough in the delivery of healthcare but also as healthcare budgets come under greater financial pressure than ever.

THE QUESTION BEFORE THE COURT WAS WHETHER ISOLATED HUMAN GENES ARE PATENTABLE

The Supreme Court's nine justices took eight weeks to answer after hearing from both sides in the dispute. What they said was this: a naturally occurring DNA segment is a product of nature and, as such, cannot be patented. In contrast, so-called complementary DNA – an artificial product designed to mirror the coding parts of genes – is eligible for patent protection because it is not naturally occurring. "The lab technician unquestionably creates something new when cDNA is made," they said. The impact on would-be gene patent holders was clear: within hours, the USPTO issued a memo to its examiners instructing them to reject product claims drawn solely to naturally occurring nucleic acids, or fragments of them, whether isolated or not.

The Court's opinion, drafted by Justice Thomas, ran to just 18 pages. Its brevity was interpreted by some as a sign of the open-and-shut nature of the case; by others as evidence of the Court's failure to get to grips with the difficult issues raised by the dispute. There were complaints that the case-specific ruling offered little guidance as to how the law should be applied in other biotech wrangles.

"The opinion ... is remarkably short given the complex legal and scientific questions that were raised; it fails to clarify in any meaningful way the difference needed to change natural material into man-made material that is eligible for patent protection," lamented Jeffrey Lewis, president of the American Intellectual Property Law Association.

Myriad quickly sought to put a positive spin on the outcome of its four-year legal battle to protect its patent rights, announcing that the Supreme Court had upheld its patent claims on cDNA. Although conceding that the justices had ruled that five of its claims covering isolated DNA were not patent eligible, the company said it had more than 500 valid claims in 24 different patents over its BRACAnalysis test.

PLAINTIFFS DECLARE VICTORY FOR THEIR CAMPAIGN AGAINST GENE PATENTS

"The court rightfully found that patents cannot be awarded for something so fundamental to nature as DNA," said PATPUB's Dan Ravicher. Sandra Park of the ACLU Women's Rights Project declared that the nine justices had struck down a major barrier to patient care and medical innovation. "Myriad did not invent the BRCA genes and should not control them," she said. "Because of this ruling, patients will have greater access to genetic testing and scientists can engage in research on these genes without fear of being sued."

So what does the decision mean for biotechnology scientists? Opinion is divided. Some, such as Nobel prize-winning gene scientist John Sulston, believe that patents do little to stimulate research. Backing the lawsuit against *Myriad* in 2009, Dr. Sulston said that gene patents could have a "chilling impact on research, obstruct the development of new genetic tests, and interfere with medical care ... rather than fostering innovation".

Francis Collins, the director of the National Institutes of Health, followed up his elated "Woo Hoo!!" tweet on the day of the Supreme Court decision with a more measured response, calling the ruling a victory for those awaiting gene-based approaches to medical care. "The right to control exclusively the use of a patient's genes could have made it more difficult to access new tests and treatments that rely on novel technologies that can quickly determine the sequence of any of the estimated 20,000 genes in the human genome."

But Jim Greenwood, head of the US-based industry group BIO, said the decision represents "a troubling departure" from decades of judicial and USPTO precedent supporting the patentability of DNA molecules that mimic naturally-occurring sequences, adding that it could create business uncertainty for a broader range of biotechnology inventions.

That view was echoed by Courtenay Brinckerhoff of Foley & Lardner, who said that while the decision will have far-reaching and long-term implications for the biotech industry, the biggest immediate impact is the level of ambiguity it presents to scientists and their financial backers. "Although the Supreme Court seemed to draw a bright line between 'naturally occurring DNA' and 'cDNA', there are many other types of DNA constructs that are patented, such as short nucleotide probes and primers and iRNA constructs," she says. It is unclear whether or how *Myriad* will be applied to other areas of biotechnology, such as

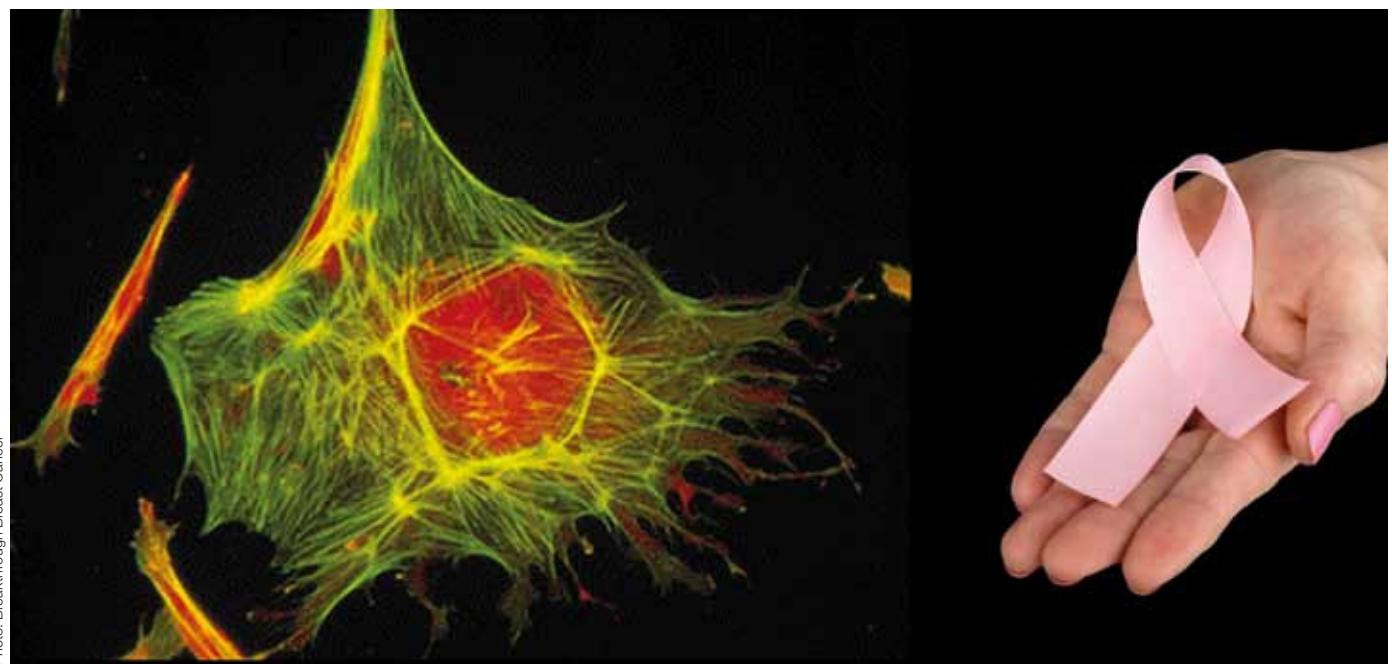


Image of a breast cancer cell (above). In the case involving Association for Molecular Pathology v Myriad Genetics the US Supreme Court addressed the issue of whether isolated human genes are patentable. In a unanimous decision, the nine presiding justices ruled that naturally isolated DNA is not patentable but that synthetic DNA, such as cDNA, is patentable.

proteins and antibodies, or to other pharmaceutical products, such as new chemical entities isolated from natural sources. Answering those questions will take years, noted Ms. Brinckerhoff, as the US Patent Office, Federal Circuit and Supreme Court develop a body of law around *Myriad*. "In the meantime, innovators, competitors, and investors must make important business decisions without knowing whether these types of patents will be upheld."

Ms. Brinckerhoff and other attorneys also argue that *Myriad* sets the US apart from its economic rivals when it comes to rules on patenting genes. The EPO, for example, will grant patents for inventions related to gene sequences as long as applicants can demonstrate the industrial application of the sequence. Australia, Canada and Japan have similar rules, allowing the patenting of human genes providing they are isolated and the patent application explains how the genes are useful. These jurisdictional differences mean that patent-chasing scientists will need to revise their IP strategies in the US. Now that USPTO examiners will no longer grant patents for isolated genomic DNA, biotech companies are likely to turn to trade secrets to protect their investments (a development that challenges the promise of the patent system – that disclosure is rewarded with a temporary monopoly). Whether they can keep their secrets secret will depend largely on the ability of rivals to reverse engineer their discoveries. Biotech companies such as

Myriad are also likely to guard more closely the valuable data they accumulate in the course of their research. Companies that already hold patents over genes will need to revisit their portfolios and consider abandoning patents rather than pay fees to maintain hollow IP rights. Businesses that have licensed-in patent rights may want to renegotiate the royalty rates.

But despite the challenges that the opinion has posed for the biotech industry, the company at the center of the ruling remains bullish. As patent owners and their lawyers mulled over the implications of the Court's decision, *Myriad* itself was busy preparing patent infringement lawsuits. Less than a month after the Supreme Court issued its opinion, the company sued two businesses that launched rival BRCA tests in June. It also watched as politicians called on the National Institutes of Health to use so-called march-in rights to force *Myriad* to license its BRACAnalysis patents. The battle over biotech is far from over. ♦



Design Indaba established in 1994 by Ravi Naidoo was initially conceived of as a conference to exchange ideas. It has become the biggest creative design platform in the southern hemisphere and now boasts a huge exhibition, a film festival and various music events. It has added an estimated 1 billion rand (some US\$10 billion) to the South African economy.

PERSPECTIVES ON DESIGN

*By Catherine Jewell,
Communications Division, WIPO*

YURI TRETCHIKOFF - EXPRES



Three big names in the world of design – Argentinian designer Adrián Cohan, Indian design educator, Darlie Koshy and South African design activist and founder of Design Indaba, Ravi Naidoo, came together at WIPO's Innovation by Design Forum in May 2013 to highlight the huge potential of design as a driver of innovation and wealth creation. The Forum took place on the sidelines of the Standing Committee on Trademarks, Geographical Indications and Industrial Designs (SCT), where WIPO member states are developing an international legal framework to simplify design registration procedures. The three panelists shared their unique perspectives with *WIPO Magazine*.

A DESIGNER'S PERSPECTIVE

Policymakers increasingly recognize the key role design plays in driving economic development and social progress, but what is it about designers and how they work that is attracting so much attention?

"Designers have a unique ability to interpret reality and the capacity to look at the same problems in a different way and come up with new solutions," Mr. Adrián Cohán explained.

"We add value by connecting the dots between what companies are able to make and what people need. It's about finding the best solution between the possible and the desirable," he said.

There is still some way to go however, before the contribution that designers can make in driving innovation, creating value and developing workable solutions to many tough social challenges is fully recognized. "The design profession is still a poor cousin," Mr. Cohan noted. "For a handful of companies, design is core to their business strategy, but for thousands of others it isn't," he said. Beyond an unjustifiable lack of formal recognition, Mr. Cohan explained that some of the toughest practical challenges facing designers arise from the complexity of the legal landscape. "I would like to see one law everywhere," Mr. Cohan said. "Making the system cheaper and easier to use would be good, but at [the] core you need a law that protects everything in a similar way with minimal scope for interpretation. That's not happening. Policymakers need to synthesize laws and procedures so they are easier to use."

AN EDUCATOR'S PERSPECTIVE

Simplifying the legal framework and streamlining design registration procedures is also on the mind of Dr. Darlie Koshy, Director General and CEO of India's Institute of Apparel Management and Apparel Training and Design Centre with its main campus in Gurgaon. Complex procedures mean that "designers do not have the understanding, the time or the money to secure the protection they need," he said.

India's implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), administered by the World Trade Organization (WTO), has increased awareness of the need for and use of the intellectual property (IP) system in India. However, "we are still at a nascent stage in terms of IP usage and our capacity is still very low, but with simplified, rapid procedures and lower registration fees this will continue to grow," he said.

CREATIVE ECOSYSTEMS BOOST ECONOMIC GROWTH

Commenting on the link between creative ecosystems and economic growth, he said that a country's competitiveness, economic progress and ability to improve living standards are increasingly linked to its capacity to innovate. For this reason, "we need to embrace IP to stimulate wealth creation and make a far greater impact on the value chain; innovation and design are very important elements in achieving this," he said. Regarding India's textiles and garment sector, which currently directly employs over 45 million people, he cautioned that, "unless we encourage small businesses to protect their designs they will not flourish. We are part of a global marketplace, and we need to create original designs for that market. In a globalized world, it is doubly important that small businesses use IP to protect their territorial presence." Engaging and expanding participation of the creative class to around 25 percent (from the current level of 14 percent) is key to securing the "multiplier effect" of the creative sector on the Indian economy he said.

Despite major improvements in India's design education landscape, Dr. Koshy underlined the need for policymakers and universities "to think about ways to encourage India's creators to create, protect, manage, monetize and enforce their IP rights. We need to move away from assembly-line schooling and allow people to think for themselves. Education needs to be more focused on leadership, entrepreneurship, design and innovation. We need to encourage risk and tolerate mistakes. In a risk-averse society, there is no innovation," he said.

A NEED FOR STRONGER UNIVERSITY-INDUSTRY LINKS

Stronger university-industry collaboration and the development of business incubators would enable stronger market-based design research, create employment and support university start-ups, he noted. He further underlined the benefits of embedding IP and industrial design cells in major academic institutions to help design students develop their ideas and commercialize them. "If you want to create a creative class, you need to encourage the creation of IP within design institutions and support the development of microenterprises, which can result in wealth creation. Students have good ideas, but they don't know how to take them forward. If they had someone to advise them, the scenario would really change," he said.

"Universities and policymakers need to look at the entire chain – creating, protecting, managing, monetizing and enforcing IP," he said. "Our job is to make simplicity out of complexity and bring that simplicity to the layman so that small inventors in villages across India understand they can earn money from their work, and are doing something important for the country. When such consciousness is widespread, a society becomes innovative." Vocational training to relieve skills shortages and the availability of practical IP-related information to support creators in protecting and leveraging their work are also essential.

Looking forward, Dr. Koshy underlined the increasingly collaborative nature of design. He further highlighted an emerging trend - the rise of the new Chief Emotion Officers (CEOs) whose role is to develop strategies to create an emotional connection with consumers. "Every manufacturer wants their product to stand out in the minds of consumers, because mind share leads to market share and profitability," he said. "People want to reignite their lives, so products have to become services and services have to become experiences. This transformation is the key to design success. No product today is without service, and no service can exist today without experience. In linking these, designers become very effective creatures," he stresses.

A DESIGN ACTIVIST'S VIEW

For Mr. Ravi Naidoo, Managing Director of Interactive Africa in Cape Town and founder of the internationally-renowned Design Indaba, design goes beyond consumers and is, more broadly, about servicing community needs. "Design is a vital component of the economy, and it plays a crucial role in enabling us to reimagine our societies," he said.

"Creativity is the ultimate renewable resource. In a world that is resource-challenged, you will always have an idea. There is never a bad time for a good idea," he said pointing to economic benefits flowing from the creative industries globally. "Design can give you a competitive advantage and can be a unique differentiator for the economy."

"Ideas are currency and a country's most valuable capital. The real estate between your ears is vital," he said, noting "the real gold is not mined three kilometers below Johannesburg; the real gold is walking on the streets of Johannesburg."

DESIGN INDABA - CREATING A BUSHFIRE OF CREATIVITY

In 1994, at the dawn of democracy in South Africa, and convinced of the transformative power of creativity, Mr. Naidoo set up Design Indaba. Initially a conference to exchange ideas, Design Indaba has become the biggest creative design platform in the southern hemisphere and now boasts a huge

exhibition (with 487 exhibitors from South Africa), a film festival and various music events. This annual event has added an estimated 1 billion rand (approximately US\$10 billion) to the economy and is now firmly established on the global design circuit. "Design is going to continue to play a huge role in South Africa's economy and is also going to help solve some of our most vexing problems," Mr. Naidoo said. "There is vibrant, intelligent life in Africa, and people are getting up early in the morning, pedaling hard and producing some amazing things."

Design Indaba brings together the world's creative leaders to "create a 'bushfire' of creativity," Mr. Naidoo explains. "We want to crank up Africa, give it a stretch by exposing its people to the best of the class in every sector of creative endeavor. We want to inspire a new generation of African innovators" The Expo creates opportunities for indigenous people to learn about IP and to work with top designers, using their traditional skills to create high-value products and offering a way for Africans to "sell their wares to the world," Mr. Naidoo said.

SOUTH AFRICA EMERGES AS A CREATIVE HUB

South Africa is fast becoming a creative hub. "We are not only starting to generate creative products for ourselves but we are starting to share and sell them to the world," he said, pointing to growing international recognition that South Africa is a "creativity outsource hub", the place to go for quirky and imaginative content. The Design Indaba team is now working with its international partners to establish similar platforms in other cities, including Amsterdam and Shanghai. Such is the power of example.

DESIGNING SOLUTIONS TO SOCIAL PROBLEMS

As proof of how design can improve lives, the Design Indaba team set a number of challenges to address acute social problems, such as low-cost housing. "We corralled the world's best architectural brains to help 'crack the code' for low-cost housing," Mr. Naidoo said. The resulting dwellings have been built in a squatter settlement in Cape Town and are now being built elsewhere in Africa.

Similarly, through its "Your Street Challenge" initiative, which is running in eight cities around the world, Design Indaba encourages designers to go into their streets and imagine ways to improve the quality of life of those living in them, in return for a grant to make the project happen. "There have been some amazing results. There is lots of scope for creativity and design to be used in a more civic-minded way, and to improve existing infrastructure," said Mr. Naidoo, explaining that he believed such challenges are an effective means of encouraging change and promoting excellence.

Advice for young designers starting out:

Adrián Cohan: "Design is not an art. It's a profession, and you need to be passionate about design to overcome the problems that arise. You need to get really involved in it if you want to succeed."

Darlie Koshy: "Designers should stay away from copying at all costs and believe in originality even if success is delayed or a flood of work does not come their way. To succeed, designers need to know their customers and the materials they work with. It is a tough profession. Even a small mistake can completely damage a product and eventually cause irreparable harm to a designers' reputation."

Ravi Naidoo: "Out of the deeply personal comes the universal. Solve your problem, solve the problem on your street and you may find that your solution is relevant to 10,000 streets. When you design for 10,000 streets, you design for no street, but when you design for your street, it could be applicable to 10,000 of them." ♦



Photo: Shy The Sun

South Africa is fast becoming a creative hub and is enjoying increasing international recognition as an outsource hub for creativity. For example, Shy The Sun, a quirky, creative production company or "concept shop" was approached by United Airlines to produce their fantastical Sea Orchestra animation to launch its new international first and business class cabins.

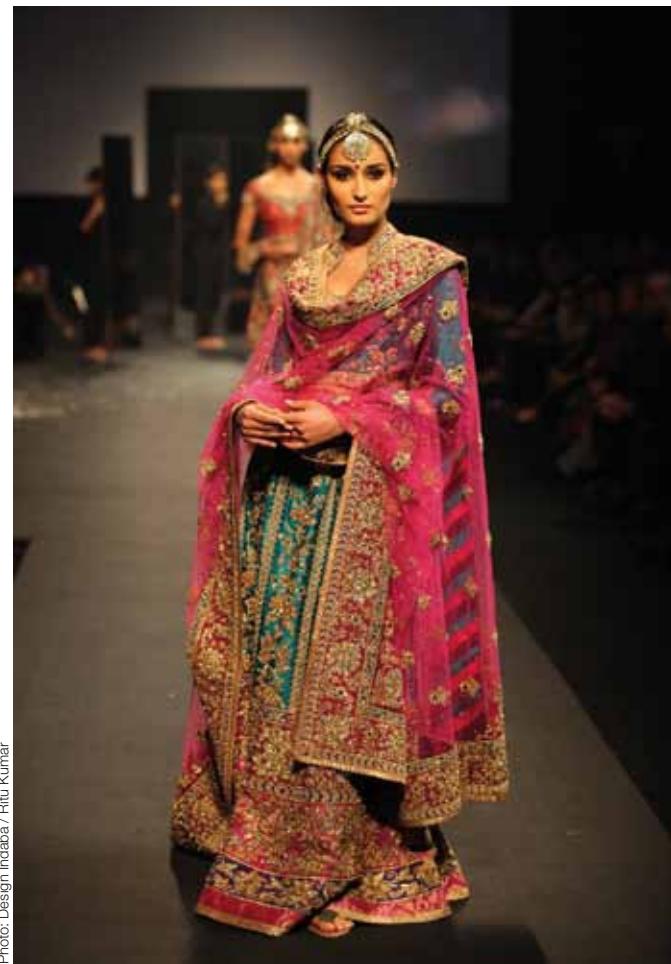


Photo: Design Indaba / Ritu Kumar

India's textile and garment sector currently directly employs over 45 million people. Awareness of the need for and use of IP within the sector has increased but remains low. Indian fashion designers who have successfully protected their designs in the courts include Ritu Kumar (design featured above).



Photo: Design Indaba / Wieland Gleich

To demonstrate how design can improve lives, the Design Indaba team challenged the world's best architects to help develop affordable low-cost housing. The resulting dwellings have been built in a squatter settlement in Cape Town and are now being built elsewhere in Africa.



Photos: Design Indaba / Adrián Cohan

Every man-made object from a security seal to a water valve has been designed by someone, somewhere. Designers have a unique ability to interpret reality and look at the same problems in a different way and to come up with new solutions.



Photo: Design Indaba / Adrián Kuiters

Design Indaba is inspiring a new generation of African creators. The country's flourishing design sector is starting to have a significant impact on the economy.



Photo: Design Indaba / Jonix Pillemer

Design Indaba's Expo creates opportunities for indigenous people to learn about intellectual property and to work with top designers, using their traditional skills to create high-value products and offers a way for Africans to sell their wares to the world.

POLISH DESIGN: a metamorphosis

By Czesława Frejlich,

*Professor, Academy of Fine Arts, Krakow
and Academy of Fine Arts, Warsaw and
editor-in-chief of 2+3D design magazine.*

Until recently, Poland was not perceived as a country with a strong design sector. Poles themselves were quick to admit that this was not the strong suit of our economy. A brief look at Poland's post-war history offers some explanation. In the 1950s, the economic focus was on rebuilding our industrial sector with emphasis on heavy industry and mining. Amid efforts to boost the country's consumer products industry in the 1960s, Polish industrial design was reborn. This was, in large part, due to the efforts of the Institute of Industrial Design and the creation of a number of new design schools, but is also attributable to the successes of designers who broke through the "iron curtain" which had precluded professional contact with designers from the West. This resurgence, however, was short-lived. A lack of competition in the market in the 1970s and the widespread practice of purchasing Western licenses for new technologies, and product models, hampered the work of Polish designers. By the early 1980s, during the Martial Law period in Poland, things had almost come to a complete standstill.

SIGNS OF CHANGE

With Poland's transition to democracy after 1989, the country's focus was on learning the ropes of the new economy, primarily in the area of trade. Industrial design was not an immediate priority. The first visible signs of change came about in the early 2000s, with the emergence of a number of large companies that had grown from small family initiatives. These companies were slowly finding their feet in the national market, elbowing out cheap foreign imports. The introduction of modern technologies and exposure to new management, promotional and sales techniques as a result of subcontracting services for Western companies also made a significant impact on the sector's development. In a relatively short period, we saw the evolution of home-grown furniture companies such as Bälma, Vox, Profiem, and Comforty. By 2011, Poland was ranked fourth in the world for furniture exports (according to United Nations statistics for 2011 - see <http://tinyurl.com/o3xc5l7>). Companies like Solaris (buses), and Pesa and Newag (the rail industry) and Reserve, House, and Ryłko (clothing) were also competing in international markets with growing confidence.

GROWING AWARENESS OF THE ROLE OF DESIGN IN BUSINESS

While the dynamic economic growth rates of recent years have slowed as a result of the current global economic crisis, the average is still on the plus side. Producers who have thus far



Photo: WIPO/Bertrand

The Structure Chair designed by Massive Design's Przemysław Stopa for leading Italian manufacturer of design furniture, TONON.

competed with low prices have come to understand that they cannot lower their prices any further and are in search of new ways to secure a competitive advantage. Many have come to understand that design is the most obvious tool for boosting sales and have sought out new designs to call their own.

Until recently, copying a good foreign product (in a slightly altered form to avoid legal difficulties) was regarded as a legitimate and effective commercial strategy. The success of a growing number of well-designed products over the last two years, however, suggests that such an approach is not only considered to be unethical, but is also short-sighted and unprofitable. Growing success in national and international design competitions, such as the international Red Dot Design Award is fuelling international recognition of Polish design. Since 2008, when Polish designers Magda Lubinska and Michał Kopaniszyn of Moho Design were awarded for their mohohej!DIA carpet, Polish companies have won thirty awards, of which twelve in 2012. In May 2013, Polish winners of this prestigious award took pride of place in an exhibition co-organized by the Polish Patent Office at WIPO.

POLISH DESIGN ATTRACTS THE SPOTLIGHT

In recent years, the industrial design sector has benefitted from the active support of the Polish government. It was identified in the national development strategy for 2007 to 2013 as an area qualifying for financial support, mainly through European Union (EU) grants. Such targeted support has served to significantly improve design education, giving rise to design mentoring services and the creation of design centers across the country. These include, the Gdynia Design Center, Concordia Design in Poznan, Design Center Kielce, the Center for the Promotion of Fashion, and the Center of Arts and Sciences in Łódź. Private design schools have also emerged in Kielce, Łódź, Poznan, and Szczecin, among others, and new design study programs have been introduced as part of the curriculum of state schools. Recently acquired EU funds will be used to forge closer university-industry links, including in the area of industrial design.

Government support has also played a key role in encouraging a wide range of promotional activities, including numerous



exhibitions, conferences and debates, which are shining the spotlight on Polish design, both at home and abroad. Some activities planned within the national development strategy, however, were not entirely successful. While employers did not receive the financial support to develop or acquire new industrial designs they had hoped for, many found the resources to continue investing in design and are now enjoying the commercial benefits of having done so. In less than 10 years, the number of industrial design applications filed by Polish applicants with the Polish Patent Office and the Office of Harmonization for the Internal Market (OHIM) has more than doubled. In 2003, these offices received 2,002 design applications; in 2012 this figure rose to 4,470 indicating growing recognition of the importance of protecting designs.

The greatest impact in terms of raising the international profile of Polish design has resulted from the widespread promotional activities that are being organized. Within Poland, such events include the Łódz Design Festival in October (in its seventh year), Arena Design in Poznań in March, (in its fifth year) and Gdynia Design Days in July, (in its sixth year). This is in addition to numerous presentations in galleries and commercial shows throughout the year. Abroad, promotion of Polish design mainly falls to the Adam Mickiewicz Institute and the Ministry of Foreign Affairs which work together with the numerous Polish Institutes scattered around the globe, such as those in Berlin, Budapest, London and Stockholm. This year, for example, Polish designers showcased their work at the Milan Design Week and the DMY International Design Festival in Berlin. Participation in other major international design events, such as Paris Design Week and 100% Design at the London Design Festival are also in the sights of the Polish design community.

SHIFTING ATTITUDES

In recent years there has been a dramatic shift in attitude to design in Poland. Public and private institutions alike are seeking out opportunities to promote the country's prowess in this field fuelling a groundswell of public support. Until recently, Polish designers were operating in a tough landscape. Their main customers, those willing to pay top prices for high-quality products, had little faith in Polish designers and often sourced their products from abroad. The less wealthy were not inclined to pay more for a new product and tended to buy cheaper items, even if the quality of the design was inferior. Thanks to improved living standards, however, this situation has changed. Research by Tomasz Wiktorowski in 2011 on the furniture industry in Poland found that the average Pole is now willing to pay 20 percent more for a better product. This shift can be attributed to the growing aspirations of young people whose exposure to design in other parts of the world via the Internet, study and travel, is driving demand for high quality and well-designed products.

This positive change in attitude towards design is also rekindling interest in the country's design heritage. A growing number of academic and popular titles are emerging on the subject. Auction houses are also recording high prices paid by collectors for legacy designs. The younger generation has come to appreciate earlier designs, especially those dating from the 1960s. These are being unearthed from family attics and reused. This spirit of nostalgia is visible in a number of contemporary designs, as an inspiration or a quotation. In some instances, contemporary designers are giving old designs new life by simply reusing them. The fact that some 35,000 people visited the exhibition entitled *We Want to Be Modern: Polish Design from 1955–1968* from the Collections of the National Museum in Warsaw in 2012 is indicative of the scale of public interest in Polish design. ♦



Photo: WIPO/Berrod

In May 2013, Polish winners of the prestigious Red Dot Design Award took pride of place in an exhibition co-organized by the Polish Patent Office at WIPO. Pictured above is the Mohohej!DIA rug designed by Magdalena Lubńska and Michał Kopaniszyn of Moho Design.



For more information contact WIPO at
www.wipo.int

34, chemin des Colombettes
P.O. Box 18
CH-1211 Geneva 20
Switzerland

Telephone:
+4122 338 91 11

Fax:
+4122 733 54 28

WIPO Magazine is published bimonthly and distributed free of charge by the World Intellectual Property Organization (WIPO), Geneva, Switzerland. It is intended to help broaden public understanding of intellectual property and of WIPO's work, and is not an official document of WIPO. Views expressed in articles and letters by external contributors do not necessarily reflect those of WIPO.

For comments or questions, contact The Editor at WipoMagazine@wipo.int. To order a print version of the WIPO Magazine, contact publications.mail@wipo.int.

Copyright ©2013 World Intellectual Property Organization

All rights reserved. Articles contained herein may be reproduced for educational purposes. No part may, however, be reproduced for commercial purposes without the express written consent of the WIPO Communications Division at the above address.