

WIPO MAGAZINE

MARCH 2022

No. 1



From idea to industry:
amplifying the voices of the next
generation

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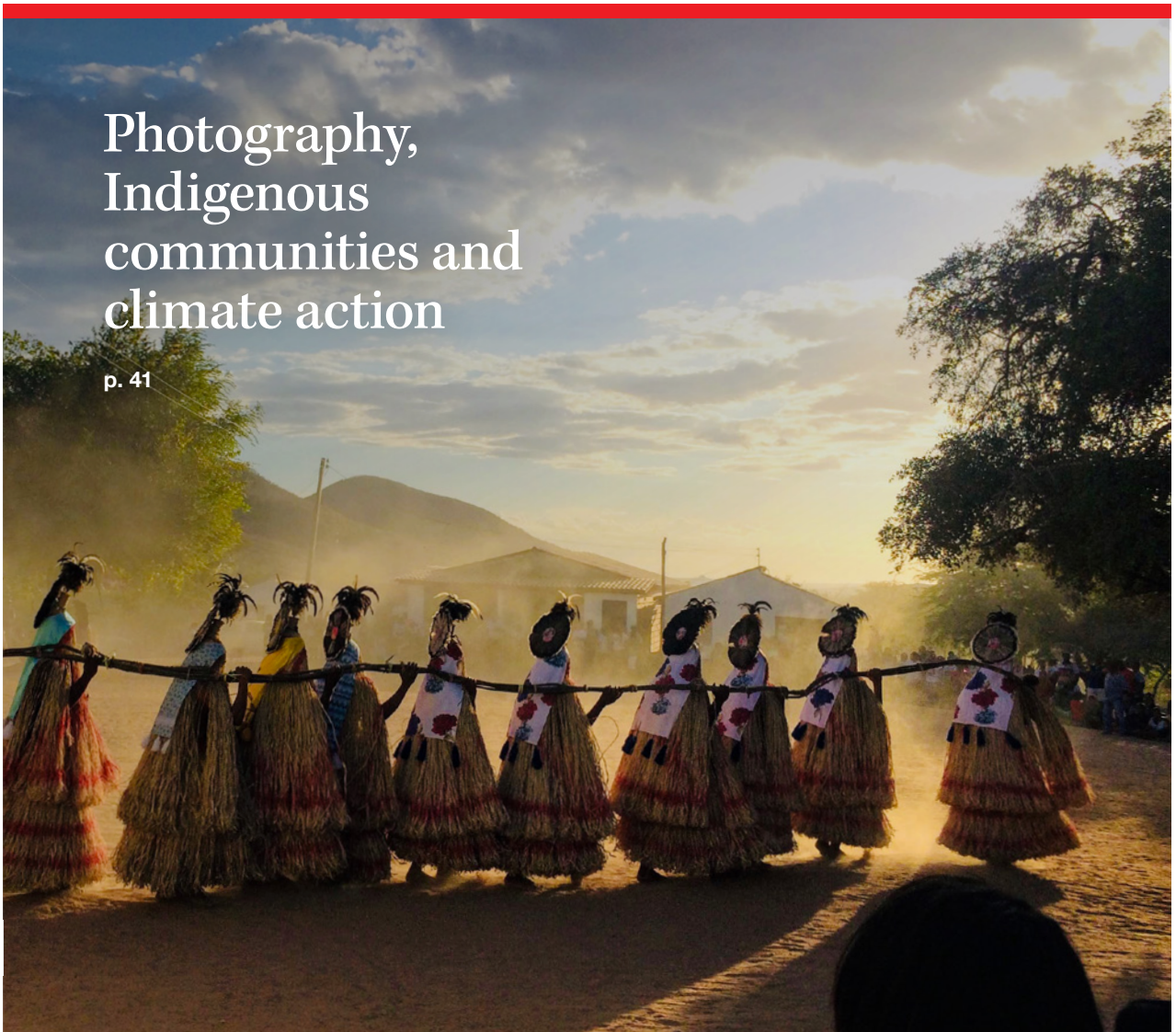
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Dear Readers,

We are pleased to inform you that from January 2023, the WIPO Magazine will be moving to a digital-only format. Curated quarterly editions of the WIPO Magazine will continue to be available in PDF format for those who wish to print-on-demand.

This move will enable us to provide you with a more regular stream of content on topical issues relating to IP, innovation and creativity. It is also in line with the Organization's commitment to reduce its carbon footprint.

Please sign up for your digital version of the WIPO Magazine at: https://www3.wipo.int/newsletters/en/#wipo_magazine

The youth of today are an incredible and largely untapped source of ingenuity and creativity. Their fresh perspectives, energy, curiosity and “can do” attitude, not to mention their hunger for a better future, are already reshaping approaches and driving action for innovation and change.

World Intellectual Property Day 2022 (on April 26) is an opportunity for young people to find out how intellectual property (IP) rights can support their goals, help transform their ideas into reality, generate income, create jobs and make a positive impact on the world around them. With IP rights, young people have access to some of the key tools they need to advance their ambitions.

For more information, check out the World Intellectual Property Day 2022 web page at www.wipo.int/ip-outreach/en/ipday. Get involved. Why not organize a World Intellectual Property Day 2022 event in your local community?

Join us on Twitter (#worldipday), Facebook (www.facebook.com/worldipday) and Instagram (@wipo_ompi) and share your ideas and views on IP and how you and other young people are innovating for a better future.



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Acknowledgements:

- 26 **Oswaldo Girones Jorda**, Division of Latin America and the Caribbean, WIPO
- 30 & 45 **Marcus Höpperger**, Brands and Designs Sector, WIPO
- 36 **Marcus Höpperger**, Brands and Designs Sector, and **Paolo Lanteri**, Copyright Law Division, WIPO
- 41 **Wend Wendland** and **Anna Sinkevich**, Traditional Knowledge Division, WIPO

Editor: **Catherine Jewell**

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Now's the time for young people to switch on to IP

By **Nadine Hakizimana** and **Edward Kwakwa**,
Global Challenges and Partnerships Sector, WIPO



Photo: Gonzales Photo / Alamy Stock Photo

“Do it for the culture, they gon’ bite like vultures,” echoes the fundamental purpose of a balanced IP system, namely to encourage innovation and creativity to serve the interests of all people and is a worthy entry point to engage with young people on IP.

If you think about it, intellectual property is everywhere. It’s even in Quavo, the rapper’s, lyric: *“Do it for the culture, they gon’ bite like vultures”*, from the song, T-Shirt by Migos. In this song, the rap trio, which includes, Quavo, Offset and Takeoff, pays respect to “the culture”, that is, hip-hop culture, an important driver of black empowerment, which has become a global movement, influencing fashion, language, graffiti, breakdancing, spoken-word poetry and more. Creating music “for the culture” means pushing the boundaries of creativity by making new sounds for the enjoyment of people, everywhere. The value of community is central to this idea. Migos also refers to the unspoken disdain for “biting”, which relates

to the act of repurposing samples of another artist’s work without giving credit. Contempt for “biting” flows from the value hip-hop musicians place on originality and their commitment to advancing and refining their craft. Intellectual property (IP) is all about originality – we don’t “bite.” As hip-hop fans would say, “IP is lit!”

Quavo’s lyric echoes the fundamental purpose of a balanced IP system, namely to encourage innovation and creativity to serve the interests of all people. By recognizing and rewarding creators and inventors for their work and ensuring we have access to their outputs, the global IP system helps to catapult society forward,

economically, socially and culturally for all our benefit. This makes Quavo's lyric a worthy entry point to engage with young people on how the IP system can support their ambitions.

INTELLECTUAL PROPERTY IS FOR YOUTH

The expanding levels of interconnectivity we enjoy today are opening up exciting opportunities for creative expression, making it easy for young people to be consumers and creators of IP.

By switching on to IP, young people can find out how to safeguard their own interests and avoid infringing the rights of others. The IP system and the rights (see p.4) it confers enable young people to turn their ideas and talents into valuable economic assets. In other words, they can generate income from their ideas, and can continue devoting their time and energy to honing their talent. They can even build a business around their ingenuity and create jobs, supporting their local community and national economic growth.

Today, globally, 90 percent of business value flows from intangible assets according to financial specialists Ocean Tomo. This explains why many countries, especially developing economies, are working to boost economic growth by fostering the development of high-value knowledge-based industries. Because IP rights make it possible to protect and leverage the value of the intangible assets that underpin knowledge-based economies, IP will become ever more present in the lives of young people.

YOUTH DEMOGRAPHICS

Africa is the world's youngest continent with 70 percent of the population under the age of 25. While a huge opportunity for African countries to build a better future, it also presents significant challenges for policymakers. Spiraling levels of youth unemployment – roughly 73 million of the world's 3 billion young people are unemployed, according to the International Labour Organization (ILO) – as well as economic migration and the “brain drain” that comes with it, are major policy challenges with far-reaching social and economic consequences. Channeling the ingenuity and energy of young people to tackle local challenges and foster national economic growth will help create better jobs and better prospects for youth.

IT'S TIME TO UNLOCK THE YOUTH POTENTIAL

The youth of today are a rich and largely untapped source of ingenuity and creativity. Their fresh perspectives, energy, curiosity, “can do” attitude, and hunger for a better future, are already reshaping approaches and driving action for innovation and change.

Having grown up as digital natives, today's young generations are arguably the most entrepreneurial, innovative and creative yet. Many are putting purpose before profit with ventures to tackle the big challenges of our time – climate change, access to health, food security, education, unemployment and more. But establishing a sustainable venture is a journey with many challenges. One that a

WIPO's Youth Program

In 2021, Director General Daren Tang presented WIPO's Medium-Term Strategic Plan (MTSP) 2022–2026 to member states, which highlights the role of youth.

“Youth will also be a focus of our attention. They are our future innovators, creators and entrepreneurs, and represent a large percentage of the population in many developing countries. We need to ensure that they understand how IP is connected and relevant to their lives and support their aspirations, whether it is to earn a livelihood through innovation and creativity, or to address global challenges.”

In February 2022, WIPO welcomed its first cohort of young professionals under the WIPO Young Experts Program. They will spend two years at WIPO's Geneva headquarters to broaden their IP knowledge. They will become the IP leaders of tomorrow.

WIPO also offers young IP practitioners an avenue to network with over 600 like-minded members and to benefit from training opportunities on IP and alternative dispute resolution through the WIPO ADR Young Program.

Going forward, there is great scope for young people to get involved in WIPO's activities and ensure that the global IP system continues to keep pace with the changing realities of a technology-driven world. Over the coming months, WIPO, and its partners, will be rolling out a series of exciting youth-focused initiatives and training programs. Stay tuned!

How the IP system supports innovation and creativity

Different rights protect different types of IP such as inventions, designs and creative works. In general, these rights serve one main purpose: to encourage more innovation and creativity by making sure that innovators and creators can gain a fair reward for their work and earn a living from it.

IP rights allow rights holders to stop other people from copying or using their IP without their permission. This means that rights holders are able to charge a reasonable price for using IP that is economically valuable. The prospect of an economic reward encourages people and businesses to invest in developing useful innovations and creations.

Most IP rights last for a limited time, and can only be acquired when certain conditions are met. There are also rules that allow for the use, under certain limited circumstances, of different types of IP without first having to obtain the right holder's permission. These arrangements help ensure that there is a balance between the interests of innovators and creators and those of the general public, so that everyone benefits from IP.

sound knowledge of IP can help young people navigate by enabling them to safeguard their IP assets (i.e. their innovations and creations), leverage their value and amplify their impact.

Recognizing these challenges, WIPO is working with member states to develop national IP and innovation ecosystems that enable inventors and creators to thrive by, for example, empowering businesses to maximize their potential using IP.

Much good work is being done to ensure national IP systems and services are affordable and accessible. However, raising awareness about how IP can help young people, remains a challenge. That is why the theme of this year's World Intellectual Property Day campaign is *IP and Youth: Innovating for a Better Future*.

The campaign is an opportunity for young people everywhere to find out how IP rights can help them transform their ideas into reality, earn a living from them, create jobs and build a better future. With IP rights young people have access to some of the key tools they need to advance their goals.

WIPO recognizes that young people are key agents of change and can help solve present-day challenges and build effective global partnerships to shape our future. That is why youth engagement is now an important focus of the Organization's work. Through our new youth engagement activities, we will draw young people into international IP debates, and show them how IP can support their endeavors to shape it into the world they want to live in.

YOUNG CREATORS ARE MAKING A DIFFERENCE

Countless young people in all regions are already feeding the innovation ecosystem in remarkable ways. Take 18-year old Thato Khatlanye, from Mogwase township in Rustenburg, South Africa. She developed an innovative local solution to tackle the global challenges of energy scarcity and poverty-driven unequal access to education. Using repurposed plastic, she has created a durable school bag embedded with solar technology. It offers schoolchildren a more robust bag for their books and more importantly, access to solar-powered lighting in their homes so they can study risk-free after dark. Thato's innovation won her the Anzisha Prize, Africa's "biggest award for innovative young entrepreneurs."

Two Hong Kong-based students, Sun Ming Wong, and Kin Pong Li, created a hand-sanitizing door handle, a glass tube with an integrated LED light and an outer layer coated in titanium oxide. The LED light activates a compound in titanium oxide that kills 99.8 percent of bacteria. The door handle is energy efficient, making use of kinetic power, generated from the movement of the door. Originally inspired by the SARS outbreak of the 2000s, their invention found renewed relevance in the on-going COVID-19 pandemic winning them a James Dyson Award in 2019.

Similarly, in early 2020, motivated by the urgent need to strengthen the acute-care capacity of Kenyan hospitals a group of engineering and medical students from Kenyatta University in Nairobi, built the country's very first ventilator. It is affordable and meets international standards. They now produce around 100 ventilators every month. With the help of the Law Society of Kenya, the students filed for a patent with the Kenya Industrial Property Institute.

Photo: Courtesy of UNAM, Mexico



Xóchitl Guadalupe Cruz López from Mexico invented a solar-powered water heater called the Warm Bath using recycled materials. It offers her local community access to an affordable and sustainable source of warm water.



Photo: Courtesy of the Dyson Foundation

Sun Ming Wong and Kin Pong Li's self-sanitizing door handle is a cost-effective alternative to other chemical-based cleaning processes.

Photo: Courtesy of the Anzisha Prize



Thato Khatlanye, from the Mogwase township in Rustenburg, South Africa, developed upcycled plastic school bags embedded with solar technology for local schoolchildren enabling them to study after dark.

In 2020, a group of engineering and medical students from Kenyatta University in Nairobi, built the country's first ventilator to strengthen the acute-care capacity of Kenyan hospitals.

Photo: David Kinuthia, Kenyatta University, Nairobi, Kenya



An incredibly gifted 8-year old named Xóchitl Guadalupe Cruz López from Mexico, invented a solar-powered water heater using recycled materials. At around USD 13 each, her so-called *Warm Bath* offers an affordable heating source for the resource-constrained rural community of San Cristóbal de las Casas, where she lives. The *Warm Bath* offers an environmentally friendly alternative to firewood, the burning of which creates serious respiratory problems for local householders. In 2018, Xóchitl became the first child to win the prestigious *Reconocimiento ICN a la Mujer* prize from the Institute of Nuclear Sciences of the National Autonomous University of Mexico (UNAM) for her extraordinary work.

These are just some of the myriad examples of young people stepping up to tackle the huge challenges facing their communities and our planet. We need to encourage and enable young people to use their ingenuity and creativity to build a better future. That's why policymakers everywhere need to listen to their concerns and develop policies and programs that nurture and support them.

THE CHALLENGES AHEAD

Progress in harnessing the huge potential of the world's youth to build a better future, requires answers to some tough questions and effective policy responses. Why are economies unable to offer young people the opportunity to become economically active citizens? How do we enable them to live independent and creative lives that support economic and community development? How do we equip them with the knowledge and skills they need for the jobs of tomorrow?

Today, as in the past, young people are demonstrating their capacity to mobilize and galvanize support for change. Young people are moving the dial on climate action, pollution and other burning social issues from "Me Too" to "Black Lives Matter". Young people are standing up for a better world and many are investing their time and energy in developing the cutting-edge inventions and innovations that will shape our future.

This takes us back to Quavo's lyric and the parallel we drew with the IP system; a reminder that the IP system is designed to encourage more innovation and creativity by making sure that innovators and creators can gain a fair reward for their work and earn a living from it.

SUMMING UP

The innovative potential of the world's young people is a largely untapped resource that can help drive the changes we need to move to a more sustainable footing. Now is the time for young people to switch on to IP and to find out how IP rights can enable them to turn their ideas into reality. Now is the time for policymakers everywhere to support young inventors and creators and ensure they have the IP knowledge and tools they need to translate their vision of the future into reality. Our future depends on it.

The young people of today are our greatest hope for a better tomorrow. As noted by American National Youth Poet Laureate Amanda Gorman, in *The hill we climb*, which she recited at President Biden's inauguration in 2021, "*There is always light, if only we are brave enough to see it, if only we are brave enough to be it.*"



Photo: WIPO/Berrod

In February 2022, WIPO welcomed its first cohort of 11 young professionals under the WIPO Young Experts Program.

From idea to industry: amplifying the voices of the next generation

By **Roxanne Peters**, IP Education Specialist,
Creative and Cultural Industries, University of
Arts, London, United Kingdom

The COVID-19 pandemic has had an immeasurable effect on the global economy, the fabric of our society and our sense of being. We are more connected than ever and are adjusting to the acceleration of digital transformation to create, communicate and consume. The pandemic has also been an opportunity to reflect on how to think smarter, do things better, and be more conscious of the decisions we make for our future selves and wider societal and environmental benefit.

The urban economist Richard Florida notes that:

“ ... the “creative class,” including designers, artists and high-skilled intellectual workers, acts as an engine of innovation and urban development, structuring creative hubs and networks for the economic, social and cultural development of their native cities and regions.”

For the creative and cultural industries, the pandemic has highlighted “the precarious nature of artists’ work,” and their vulnerability “to the economic shocks caused by the crisis.”

For those already employed or starting their business, it is a critical time to identify ways to safeguard, survive and, for some, to start afresh. But what about the next generation of change makers, innovators and thought leaders? How can they prepare for the real-world scenarios they want to address and what responsibility do educators have to help amplify their voices?

FACING THE FUTURE OF CREATIVE PRACTICE

At a crucial time in their professional development, emerging creatives have had to adjust to new ways of engaging with educators, less studio time for their practice, with opportunities to build connections through organic conversations reduced. Yet these ongoing constraints have also encouraged innovative ways to cultivate co-creative practices and new beginnings, which is encouraging.

Creatives increasingly work in interdisciplinary and international ways; the ability to build communities and learn from each other is more accessible than ever. Collective thinking and doing is shaping the future. Collaborative practice is intrinsic to cultural production.



Ashwini Deshpande is a designer and technologist. She founded Art-Z software, which uses artificial intelligence to reduce fabric wastage at the pattern-cutting stage, with the aim of achieving zero waste.

The “digital” in this context is a tool to communicate, a platform to promote, or a solution to a problem.

Within this dynamic of global practice, intellectual property (IP) is a vital asset for innovation, economic growth and sustainable futures. Like an invisible business partner, it oils the wheels of trade, and encourages creative and cultural exchange. It also has the potential to play an important role in human-centered and socially conscious initiatives.

IP intersects design, innovation and technology. The rising importance of intangible IP such as tacit knowledge, and the ethical and economic considerations of protecting traditional cultural expressions in different parts of the world, has encouraged more focus on IP within business. This, together with the strength of small business networks, indicates that there has never been a more critical time to embed IP thinking into creative enterprise education.

IGNITING POSITIVE CHANGE THROUGH IP EDUCATION

To date IP education has been largely reserved for teaching future law professionals. Only with the recent growth and recognized value of the creative economy has any consideration been given to embedding IP education within interdisciplinary courses for business, innovation and enterprise. Notable global efforts to embed IP education within non-legal courses are found in Japan, which introduced legislation in 2002, requiring “universities and similar institutions to promote education and learning on intellectual property”. And in Australia various universities offer an *Issues in Intellectual Property* unit.

The University of Arts, London (UAL) tops the ranks in the UK for the number of graduates starting a business. It is a leader in creative enterprise education and encourages its international students to recognize the value of their creative agency in practice. It offers financial and business support for accelerator and incubation programs and creates interventions with leading industry partners.

UAL’s small IP education team connects with students and graduates to help them build self-confidence and make informed decisions when creating and collaborating with others. Rather than being knowledge-led within a teaching framework, their unique approach to support and guide recognizes the importance of responding to how creatives are motivated and helps them to problem-solve. It recognizes the potential of IP in two key areas.

First, IP plays an active role within a practice-led space where creatives learn by doing, encouraging the critical thinking required to move from an idea to innovate and make an impact in a global market. Second, it is integral

to developing a business strategy, and to identifying and protecting an individual's values and ethos, their responsibilities and reputation.

This approach is embodied in an e-learning IP resource, designed with UAL creatives for the next generation. It brings together the voices and experiences of those in the early stages of developing their professional practice, together with a space to self-reflect and understand how IP plays an active role in defining the future of the way we live as well as identifying revenue streams and sustainable practice.

REIMAGINING AND REDESIGNING FASHION

Different types of rights such as copyright (creative works), trademarks (brand and reputation), design rights (shape) and patents (inventions), protect different types of innovation and creative production. Importantly for creatives, copyright protects the expression of an idea – not the idea itself – such as an artwork or a website design. When deciding which IP right to use, it's therefore important for creatives to consider what they want to safeguard, why and how.

Many of the ideas students have in creative practice extend beyond traditional business models where financial gain is the primary driver. They can encompass social entrepreneurship, ventures that seek to solve social or cultural issues and green entrepreneurship, which can lead to a positive impact on the natural environment using sustainable processes.

A call for action within the creative industries is perhaps most visible in reimagining the future of fashion. A philanthropist and advocate for climate change and sustainability, menswear designer Bethany Williams acknowledges that fashion “encompasses all industries from agriculture to communications, so it has a huge impact on the planet, producing 80 billion new garments each year and employing one in six people on the planet.

Ellen Rock, a London-based fashion and textiles designer uses her vibrant prints as a voice to collaborate with global communities on artisan-led products and projects. She perceives IP as “integral to the progression and development of the brand.”



Photo: © Janakpur Women's Development Centre



“As collaboration lies at the heart of creative practice, it is essential that IP is considered within this space.”

Conversely, at a time when the fashion industry's profits dropped by an estimated 93 percent in 2020, companies are rethinking their business models, streamlining their operations and realigning their position in response to consumer behavior.

Fashion education offers a space for the next generation to connect with global technology and business innovations, and use their intuition and imagination to guide the industry towards more sustainable, transparent and inclusive practices.

From an IP perspective, considerations for those starting out in the fashion business can range from understanding how copyright law works for fashion communication and increasing the visibility of brand identity to recognizing the intangible IP in insights, methodologies and services. At the stage of ideation, it is often about having clarity about who owns what when working with technologists, scientists and other industry experts to help make an idea a reality, and ultimately turn it into a scalable business.

The following case studies give an insight into some of the IP-related elements students and graduates have to consider as they transition from education to industry and from an idea to the market.

Ashwini Deshpande (@aforashwini) is a designer and technologist who graduated from London College of Fashion in 2021. She believes that "technology is the future of every industry and needs to make a difference in creating a circular industry". She founded Art-Z software as part of a collaboration with Microsoft. It uses artificial intelligence to reduce fabric wastage at the pattern-cutting stage, with the aim of achieving zero waste. As an international student entrepreneur, Ashwini acknowledges that when she wanted to turn her idea in to a business, she received guidance on protecting her IP. As her idea gained traction, Ashwini experienced the pressure points of deciding how much to disclose to those she wanted to attract support from without compromising her ability to retain control over her work. "It was all about signing non-disclosure agreements (NDAs) but also being diplomatic, as an NDA can be difficult to enforce, especially with big companies. IP turned out to be a very confusing thing to deal with. I am glad I had mentors and legal advisors supporting me."

For Ashwini, having an awareness of IP early on in her product development has helped her make IP a key part of her business strategy. As her software develops, she will think carefully about how to fulfil her ambition to scale it internationally, so it becomes a universal solution to reduce fabric wastage.



Photo: © Joao Marashin

For London-based Brazilian designer and brand owner Joao Marashin, his practice is "a call for community action, and is founded on the principles of sustaining true connections and respect for the work developed by marginalized artisans globally."

For London-based Brazilian designer and brand owner Joao Marashin (@joamarashin), his practice is “a call for community action, and is founded on the principles of sustaining true connections and respect for the work developed by marginalized artisans globally, exploring the concept of social and environmental sustainability through human-centered design and preserving hand-made techniques like crochet and embroidery, as well as working with new discoveries in raw materials.”

“I come across many artisans that are seeing their skills die out through lack of demand. This leads younger generations not to feel inspired to keep those techniques alive. I have also seen older practitioners lose their space in the industry and mature people being left out of the system in many ways,” he notes.

Joao’s vision is embodied in protecting his trademark to help develop his brand identity and reflects the interplay between IP and healthy ethical engagement. A graduate from London College of Fashion, he has taken time to consider how best to convey his commitment to transparent and inclusive practice. His online presence sets out his positive impact statement and is a testament to those creatives leading from the front and taking action to address inequality and cultural sustainability.

Embedding IP thinking into a business strategy is vital, but it is important that IP is an enabler and does not compromise enterprising ambitions. As collaboration lies at the heart of creative practice, it is essential that IP is considered within this space. Ellen Rock, a London-based fashion and textiles designer who uses her vibrant prints as a voice to collaborate with global communities on artisan-led products and projects, describes collaboration as “the core belief that an end result is stronger through combined energy. It enables an idea to travel to greater lengths than an individual attempt and encourages knowledge transfer and shared common goals,” she says. Ellen (@ellenrockstudio) has navigated the complexities of IP through managing her trademark and registered designs on an international platform and perceives IP as “integral to the progression and development of the

brand; it establishes your right as a leader of design and integrates a futuristic vision with a foundation of business. It acts as a fall back and a symbol of confidence when you are working on behalf of clients,” she notes.

Joao’s and Ellen’s passion and commitment for recognizing the importance of cultural preservation and sustainability with business practice is core to IP education. For those collaborating with local and Indigenous communities striving to preserve and celebrate traditional craft techniques and knowledge, this presents a moral and ethical dimension. While these communities “have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions,” this conceptual notion is underpinned by complex technical and legal uncertainties, primarily in terms of how traditional cultural expressions are defined, for what purposes they should be protected and for whose benefit.

IP may be seen as a form of protection and a way to retain value for such communities. However, many community practices are passed from one generation to the next; they do not belong to the individual but form part of shared beliefs and traditions. As traditionally, IP is seen to protect and reward an individual’s creative outputs, it falls short in this area.

As the global economy sets to repair itself and future entrepreneurs prepare for professional practice, it is essential that they have an awareness of how intrinsic IP is to their vision. IP education is not about having all the answers. It is about encouraging the next generation to lead from the front, recognize the value of their creative agency and use their critical thinking and perspectives to make decisions that may not always be financial successes but which have a longer-term positive impact.

As Joao recognizes, “overall, I treat my social and environmental impact as a primary measure of success for the business and prioritize it even in cases where it may not drive profitability. I believe the future of fashion relies on respect, to the planet and people, and sustainability is absolutely non-negotiable.

Building a better future with recycled plastic

By **Paul Omondi**, freelance writer

Young Kenyan entrepreneur, Nzambi Matee, is making an impact on Kenya's built environment through an innovative solution that recycles plastic into construction materials. In a recent interview with the *WIPO Magazine*, she explains how she was inspired by the late environmental conservationist and Nobel laureate Wangari Maathai to set up Gjenge Makers to manufacture pavers as an alternative, affordable and sustainable building product.

What inspired you to consider recycling as a viable enterprise, and why the construction industry?

Recycling has become a big and necessary industry in today's world. We have to consider what to do with all the products and materials we produce at the end of their lifecycle. There's only so much we can dump in landfills. Nature is also forcing us to be more efficient in our processes. Recycling is key if we are going to succeed in making the circular economy a reality. I wanted to disprove the notion that recycling is an expensive, niche market. I decided to focus on the construction industry because it is vital in providing shelter, which is one of the most important human needs.

I also have a passion for environmental conservation, which has been inspired by the late Wangari Maathai, the first African woman to win the Nobel Peace Prize in 2004. She achieved a lot through her activism. I decided to play my part in conserving the environment with science and engineering. Those are the tools of my trade.

What does the name "Gjenge" mean?

Gjenge is an adaptation of the Kiswahili word *jijenge*, which means "build yourself." It's a perfect fit for our business because we are in the construction industry, so the idea of "building" is appropriate. Our vision is to see people build a sustainable future; no one wants to live in a polluted and degraded environment. That's where our recycled pavers come in.

You call yourselves change makers. What is the change you want to see?

In Nairobi, Kenya, where we are based, you hardly see any scrap metal waste because the recycling system for scrap metal is well defined. My vision is to manage recycling of other materials, especially plastics, in a similar manner. That's the change we want to make, both in terms of environmental impact and social impact. So far, we have



Photo: © Gjenge Makers

“Our dream is to have an automated assembly line and a diverse product portfolio to meet increasing demand and increase our market share.”

The pavers produced by Gjenge are made of polymer concrete, which is basically sand and plastic. The sand is the aggregate and the plastic is the binder. The pavers are seven times stronger than concrete.

recycled more than 20 tons of plastic and created more than 100 jobs for garbage collectors, women and youth groups.

Did you ever imagine running this kind of business?

My background is in physics. I studied geophysics and natural science, but now I'm leaning more towards natural science. I'm self-taught in mechanical and hydraulic engineering, which is why I ended up running a building materials construction company. I have always wanted to provide building solutions and play a role in the conservation of the environment. Gjenge makes both of these ambitions possible.

How do you ensure you have the best talent?

We have 26 full-time employees including electronic, hydraulic, mechanical and production engineers. Training is key. We are constantly training staff on our processes and business. We are also setting up a research and development (R&D) division to stay ahead of the curve, continue to innovate and come up with new solutions and add value to the market.

Tell us about the R&D and marketing efforts that went into setting up Gjenge.

It took us about three years to research and develop the product before commercializing it. R&D is key because we are pioneers in the industry, paving the way for others with quality products and processes that offer innovative solutions for affordable and environmentally sustainable housing.

As for marketing, we have been fortunate to have partners who believe in our vision. They have done most of the marketing for us, but word-of-mouth is also very powerful and has worked well for us. We have also received backing from international organizations, including United Nations agencies, multinational corporations like Coca-Cola, regional blue chips like East African Breweries and London Distillers Kenya, and the public sector through Kenya's Ministry of Transport, Infrastructure Housing, Urban Development and Public Works. Such endorsements give us much-needed credibility to penetrate the market.

What was the focus of your R&D activities before entering the market?

First, we focused on getting the product right. That was important because it is a new solution. Then we had to make sure there were no bugs in our in-house production technology and that it met the standards and specifications required by the Kenya Bureau of Standards (KEBS). And we also had to research and clearly define our target market.

Take us through the production process.

Our pavers are made of polymer concrete, which is basically sand and plastic. The sand is the aggregate in our process, although you can use any aggregate, while the plastic is the binder; it's the equivalent of Portland cement used to bind sand, gravel and crushed stones in conventional concrete.

We mix the sand, crushed plastic and color pigment and feed the mixture into an extruder where it is heated to almost 400° C. The mixture leaves the extruder as a pasty compound, which cools before being placed into molds of varying shapes. These are compressed by a hydraulic press at between 100 to 200 metric tons to make the pavers, which are cooled before packing.

What is your current production capacity?

At present, we are producing 1,000 to 1,500 pavers per day. But we need to produce ten times more to meet current demand and are unable to scale fast enough to meet that demand. We hope to produce about 5,000 pavers per day by December 2022. That's why we are intent on replicating and multiplying our products and processes, for example, through partnerships built around different models, from revenue sharing to franchising. That will enable us to serve the market fully. So far, we have such partnerships in place in three major towns in Kenya.

What is the unique selling point of your pavers?

On its own, plastic is not very strong. But when used as an aggregate, its fibrous nature binds very well. Our pavers don't have air pockets; these are removed during pressing. This makes them up to seven times stronger than conventional concrete.

How are you protecting your innovation?

We are working on patenting our machines, products and processes. Once that's in the bag, we'll start scaling production. We hope to do this in 2022. Unfortunately, patents are very costly, so anyone choosing this route needs to ensure it makes economic sense. We're securing funding to cover the cost of patenting because we want to scale. So, depending on the business approach we adopt as we expand, patenting will become handy, especially when considering a revenue-sharing model.

What are some of the challenges you are facing?

Ours is a challenge of supply, not demand. It's a good problem, but a problem nonetheless, which we have to address seriously to uphold our credibility in the industry. That's why we are developing more efficient and faster machines to improve our production capacity. We tested our pavers last year, which was officially our first year in the market, and plan to expand our range in 2022. Our dream is to have an automated assembly line and a diverse product portfolio to meet increasing demand and expand our market share. The idea is to develop a plug-and-play formula and to replicate our production process globally.

The informal sector in Kenya has been known to copy inventions and sell them at a cheaper price. Is this a concern for Gjenge?

To the contrary; I would actually consider it a compliment if local or African artisans replicated my innovation. The challenge is how to structure it so that we get a portion of the revenues they generate to cover the cost of the R&D work that we have done.

What are you doing to ensure that others can produce your pavers?

We are currently developing training manuals for different sectors, including for the *jua kali* (informal) sector, academia, businesses and the Government. These will help ensure users know what to do when we give them access to our production technology.

We are going digital and plan to offer online training courses, so those who are interested can sign up to access our training resources on recycling and the circular economy. We'll then start them off by designing and producing the machines they need.

What about competition from bigger business rivals who can scale their operations faster and reach a wider market?

I believe the best protection you can ever have is market share. That's fundamental. If you have a big market share, everything will just fall into place. You also need a reputable, recognizable and trustworthy brand. That's what we are building – a strong brand name that's synonymous with quality, integrity and reliability. That will enable us to protect and expand our market share. Once we have these boxes checked, it won't matter if a big player moves in, because their only choice will be to collaborate with us, as we will have already cornered the market.



Crushed plastic, sand and color pigment are mixed together and fed into an extruder and heated to almost 400° C. The mixture is then placed into molds and compressed with a hydraulic press.

Photo: © Gjenge Makers

What measures can governments take to support SMEs like Gjenge?

In Africa, the value of patents has not been fully realized or exploited as a way to gain a market advantage. This is probably because of our cultures. Traditionally, ownership in Africa was communal, and as an individual, you could not claim to have intellectual property rights in creative works, processes or equipment and tools, even if you were the inventor. We created and invented things for the general good of our communities. But the world has changed, and we have to move past our traditional perception of IP, which may have contributed to delays in putting into place the necessary infrastructure to protect IP. In the absence of strong IP protection, entrepreneurs have to be smart. We have to make sure we have a big market share and strong brand name. That's what we're doing.

How are you advocating for renewable energy and how does this relate to your business?

We cannot survive in this world without energy. Our reliance on fossil fuels is proving disastrous for the climate. They are dirty and account for most of the planet's heating. In Africa, we have the option of clean and renewable energy, which is in abundance. We want to support this shift at Gjenge and have plans to move to solar for all our energy needs and to resort to the grid only as a backup. In the long term, this route makes economic sense. Renewable energy is the future. It is also our future, because we plan to become players in this field, generating, transforming and even transmitting renewable energy.

What advice do you have for young people with aspirations to build a better future?

My advice is simple. Start! That's usually the hardest part. You need to overcome the fear of the unknown, get going and deal with the challenges later. The only way to prove an idea is by starting. It's that simple.

Barnacle-inspired glue helps stem rapid blood loss

By **Karie Bate**, freelance writer

For the past decade, MIT research scientist and engineer Hyunwoo Yuk has been working to prevent 2 million people from dying every year due to rapid blood loss from serious injuries and invasive surgeries. How? He's passionate about solving difficult challenges. He is personally motivated. He likes to bake and to bake up new ideas. And he thinks outside the box.

"Engineers are folks who love to solve problems based on scientific tools and knowledge," he says. "I am always motivated when I learn about an important problem that has not been well solved and falls near the area of my expertise – even more so if it resonates personally."

When he was 22 years old, Hyunwoo Yuk's younger brother fell from five floors and suffered traumatic injuries, including severe hemorrhage from aortic damage. He later found out that the multiple operations his brother underwent took twice as long as planned due to challenges in controlling bleeding. "Having a strong personal motivation [to solve] the problem helped me get inspired and search for better solutions," he says.

His passion for home baking also sparks his creations. "I particularly enjoy making muffins. They're easy to make and it's fun to add different ingredients to them. They probably reflect my taste as a material scientist/engineer, as I like to make materials with relatively simple components but better performance."

OUT OF THE BOX APPROACH TO TACKLING RAPID BLOOD LOSS

Over the last seven years of his postgraduate studies, Hyunwoo Yuk has been baking a portfolio of bio-adhesive technologies to rapidly stop and control bleeding in people suffering from traumatic injuries or undergoing intensive surgeries.

The latest of his inventions, developed over the past four years, is a white toothpaste-like glue or paste that can adhere to surfaces covered with blood. And it's out of the box. He got inspiration from none other than the humble barnacle – a tiny crustacean that clings to rocks – to drive his innovation.

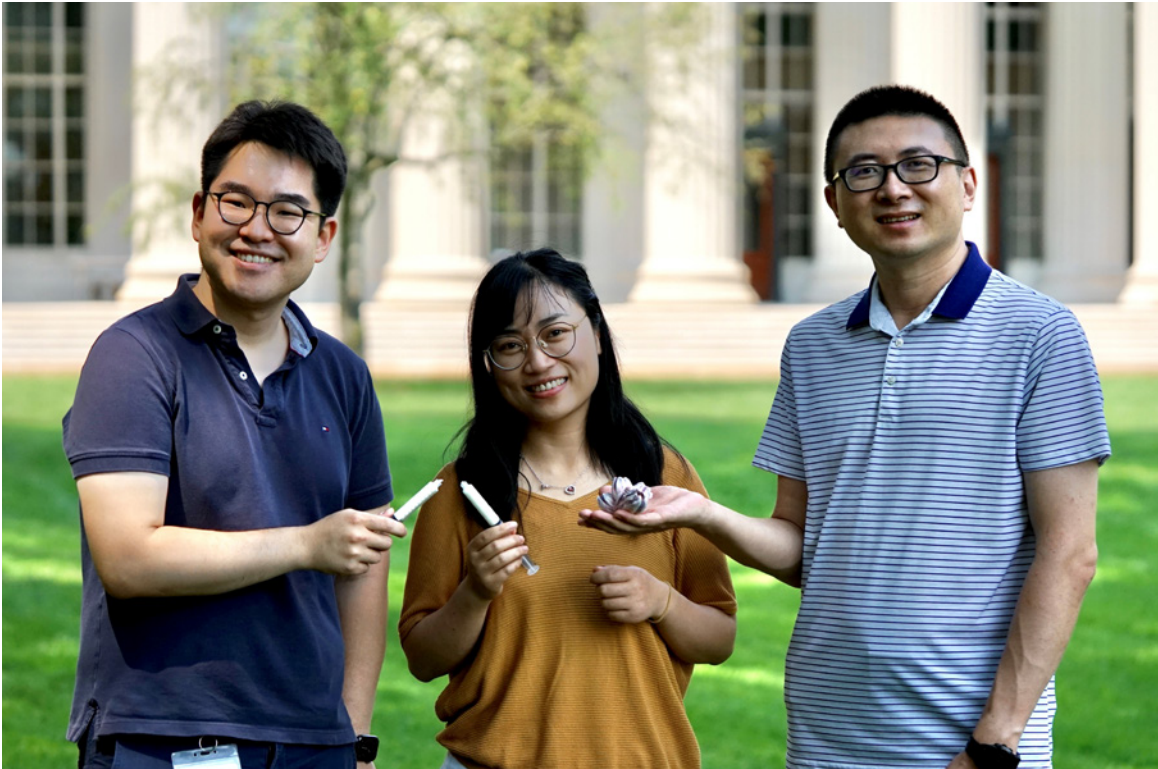


Photo: Courtesy of Hyunwoo Yuk

Hyunwoo Yuk and his fellow researchers mixed sticky micro-particles and silicone oil, to repel blood from tissue. The solution creates a strong seal around tissues and offers a breakthrough in performance beyond traditional approaches to controlling bleeding.

It turns out barnacles and animal and human body tissues are exposed to similar wet and unclean environments. Barnacles are exposed to water and dirt while animal and human body tissues are also wet and “dirty” due to their interaction with blood, which, by its nature is a contaminated fluid. The way barnacles manage to adhere to surfaces piqued the interest of Hyunwoo Yuk and his team of researchers.

They discovered that barnacles manage to adhere or cling to wet and dirty surfaces through sticky protein molecules suspended in an oil that repels water and contaminants. This function inspired Hyunwoo Yuk and his team to come up with a sticky solution that acts in a similar way and helps seal bleeding animal tissue.

Rather than using the actual protein that barnacles use for their test glue, they mixed sticky micro-particles and silicone oil, which repels blood from tissue. “For an adhesive to work you have to keep contaminated blood cells out of the way of tissue,” explains Hyunwoo Yuk.

“From an engineering perspective, this kind of counterintuitive, out-of-the-box solution is important, as it can provide a breakthrough in performance beyond traditional approaches for stopping bleeding,” he emphasizes.

WHAT SETS THIS INVENTION APART FROM OTHERS ON THE MARKET?

In a study published in *Nature Biomedical Engineering* (August 2021), Hyunwoo Yuk and his team demonstrated how their glue can stop bleeding in seconds. The experiment was conducted on rats with bleeding heart and liver injuries. Bleeding continued in the rats that Hyunwoo Yuk treated with standard products used by surgeons. For those treated with their oily glue, bleeding lasted ten seconds or so. Rats and pigs tested with the glue survived.

Besides saving time, Hyunwoo Yuk claims the innovation is also more robust than other similar products because it creates a stronger seal around tissues. In addition, he says the paste has the potential to work quickly on patients who are unable to form their own blood clots because of a medical condition. Existing solutions to stop dangerous bleeding rely on the body's natural ability to form blood clots. In conceptualizing their technology, the researchers wanted to stop bleeding without relying on blood clot formation at all. "In our view, relying on natural blood clot formation makes things slow and complicated and excludes patients with certain health conditions," says Hyunwoo Yuk.

NEXT STEPS TOWARDS COMMERCIALIZATION

While the startup is some time from being able to sign commercial deals, Hyunwoo Yuk says Asia and the United States will be potential big markets. In the meantime, the team is motivated to continue testing their barnacle-inspired glue.

With continued funding from corporate and private investors, the researchers plan to perform further pre-clinical studies on larger animals (pigs) to better optimize the technology for specific clinical indications as well as to gather necessary data toward investigative device exemption (IDE) from the United States Food and Drug Administration towards their first in-human clinical trial. They hope to be able to test their glue on humans in 18 months. Their focus will be on testing the capacity of their glue to stop blood flow during surgery on solid organs, (e.g. liver, spleen and kidney), cardiovascular surgery, as well as endoscopic surgery (gastrointestinal bleeding, and more). They also plan to explore demands in the military for application in treating gun wounds and impact injuries.

PROMISING POTENTIAL FOR PATIENTS AND CAREGIVERS

The evidence from the study of the glue's impact on bleeding animal tissue, although still in its early stages of development, offers hope for humans with blood, heart and liver disorders requiring surgery.

The glue has the potential to help cut down the time surgeons spend on controlling bleeding during surgeries. It could also prove useful in places without access to surgical resources like combat zones or resource-constrained regions.

While there is still some way to go before Mr. Yuk's invention comes out of the oven, the ingredients look promising. Certainly, millions of people will be hungry for it.



Photo: Courtesy of Hyunwoo Yuk

For the past seven years, Hyunwoo Yuk has been baking a portfolio of bio-adhesive technologies to rapidly stop and control bleeding in people suffering from traumatic injuries or undergoing intensive surgeries. His latest invention is a white toothpaste-like glue or paste that can adhere to surfaces covered with blood.

“Intellectual property (IP) is an essential part of a technology startup of any kind, as it is a core element to engage productively with larger companies and to attract much-needed investments.”

Hyunwoo Yuk

Hyunwoo Yuk on the importance of intellectual property

How is intellectual property important to your business?

Intellectual property (IP) is an essential part of a technology startup of any kind, as it is a core element to engage productively with larger companies and to attract much-needed investments. One of the first things companies and investors want to know is whether our technology is protected by a patent. Based on our experience so far, it is hard to imagine how we could do routine activities for next steps in commercialization without having our technologies and IP protected by patents.

How are you protecting your IP?

We protect our IP in the traditional way, by filing patents domestically and internationally. As it is common nowadays to translate lab-grown technologies into industries, educational effort and awareness of protecting IP beyond publishing academic papers has increased. Since protecting novelty and ownership of ideas against competitive peer researchers is so important in our academic career, it was kind of natural and easy for me to understand the importance of protecting IP in the form of a patent in our commercial setup.

What has been your experience with the patent filing process?

In the United States, initial provisional filing is fast and simple. It is easy to file a patent through technology licensing offices where a PCT application is commonly submitted with a national application to allow us to get protected internationally with priority. Formally filing a patent application requires substantially more time and often requires us to closely interact with a patent attorney and the school's technology licensing office to make sure the IP is commercially valuable enough to justify the legal cost.

Do you have an IP strategy?

We will incorporate MIT's larger IP strategy of grouping and integrating technologies that share core technologies to protect against infringement. While we are a bit too early stage for a detailed IP strategy, our startup will be defining this as a priority. I am learning that IP strategy, starting from license agreement terms (if spun-off from university technologies), can have a definitive impact on the overall commercialization process. We are carefully approaching this process with the help of experienced mentors and legal advisors.

What lessons have you learned so far around IP that you can share?

I have learned is that the patent is much more important than the research paper when it comes to commercialization of IP. While I have put a lot of effort into preparing strong patent applications for my recent inventions, I found that my earlier patents were somehow weaker as I was more focused on publishing academic papers than preparing strong patents. I have learned that a patent application is not and should not be a copy and paste of a research manuscript. It should also include commercial considerations on top of the technological aspects of the invention, including broad scope of claims, to prevent minor modification-based infringement, etc.

Isabella Springmuhl brings inclusive Guatemalan designs to the fashion world

By **Manuela Ramos Cacciatore**,
Information and Digital Outreach
Division, WIPO

Isabella Springmuhl has carved a niche for herself in the fashion industry, thanks to the creativity and soul she puts into the designs she creates for her brand, *Down to Xjabelle*. The 25-year old is the first designer with Down syndrome to feature in London Fashion Week, one of the world's biggest fashion events. She is using the power of fashion to challenge the stereotypes and social discrimination she has experienced in response to her condition. In a recent interview with the *WIPO Magazine*, the young designer talks about her brand, *Down to Xjabelle*, the message of solidarity that it represents and the importance of intellectual property (IP) to her business.

Tell us about yourself.

I am just as you see me. I am a designer, singer, daughter and sister, I am very talkative, sociable and fun loving and I am also a young woman with Down syndrome who loves what she does. I often say that the X chromosome is the love chromosome. My disability has made me stronger because I have had to work harder to get where I am. I am working on many projects and have many ambitions both for my brand and personally. My personal dream is to be an example to society and to show how wonderful Guatemala is. It's one of the world's most textile-rich countries.



Photo: Courtesy of Isabella Springmuhl

Isabella Springmuhl (above) is driven by a desire to promote diversity and inclusion with her brand, *Down to Xjabelle*, and to break stereotypes in the fashion world.



Photo: Courtesy of Isabella Springmuhl





IP rights are a signal to my customers. They know that when they buy a *Down to Xjabelle* design they are acquiring a unique item.



Creativity is at the heart of Isabella's brand, *Down to Xjabelle*. Her colorful *huipiles* are inspired by the fabrics that make up Guatemala's textile-rich cultural heritage.

Where does your passion for fashion come from?

From a very young age, I wanted to be a fashion designer. My mum tells me that when I was little I spent hours looking at fashion magazines, tracing dresses on paper and making them for my rag dolls. I would play with colors, shapes and textures. This was a foundation for my designs. My maternal grandmother was also a designer, so design runs in my veins. What started as a childhood game has become an entrepreneurial endeavor.

What obstacles you have you had to overcome in your career?

The biggest setback was being denied entry to university. I was very angry, but I didn't give up. I was denied a formal education because of my condition. That was the first time I felt I might not be able to achieve my dreams. But now, I think it's the best thing that could have happened to me. In the end, I studied at a dressmaking academy where I learned how to use my machine, sew, make patterns, make friends and more. There, I realized that there are different ways to achieve what you set out to do.

How have you managed fears that your condition might hinder your dreams?

My fear of discrimination and rejection because of my condition has never paralyzed me, thanks to the support of my family, my team at *Down to Xjabelle* and my self-confidence. After all, I have achieved what I always dreamed of. I am happy with my designs and I know that the fashion world is my thing. But sometimes people are scared of me. At school, my classmates were afraid because they thought my condition was a disease. So, my mum and I made a book explaining that I am the same as they are and just needed more time to learn. When I graduated, they chose me to give the farewell speech — imagine that! That's when I finally felt accepted at my school.

What advice would you have for people living with a disability?

I would tell them to change “no” to “yes I can”. We all have a learning curve and people with Down syndrome need more time to learn the skills they need to achieve their goals. While we are not perfect and make mistakes, we are human and need to keep moving forward. Our skills may develop more slowly, but with the right support and preparation to become adults we can achieve our goals. For example, I have my own design process; I sketch out my designs and use photos to convey my ideas to the people in my workshop who make what I have designed.

What lessons have you learned in your career as a fashion designer?

The most important lesson is to always look for the positive and to realize that it's okay to cry, get frustrated and angry because of inner doubts. I encourage everyone to follow their dreams and to let their minds fly!

I'm pleased to see that the fashion world is becoming less superficial. When people see my designs, they don't see someone with Down syndrome, they see a designer. That empathy makes me feel like one of them, and makes me happy to be able to open my heart through my designs.

Tell us about Guatextraordinaria. How did you start that project?

Guatextraordinaria came about when my aunt Maru invited me to participate in a fashion show at the Ixchel Museum in Guatemala City, where I presented my bags designed with Guatemalan textiles, tassels, pompoms and colorful accessories. This was my first experience of a fashion

show and it opened the doors to the 2016 London Fashion Week, where I presented my work as an emerging fashion artist. That same year, I was named by the BBC as one of the world's 100 most influential women.

After Guatextraordinaria, you established Down to Xjabelle. Why was it important for you to create your own brand?

The *Down to Xjabelle* brand is my way of transmitting my ideas and creativity in every design I make for the fashion world. *Down* comes from my condition, and *Xjabelle* was the name of the workshop where my maternal grandmother worked 29 years ago. At first, the brand was focused on boys and girls with Down Syndrome, and that's where the name comes from. People with Down Syndrome have short limbs and torso, our bodies are different, so I started the brand making clothes for us. Now, we design clothing for women, young women and girls, and some clothing for boys and men, because everyone likes it.

What are the values behind Down to Xjabelle?

The values behind my brand are love for my country, Guatemala; for its history and the cultural heritage of Guatemalan textiles. The traditional Guatemalan style is present in each of the *huipiles* (embroidered dresses) that I make. My brand even has a word from the Indigenous language. The syllable "Xja", from *Down to Xjabelle*, comes from the Mayan language, Mam, spoken in northwestern Guatemala. It means "clothing". Diversity in the fashion world is also expressed through my brand.

I am a very inclusive person and I want to show that through the brand. In my fashion shows, I show models living with physical or mental disabilities because I believe that the fashion world must be inclusive. I fill the catwalks with love for inclusion and national pride, and I feel very grateful for that.

Why was it important to protect your brand with IP rights?

I decided to register *Down to Xjabelle* because through my brand I make and sell my designs, using colorful Guatemalan fabrics. This way, I support the magical work of the artisans and the team of tailors, seamstresses and embroiderers in my company, and ensure the authenticity of each item. Thanks to *Down to Xjabelle*, my designs are becoming recognized around the world.

It is also important to protect the fact that I make sustainable, eco-fashion, which is one of the brand's key characteristics. None of the materials I use in my *huipiles* are new, they are used fabrics — my brand is responsible. In my workshop, I have cardboard boxes full of worn scraps and materials that I mix up to create my designs. Nothing is new; everything is recycled.

How have intellectual property (IP) rights, such as your trademark, supported the growth of your company?

They have helped me gain recognition and standing for all the effort I put in, for my creativity, the quality of Guatemalan textiles, my team's work and the fair trade behind each item. IP rights also support the values of solidarity and service that *Down to Xjabelle* asserts to recognize the artisans' beautiful work and to champion the richness

of Guatemalan textiles, which few people know about. All this allows me to place the right economic value on the work of the artisans who provide me with the brand's fabrics and *huipiles*, which, in turn, enables them to support their families and improve their quality of life.

How does your brand support Indigenous peoples and communities?

I work with a group of artisans in Sacatepéquez, Guatemala, who make the tassels, fringes, beads, mesh bags and macramé that I incorporate into my items. I also work with a group of artisans with mental and physical disabilities who make all the beaded embroidery used in my designs. They are wonderful people. I am very fond of them and I recognize their artisanal work with fair and equitable payment. For me, the most important thing is to highlight the incredible work and technique required to make the textiles we use in the designs, and to recognize the origins of the materials used.

Is it important for fashion designers to recognize the inspiration for their designs?

All my fabrics have been previously used. Even so, it is important for me to know where they come from and that I am using items that are unique and have a history and tradition behind them. No two are alike. It is important that we designers recognize the source of our inspiration, and the value and work behind each item. That's why I insist that my suppliers inform me of the origins of the fabrics I use.

What projects are you currently working on?

During the pandemic, I have been working on my latest collection, called *Keep on*, which I presented in the Fashion Days, in San Miguel Allende, Mexico in October 2021. The city dresses up for this beautiful event and hosts a runway show at a local vineyard. The *Keep on* collection is inspired by the pandemic: keep going, no matter what.

And your plans for the future?

I am going to collaborate with a handbag brand to design *mashatates* (Guatemalan handbags) inspired by the bundles of goods that Indigenous Guatemalan women carry on their heads, thus linking in with my first collection. I also want to create a line of hats that reflect who I am, with feathers and tassels — my own special quirks that make my designs look as though they want to fly. And I want to create a “pet lovers” line for dogs. I will also continue to give talks, to strive for the inclusion of people with disabilities, and to encourage them to pursue their dreams.



Photo: ©Isabella Springmuhl

Isabella Springmuhl is committed to recognizing the origin of the materials she uses and to rewarding the artisanal work of Indigenous people with fair and equitable payment.

Trademarks in the metaverse

By **Kathryn Park**, Principal, Strategic Trademark Initiatives, Connecticut, USA



Photo: Diamond Dogs / iStock / Getty Images Plus

While the metaverse is still developing, it has gained a foothold in a number of sectors and is expected to expand and become an ever richer environment for users.

What is the metaverse? In the simplest of terms, it is a virtual space in which users are and will be able to interact and connect with each other in myriad ways – gaming, collaborating, shopping, and exploring – without leaving the comfort of their couch. Some of this functionality already exists in gaming platforms.

What is envisioned is nothing short of a sophisticated make-believe world in which consumers can experience life virtually. For example, shoppers can buy virtual products, online simulacrum of a real item with which to adorn their avatar or can attend concerts and sporting events as virtual VIPs, buy expensive and unique works of art, drive virtual autos or yachts, travel and dine in special and exotic locations and more. The metaverse is expanding day by day.

Many of these new virtual experiences or goods will have the added allure of being an NFT, a unique digital creation. And lots of not so imaginary value will be created,

as consumers of this new virtual and augmented reality spend real money, albeit in the form of digital currencies, to participate.

While the metaverse is still developing, it has gained a foothold in a number of sectors. The gaming universe, for example has been a leader in developing new space, with gamers able to make in-game purchases using the virtual in-game currency of digital objects, like “skins”.

Sports leagues are joining in, with opportunities for purchasing NFT trading cards, or attending the next generation of fantasy league events. Participants can attend a virtual musical event like a concert by American rapper Travis Scott. This is just the beginning. The metaverse is expected to expand, becoming a richer environment for the user community.

Meta, the Mark Zuckerberg-led company that owns Facebook, is deep in development as it attempts to capture the bounty of the Metaverse for itself. But other tech companies, from Microsoft to gaming companies like Nvidia and Roblox, are equally eager to capture as much real estate in the metaverse as they can.

As is the case in the physical world, there are a host of legal issues that will arise in the metaverse. Privacy and data collection, antitrust or anti-competition, free speech and defamation, as well as intellectual property issues, from copyright to patents to trademarks. For brand owners, protecting their brands in the metaverse will be critical, and getting ready to play in the new meta sandbox will require a legal strategy.

PROTECTING YOUR BRAND FOR THE METAVERSE – REGISTRATION AND BEYOND

If your company is contemplating selling branded virtual goods and services in the metaverse, trademark applications should be filed as soon as possible. But how do you apply to protect your brand for a digital sneaker? A virtual tote? What description of goods and services is appropriate, and what classifications are apt?

Some companies have already implemented broad filing programs. Several are footwear giants such as Nike and Converse, both of which recently filed a number of applications in the United States Patent and Trademark Office. And, not surprisingly, companies in the fashion, cosmetics, sports and entertainment industries are also filing applications for their marks for use in connection with virtual offerings. While these applications have yet to undergo scrutiny, they offer a road map of potential

ways to achieve trademark registrations for virtual goods. It appears that companies are filing for protection in relation to the following classes of goods (see p. 32) - downloadable virtual goods, namely computer programs (class 9), retail store services featuring virtual goods (class 35), entertainment services (class 35), on-line non downloadable virtual goods and NFTs (class 42), and financial services, including digital tokens (class 46). As these applications are examined by various trademark offices, the descriptions of goods and services, as well as classification issues, will likely become more standardized, and those guidelines will serve later applicants.

In most jurisdictions, the first to file owns the rights in the trademark. And even in the United States, where actual use in commerce will trump a prior filing date, early filing on an intent to use basis is critical, as the date of filing will establish the first use date, even if actual use occurs later.

Not surprisingly, bad actors are trying to usurp valuable trademark rights in the metaverse with preemptive filings. Bad faith applications for metaverse trademarks abound. In the United States, for example, bad faith applications for metaverse marks have been spotted recently for fashion brands like Prada and Gucci. These bad filings are a major challenge for trademark owners because combatting such bad faith applicants has a price; potentially huge legal fees and a drain on corporate resources.

Some companies aren't keen to use their brands in the metaverse. Hermès, for example, aligns its brand with beautifully hand-crafted leather, silk and other merchandise its customers prize. Offering Hermès virtual products is seen by the company as anathema to the nature of Hermès goods. But that did not stop the sale of virtual Hermès merchandise by a meta buccaneer.

In late 2021, Hermes protested the sale of MetaBirkins, virtual NFTs sold on OpenSea, created by the artist Mason Rothschild, that appear virtually identical to the much coveted and instantly recognizable Birkin bag created by Hermes. Hermès Birkin bags sell for thousands of dollars. The MetaBirkin NFTs also sold for large amounts, reportedly bringing in almost USD 1 million on OpenSeas. Hermes has protested and filed suit.

If your company isn't going to use its brands in the metaverse, can it establish its marks are famous and thereby protect them from meta uses? Hermès might well be able to argue that unauthorized meta-use tarnishes the unique brand that is Hermès. But other less well-known brands might have a much tougher legal road. They might have to rely upon a likelihood of confusion



Photo: blackdovfx / iStock / Getty Images Plus

NFTs present special consideration in terms of ownership. The enormous price tags they carry will undoubtedly spawn hotly contested legal challenges if something goes awry.

About the Nice Classification

When individuals or businesses register a trademark, they do so in relation to specific goods and services as outlined in an international classification, known as the Nice Classification, which is updated regularly. The Nice Classification is made up of 45 categories of which 34 relate to goods and 11 relate to services. The Nice Classification was established following the conclusion of the Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks in June 1957.

analysis that is the basis of a trademark infringement claim. In that circumstance, the owner of the trademark could face an adverse decision; a court might narrowly focus on whether the respective goods and services, virtual and real, are similar, or on the very different channels of trade, as might a trademark office when considering an opposition to an application for virtual goods. Trademark owners and their lawyers may need to evaluate whether they should also allege claims for false advertising, as well as claims at common law, such as misappropriation and passing off.

Policing brands may be harder than ever in the metaverse. The NFT market is already awash with frauds and users are venting their frustrations. Calls for OpenSeas, the largest NFT marketplace, and other NFT markets to better police their operations are ongoing. In this wild-west environment, trademark risks abound. First, sales that rely on the goodwill of a brand may accrue to someone other than the brand owner, as the MetaBirkin example shows. Second, customers who purchase a fraudulent NFT may end up disgruntled that an expensive item is not an authorized branded one, as the value they have invested in the NFT disappears.

As it is conceived, the metaverse will be an ever increasingly expansive space with many participants. No doubt, watching services will develop with special modalities for searching the

metaverse for fraudulent trademark uses. Customer engagement is one way through which brands can learn of misuse. And, at least for now, enforcement activity will be the old-fashioned route, with cease-and-desist letters and follow-up litigation.

DOES EXHAUSTION OF RIGHTS APPLY TO A SALE OF A BRANDED VIRTUAL GOOD?

When an individual purchases a tangible item, be it apparel, a home appliance or a car, that individual then has the right to do with the item whatever she pleases. She may change the item's appearance or functionality, give it away or sell it on a secondary market, even destroy it. The doctrine of exhaustion of rights gives the trademark owner no ongoing ability to control its goods in the marketplace once sold. But what happens when the item is a virtual as opposed to a tangible piece of property? At this point, there are more questions than answers. For example, what rights does the purchaser have in the virtual item purchased, and perhaps more importantly, what rights does the purchaser think she has? Are the trademark owner's rights exhausted at sale, or does she continue to have rights in the transferred piece of intellectual property? Does the trademark owner have ongoing obligations to the purchaser or to a subsequent transferee?

Video games, such as Fortnite, are progenitors of the metaverse, and have long been engaged in selling virtual accoutrements, skins or "cosmetics" that players can use with their online avatars. So, this model may be instructive in the metaverse. Those skins do not expire. Players "own" them, provided, of course, they continue to participate with new iterations of Fortnite. Ownership of such property conditioned on participation through continuous license fees seems more like a license than a true transfer of an item as in the real world. What will happen if the "walled gardens" of the current Internet disappear? Will these skins be something the purchaser owns and can use across the metaverse, as opposed to a specific platform? What will the wearer of a virtual pair of Nike shoes, or the carrier of a virtual Gucci bag, expect?

NFTs present special consideration in terms of ownership. As a unique virtual item, they can sell for literally millions of dollars. An NFT by the artist Beeple was auctioned by Christie's for USD 69 million to a meta collector. The enormous price tags such virtual property carry will undoubtedly spawn hotly contested legal challenges if something goes awry.

Brand owners should be considering how to construct their virtual marketplace with appropriate trademark registrations, a robust policing strategy and appropriate licenses and terms of use as they look to grow in the metaverse (mindful to avoid legalese to ensure users are not put off from participating). These trademark issues, handled without care, could diminish goodwill should consumers become disenchanted with the way the branded virtual merchandise is marketed in the metaverse. As is the case on social media now, a *faux pas* in the metaverse is likely to have immediate negative consequences for the brand.

“For brand owners, protecting their brands in the metaverse will be critical, and getting ready to play in the new meta sandbox will require a legal strategy.”

How the boy band BTS is using IP to build its legacy

By **Ana Clara Ribeiro**, Intellectual Property attorney, Curitiba, Brazil



The boy band BTS is one of the most successful groups of all time. The band's ability to leverage its IP rights to strengthen its brand, develop its creative potential and diversify income streams is striking.

The Korean boy band BTS is one of the most successful groups of all time. Since releasing its first album, *2 Cool 4 Skool*, in 2013, the group's seven members – RM, Jin, SUGA, j-hope, Jimin, V, and Jungkook – have built up a huge global following. With roots in the Korean underground hip hop scene, BTS successfully transcends language and culture barriers with songs like *Blood, Sweat and Tears*, *Fake Love*, and *IDOL*.

Today, they perform and win music awards around the world with songs in Korean and English (with selected recordings in Japanese). BTS has addressed the United Nations General Assembly on two occasions, with whom they launched *Love Myself*, a powerful anti-bullying campaign. BTS has become an economic force in the Republic of Korea, boosting tourism and interest in Korean fashion, food, movies and TV programs. A study by the Korean Culture and Tourism Institute estimates that BTS is contributing around USD 5 billion to the domestic economy.

There are many layers to BTS's artistry and success. Their ability to connect emotionally with their fans is second-to-none. The passion and dedication of the group's fans, known as the ARMY, goes well beyond financial support; they are active and passionate promoters of BTS. The band's ability to leverage its rights to strengthen its brand, develop its creative potential and diversify income streams is also striking.

BTS is expanding its fan base by creating a fun-filled universe of music and content that offers fans multiple ways to engage. Music is their bread and butter, but the band is expanding its IP asset portfolio and branching into other areas of entertainment. HYBE, the Republic of Korea's leading entertainment management agency, manages the group and its IP. Music, entertainment and education make up the legacy BTS is building. Effective IP management underpins these activities.

COPYRIGHT

Copyright is a key IP right for musicians. It protects the most important elements of a musician's career: their musical compositions, performance and sound recordings. Copyright-protected musical compositions can generate significant revenues from performance royalties, mechanical royalties (generated each time a composition is reproduced), synchronization (e.g., when a song is played in a movie, TV show or advertisement), and other publishing rights.

At least three of the band's members – SUGA, RM, and j-hope – have become full members of the prestigious Korean Music Copyright Association (KOMCA) thanks to the popularity of their work.

Each member of BTS has songwriting credits. Their music is filled with personal references and creative wordplay and resonates with fans. This enables them to create a strong emotional connection with their fans, and interconnections among their fan base, as the fans engage in discussions about the meaning of their lyrics and how to interpret and translate them.

In 2020 and 2021, BTS topped the recording industry's Global Recording Artist chart, which ranks the world's best-selling acts according to physical and digital sales. BTS is the first Korean act to top this chart, the first-ever band to hold this position with music primarily sung in a language other than English. Its albums have been among the world's top sellers since 2018, and in 2021, BTS was the third most-streamed act on Spotify.

Beyond its musical success, BTS's copyright portfolio extends to books, comics, music videos, variety shows, documentaries, mobile games, DVDs, and streaming. BTS has even created its own fictional universe, "the Bangtan Universe" (or BU).

BU underpins the band's transmedia strategy, which develops and delivers content across multiple platforms to create a cohesive fan experience. BTS tells its story through short social media "notes" and physical cards inserted in the band's physical albums. BU



Image source: Application No. 7020190001145, KIPIRS

The band's logo has evolved over time and embodies the group's identity and purpose. It represents "a door for youth to move forward to a new world," and is central to its brand.

BTS makes legal history on image rights

Image rights (the right to control the commercial use of one's identity) are clearly extremely important for high-profile musicians and artists. BTS made legal history in the Republic of Korea in 2020, when the Korean Supreme court set a precedent by ruling that publicity (image) rights belong to celebrities and their management agencies. The ruling is expected to help prevent unauthorized third parties from free riding on the success of groups like BTS. The decision now offers entertainment agencies a legal basis to sue unauthorized producers of merchandise bearing the bands names and images.





Photo: Erik Pendzich / Alamy Stock Photo

The band's fan base, known as the ARMY, is one of the most active and influential communities online and has become a brand with a registered trademark in its own right.

also contributes to BTS music videos and has generated two books (*The Notes 1* and *The Notes 2*), and the digital comic series *Save Me* (2019).

In 2014, BTS released its digital comic, *Hip Hop Monster* followed by the *BTS World* mobile video game in 2019, along with a series of graphic books inspired from their songs. This was followed in January 2022 by the release of a new digital comic novel, *7Fates: CHAKHO*, an urban fantasy series inspired by Korean folklore, available on the Webtoon and Wattpad platforms.

The band's richly diverse content strategy has also created additional music-making opportunities, including the soundtrack for *BTS World*, and a single, *Stay Alive*, by Jungkook and SUGA, for the *CHAKHO* series.

BTS also hosts various annual events, including *BTS FESTA* — a celebration of the band's debut, where they release special songs and organize photoshoots — "Muster" events, special concerts for fans, which are released on DVD, and the game show *Run BTS*.



Photo: Walter Cicchetti / Alamy Stock Photo

The sale of merchandise is typically an important revenue source for musicians. BTS has created numerous fictional characters and product lines for fans to buy. In this way, the band is leveraging its IP rights to create multiple opportunities to expand its universe and create new revenue streams, including through licensing.

The band's sophisticated multimedia structure creates multiple opportunities to connect with their fans and to generate new creative outputs.

TRADEMARKS

The creative universe that BTS is building includes many brands underpinned by registered trademarks. A trademark is a sign that distinguishes the goods and services of one company from those of a competitor. The registration of a trademark is a solid foundation for developing a brand.

The band's name, BTS, an acronym of "방탄소년단" (Korean for "bulletproof boy scouts"), is at the heart of its trademark portfolio. As the band's name and logo are used to identify many goods beyond their music, both are registered as trademarks in relation to multiple classes of goods, including cosmetics, furniture, telecommunications, education and entertainment software, and others (see p. 32) in the Republic of Korea.

ARMY, the band's fan base, is one of the most active and influential communities online. In fact, it has become a brand with a registered trademark in its own right.

BTS has also applied for trademark rights to protect different expressions of its relationship with fans, such as the expression "보라해" (a neologism for the color purple), coined by BTS member V.

BTS' multi-pronged brand strategy also extends to registering trademarks for BTS-run events and projects like BANGBANGCON, ARMYEDIA, BU, 7FATES, and BTS UNIVERSE STORY.

According to data from the South Korean National Assembly, BTS registered more trademarks with the Korean Intellectual Property Office (KIPO) in 2021 than any other pop group.

PATENTS

In its drive to enhance the entertainment experience of BTS fans, HYBE is partnering with various high-tech startups and investing significant sums in developing patented new technologies. Broadly speaking, patents protect technology that is inventive, novel, and useful. The thresholds for patentability vary from one country to another. Within the entertainment industry, patents protect an array of cutting-edge technologies that support the production of creative outputs.

In 2021, HYBE invested in the Supertone an AI-startup whose Singing Voice Synthesis (SVS) technology creates clones of voices of BTS band members. It also partnered with Neosapience, another AI-startup to develop educational content for its *Learn! Korean* study package, which uses BTS and their TinyTAN characters to teach fans basic Korean. It comes with an electric pen (the motipen) fitted with Neosapience's patented cross-lingual voice cloning technology. When the pen hovers over a text it produces

“BTS
registered
more
trademarks
with the
Korean
Intellectual
Property
Office in 2021
than any other
pop group.”

an audio version in Korean, English, Japanese and Spanish in voices resembling those of BTS band members.

HYBE also invests in the development of new technologies that support BTS' merchandizing activities, for example, in relation to the "light sticks" used by fans to express their support during live performances. In 2020, HYBE, applied for a number of patents for methods used to transmit data and control the colors of a light stick. At the time of writing, these patent applications have yet to be examined by KIPO.

DESIGNS

Insofar as design rights protect important elements of the BTS brand experience, they are an important addition to their expanding IP portfolio. The sale of merchandise is typically an important revenue source for musicians. The time and money invested in designing merchandise can also generate new IP assets protected by design rights, which protect the aesthetics of a product.

The ARMY Bomb, for example, a foremost symbol of fans' allegiance to BTS, has been released in different versions. HYBE currently owns rights in three ARMY Bomb designs, according to the Korean IP rights information system (KIPRIS). Every K-pop group typically has its own official light stick, with its own design and name. BTS's ARMY Bomb is battery-charged, and when paired with the BTS official app through Bluetooth, it changes color to the rhythm of the band's songs during concerts

LICENSING AND OTHER IP STRATEGIES

In leveraging its IP rights effectively, BTS is creating multiple opportunities to expand its universe and create new revenue streams, including through licensing. To this end, BTS has created numerous fictional characters and product lines. For example, BT21, a futuristic co-creation project in partnership with the LINE FRIENDS CREATOR platform, includes mascots resembling BTS band members, which appear in video animations, and a wide range of fashion, stationery, cosmetics and food products. Through BT21, BTS is partnering with many global brands, including Converse, Reebok, Hello Kitty, Antisocialsocialclub, Neighborhood, UNIQLO, Melissa, The Crème Shop, Olive Young, Jandaia, Riachuelo, MediHeal, Dunkin' Donuts and more.

Similarly, the TinyTAN animated characters, which reflect the image and stage names of band members, have their own YouTube channel and brand partnerships. They are the "face" of BTS in projects like "*Learn Korean with TinyTAN*", and various animated films.

SUMMING UP

By protecting their artistic works and cultivating a unique connection with their fans, BTS is demonstrating how strategic use of IP can enhance brand experiences, generate income and create new opportunities for creativity. Business innovation and IP are clearly important drivers of the band's success and play a key role in building and preserving its legacy.

Photography, Indigenous cultures and climate action

By **Rebecca Ferderer**, Traditional
Knowledge Division, WIPO



Photo: Prince Loyd Besorio ©

Every day across the globe, millions of photographs capture the best — and the worst — of humanity and its impact on the natural world. Many photographers are capturing the stark reality of the climate crisis in a drive to inspire climate action.

It is often said that a picture is worth a thousand words. Photography is a powerful means of communication offering a new lens through which to learn about and view the world. Every day across the globe, millions of photographs capture the best — and the worst — of humanity and its impact on the natural world. For example, today, many photographers are capturing the stark reality of the climate action in a drive to inspire climate action. But first and foremost, photography is a creative act and intellectual property (IP), particularly copyright, plays an important role in determining who owns a photograph and how it may be used and by whom.

The moment you click the shutter on your camera, you own the rights to that newly created image and can decide how others may use it. Many photographers, however,



Photo: Ramona Elizabeth Servin Barboza ©

Photographers from Indigenous and local communities can leverage the power of photography to raise awareness about the struggles their communities face and the central role they can play in battling climate change.

are unfamiliar with this central tenet of copyright law. In today's increasingly digital world, an understanding of these rights is more important than ever, given the potential for these images to reach global audiences.

"Photographers are often not aware that their works are protected by copyright from the moment they were created," says Leonardo de Terlizzi, Senior Legal Advisor of the International Confederation of Societies of Authors and Composers (CISAC). "Recognizing these rights is truly necessary in the current digital ecosystem in which photographs have the amazing potential to reach a massive audience globally."

THE NEED FOR GREATER IP AWARENESS AMONG INDIGENOUS PEOPLES AND LOCAL COMMUNITIES

While this is true for photographers everywhere, the need for a sound understanding of how copyright can safeguard the interests of photographers from Indigenous communities is even more acute. Over generations, these communities have developed a wealth of traditional knowledge and related intangible cultural heritage. It is central to their identity and their lives, and is increasingly recognized as the key to effective climate action.

When these cultural assets go unprotected and are used by others — without the consent of the community concerned — these communities and their heritage are at risk of being misrepresented or distorted, with potentially far-reaching implications. In cases where traditional knowledge is sacred or secret, it is even more important for a community to be able to protect and maintain their rights against such misuse or unwanted disclosure. From a financial perspective, the lack of protection can hit the economic prospects of these communities, possibly even preventing them from benefiting from their own cultural heritage. With a robust understanding of how they can benefit from copyright, photographers from Indigenous and local communities can leverage the power of photography to raise awareness about the struggles their communities face and the central role they can play in mitigating the effects of climate change.

THE DRIVE TO RECORD THE WORLD'S CULTURAL DIVERSITY

In 2003, the adoption of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage sparked a

race to document (record, register and digitize) the world's vast cultural diversity. The risk of cultural loss arising from the climate crisis is fueling the urgency of this task.

In general, compiling and maintaining registers, lists and inventories is a practical way for these communities to maintain and preserve their intangible cultural heritage and to safeguard their rights and interests. But such documentation, which includes photography, is not always straightforward. First, because often it is undertaken by individuals (ethnologists, folklorists and anthropologists), institutions (museums and archives) and governments (ministries of culture) with no cultural ties to the Indigenous peoples or local communities represented. Second, because such initiatives sometimes exclude women and younger members of these communities whose perspectives can go unrepresented. Third, if Indigenous peoples and local communities are to document their own intangible cultural heritage, they need the technical skills to do so and a sound knowledge of IP to manage the rights that flow from that process.

Documentation of traditional knowledge and traditional cultural expressions is not an end in itself but can be part of a broader approach to preserve and protect the rights of Indigenous peoples and local communities. For example, to benefit from the existing IP system, these communities could create visual records or snapshots of their culture and other contemporary adaptations of their traditional knowledge and traditional cultural expressions. Such works would automatically qualify for copyright protection and, depending on their nature, may also qualify for trademark and/or design protection.

This is not a perfect solution, but for some members of Indigenous peoples and local communities, this can be a source of income. As such, it is vital that initiatives to empower and support Indigenous peoples and local communities help these communities better understand how they can use the existing IP system to safeguard their interests.

In its current form, the IP system does not allow for the protection of "underlying" or "pre-existing" traditional knowledge. International negotiators at WIPO have been grappling with IP issues relating to genetic resources, traditional knowledge and folklore for many years. The largely oral transmission of these traditional forms of creativity and innovation, and the fact that this knowledge is held collectively, add additional layers to this complex IP debate.

About the WIPO Photography Prize for Indigenous Peoples and Local Community Youth 2021-2022

In celebration of International Youth Day in 2021, WIPO's Traditional Knowledge Division launched a Photography Prize for Indigenous Peoples and Local Community Youth 2021-2022 around the theme of Climate Change and Climate Action: Mother Earth through Our Lenses. The prize showcases and celebrates the creativity of young members of Indigenous peoples and local communities. It also seeks to raise awareness among these communities of how copyright can be used to protect their photographs.

Climate change has a serious impact on Indigenous peoples and local communities the world over and is of particular concern to young people. Aimed at young people – up to 30 years of age – WIPO invited participants to submit original photographs using any kind of device, including mobile phones. Participants were also requested to provide a statement about how their photographs express their feelings about the globally significant topics of climate change and climate action.

WIPO appointed a four-judge panel of internationally recognized photographers from Indigenous peoples and local communities to evaluate the submissions and select the winners.

Winners will receive a variety of awards, including photography equipment and related software licenses, as well as photography-related training and mentoring opportunities through WIPO's partners.

All entrants to the Photography Prize will be invited to join a virtual training on photography and copyright organized by WIPO, in cooperation with the International Confederation of Societies of Authors and Composers (CISAC). The interactive session will offer practical guidance on how copyright and its management can be useful to photographers.

Winners of the Photography Prize will be announced on International Mother Earth Day on April 22, 2022.

Photo: Joanderson Gomes de Almeida ©





CREATING A VISUAL ARCHIVE OF CULTURAL HERITAGE

Photography can be a powerful way for members of Indigenous peoples and local communities, in particular young members, to contribute to the conservation of their traditional knowledge and traditional cultural expressions.

“We are at a crucial moment in history where we have access to technology that can help us create a visual archive that represents who we are without intermediaries,” says Eli Farinango, a Kichwa artist and visual storyteller born in Quito, Ecuador and raised in Turtle Island, Canada.

“It is important to empower ourselves to visually represent those stories with nuance and care as the visuals we create will nurture future generations,” Ms. Farinango says. She uses her art to reclaim her ancestral memory and create a space for knowledge sharing with those she photographs.

“Being an Indigenous photographer means learning to intentionally use photography to visualize the joy, the struggles and the history of our communities from our own perspectives. [It] means to always remember that my work is done with consent, in reciprocity and with respect to those who choose to share their stories with me,” Ms. Farinango explains.

With the rise of social media and the ease of posting and sharing images online, raising the awareness among members of Indigenous peoples and local communities about how copyright can be used to protect their photographs is more important than ever.

BRINGING INDIGENOUS AND LOCAL COMMUNITY STORYTELLERS INTO THE FRAME

When it comes to photography, Danielle Da Silva, Founder and Executive Director of Photographers Without Borders, believes that Indigenous storytellers have been missing from the picture for quite a while. “It is important that Indigenous voices are amplified and that means every institution has to be intentionally building capacity for that to happen,” she says.

This view is particularly relevant given the role that Indigenous peoples are playing in the fight against climate change.

While accounting for less than 5 percent of the global population, Indigenous peoples have been responsible for the protection of over 80 percent of the world’s biodiversity for thousands of years. “We are at a crossroads where we are finally acknowledging the damage of the climate crisis we find ourselves in and have crucial choices to make about the path forward,” Ms. Da Silva says.

Recognizing the importance of this call, in 2021, WIPO launched a *Photography Prize*, targeting young members of Indigenous peoples and local communities and inviting them to capture images of climate change and climate action (see p. 42).

Climate change has an impact on Indigenous peoples and local communities everywhere and is a particular concern for young members of these communities. Although

Traditional Knowledge Division

Part of WIPO's work concerns the protection of traditional knowledge and traditional cultural expressions, for the benefit of Indigenous peoples and local communities and developing nations. This work also covers genetic resources and data. WIPO works directly with Indigenous peoples, local communities and governments to help them protect and promote Indigenous and local community innovation and creativity for their economic, cultural and social development. The WIPO Photography Prize falls within the scope of this work.

Acknowledgements

The WIPO Photography Prize was designed in consultation with an Advisory Board of members from Indigenous peoples and local communities, international organizations, governments and individuals working on climate change, biodiversity, photography, IP, media and entrepreneurship. WIPO is deeply grateful for their advice and support.

critical to the ongoing fight, Indigenous peoples and local communities are often those hardest hit by the effects of climate change, explains Jeremiah Kipainoi, an award-winning multimedia journalist from Kenya. Born and raised in the Maasai community, Mr. Kipainoi is known for his ability to capture powerful stories among Indigenous communities in Kenya.

“The theme [of the WIPO Photography Prize] stands out in these times of prolonged and intense droughts, population pressure and economic strife in my nomadic community,” says Mr. Kipainoi. “It is therefore important to tell the stories of the impact of climate change from their firsthand experiences,” he adds. Whether picking up a camera to document one's culture or giving a voice to those directly affected by such global challenges, Indigenous peoples and local communities are in a unique position to use their creativity – and the rights created in so doing – to shine a light on the gravity of the on-going crisis.

Indigenous and local knowledge is often the key to finding solutions to the climate crisis. As noted by Alexey Tsykarev, member of the UN Permanent Forum on Indigenous Issues (2020-2022), the WIPO Photography Prize is important because it “facilitates the sharing of Indigenous views on climate change [...] and positions Indigenous youth as emerging leaders in the mitigation of the consequences of climate change.” Noting that the competition is “not only about arts and awareness, he says it is “about making [Indigenous and local] communities stronger and more thoughtful at a time when their role at the climate negotiation table is growing.”

DRIVING CLIMATE ACTION WITH THE STORYTELLING POWER OF PHOTOGRAPHY

“Indigenous peoples are some of the most vulnerable, so it is very important to advocate and amplify their voices to understand the urgency of the situation we are in and how we need to change,” says Nayla Azmi, a Batak photographer, storyteller and conservationist based in Sumatra, Indonesia.

Having worked in the field for more than a decade, Ms. Azmi is passionate about conservation and the empowerment of women and other marginalized communities. She is a strong advocate for the need to recognize the traditional knowledge related to climate change mitigation and adaptation. This knowledge passes from one generation to another and is a form of community resilience. It supports conservation efforts by, and from the perspective of, Indigenous peoples and local communities. It also serves as a way to reclaim their identities and remind themselves (and others) of their role in protecting their lands. “I use my photos and storytelling as my power to drive change for the planet we live on,” says Ms. Azmi, encouraging others to do the same.

Developing and protecting your online brand: tips for the new entrepreneur

By **Kathryn Park**, Principal, Strategic Trademark Initiatives, Connecticut, USA

You've done it! Developed an online store, connected a YouTube channel, developed an app. You've lined up some investors and developed great content and merchandise. And you are working on developing a cool brand identity that will help you quickly monetize your hard work. Trademark protection is critical in establishing long-term protectable rights in the brand you choose. A brand identity comprises the name, trademark, logo, slogan and other indicia of the brand, such as color scheme (collectively, the brand). Most of this is protectable under trademark law in every country and jurisdiction.

DON'T RELY EXCLUSIVELY ON DESCRIPTIVE PHRASES

Often, the naming and branding part of any new venture is seen as the fun part of developing that business. You or your friends think of a clever name and logo. Or you've retained a branding consultant to help you pick a brand with staying power. Here are some important tips in that process.

Don't rely exclusively on descriptive phrases. Your technology may be the smartest of SMART choices, but no one can own a protectable right using that term. Generic terms, which describe the class of goods or services, are never protectable, so being minimalistic and calling your new fragrance simply "PERFUME" won't get you any protectable rights. And laudatory terms aren't usually protectable either, so a brand that names yours BEST won't gain you much in the way of protectable rights.

If a third party helped develop the brand, whether your best friend or a marketing and branding consultant, ensure you get appropriate agreements from everyone involved assigning all such rights to you or the company that will own and operate the brand. Otherwise, you will have headaches down the road when you need to file to protect your new brand and it is unclear who the legal owner should be.

Assuming you have avoided these common mistakes, you now need to take steps to ensure you can develop legally protectable rights in your new identity to avoid ending up in legal challenges by inadvertently copying another party's brand.

“With a little investment of time and capital, and good legal advice, your brand can be good to go!”

CONDUCT A TRADEMARK SEARCH

The trademark laws of most countries grant exclusive rights in the brand as used in connection with specific goods or services, provided that the brand, or something quite similar to the brand, even if not identical, is not already in use by a third party for the same or similar offerings.

The first step is to conduct trademark clearance searches to identify competing uses, which could present a challenge to your use. Applying to register your brand without taking this first step can be an extremely costly error, as filing fees are never refundable, and the cost of defending your brand, whether in court or in challenges at a trademark office, can be prohibitive.

SO HOW DO YOU SEARCH AND CLEAR YOUR PROPOSED NEW BRAND?

First, consider the geographic regions that will comprise your major focus. Are you targeting new customers in China and Indonesia? Is your market the United States or the European Union? Even if you plan big, and hope to be a global entity, searching the entire planet for similar brands is beyond the scope of even corporate behemoths, so define a starting point.

Next, consider your options for conducting such clearance. All trademark offices have databases of registered trademarks and pending applications that can be searched online without a fee. Many first-time brand owners will try to make the determination that a brand is clear for use based on such searches. While that effort is commendable, and can be a good first step, it is not enough to ensure the brand you want is available.

How can you interpret results where similar brands are revealed, or brands that are alike, which often cover a myriad of goods and services?

Trademark clearance or search firms can conduct comprehensive searches for the proposed brand. These reports are often very lengthy and can be complicated to review and interpret. While the search companies are always refining their products to make them easier for the non-trademark specialist to use, even so, dashboards and risk assessment tools may not accurately reflect the market in which your brand will compete. And importantly, search firms typically don't offer a legal opinion on the mark's availability, which can be critical if your rights are ever challenged.

GET LEGAL GUIDANCE

The best approach is to set aside part of your budget and seek legal guidance. A good trademark professional can order a clearance search tailored to your needs, review it with knowledge of trademark law and then provide guidance, pointing out potential pitfalls and perhaps developing a strategy to proactively manage them.

Photo: Yok_Piyapong / iStock / Getty Images Plus



Often, the naming and branding of any new venture is seen as the fun part of developing that business, but there are important steps in developing legally protectable rights in your new identity to avoid ending up in legal challenges by inadvertently copying another party's brand.

While law firms can be expensive, many have flat rates to conduct and advise on brand selection. If you are a small startup or a not-for-profit, some companies as well as law firms provide assistance *pro bono*. Law schools may offer clinics that help with such issues, too.

FILE AN APPLICATION TO REGISTER YOUR TRADEMARK

Let's say you've cleared your brand, and you are eager to start using it. Do you need to do anything more? The simple answer is yes. While you don't need to wait further to put your brand into use, you should immediately file trademark applications to register the trademarks, slogans and logos of your brand to protect them for the goods and services you are selling or offering.

In most countries, the United States being the greatest exception, the party that files the trademark first is the party that will be deemed to have exclusive rights to it. Filing as quickly as you can once you have cleared your brand is critical. In the United States, which requires actual use to achieve registration, prompt filing on an intent to use basis will protect your brand from subsequent filers, even if others have commenced use, provided you file a statement showing you have established use within an allotted time frame.

Where should you file? It is simply not cost effective to file your new brand in every country and jurisdiction under the sun. Start by filing in the jurisdictions where you plan to use the brand, and/or manufacture the products identified by the brand.

While most trademark offices allow owners to file directly online, there are reasons to consider using expert legal professionals. Filing will require some specifics, such as identifying the classification of the goods and services the brand will be used in connection with, potential disclaimers of descriptive parts of the brand and writing an identification of the goods and services to be offered with the correct terminology, to name a few.

While many of the online portals for official trademark offices provide tutorial help, filing *pro se* (on one's own behalf) can lead to difficulties down the line. Even more problematic can be using one of the myriad legal services companies that are not law firms, but which offer quick filing help. Often, these firms do little more than ask you for the information needed to file the form and do not flag any potential problems with the mark, such as descriptiveness or genericness or unregistrability, or other reasons. Even though some legal advice may be available for additional fees, these firms may not be equipped to deal with complex objections or inquiries from trademark offices.

The cost-effective solution, again, is to find experienced legal help. Many firms will offer flat fee arrangements, and there can be *pro bono* help as well. Your legal counsel can also aid your determination whether you should file your mark in multiple jurisdictions and, if so, help develop a comprehensive filing strategy to protect your brand.

Once filed, the trademark office scrutinizes the application and may raise questions or objections in the form of an office action. A lawyer should be able to advise you and draft a response to handle those questions and objections.

Skip down the road several months. Your brand is registered! You have exclusive rights in your new brand in your product categories! What does this mean for you in terms of next steps?

BUILD BRAND RECOGNITION

First, use your brand in a consistent manner so that it develops customer recognition. Brands like Coca-Cola, for example, are instantly recognizable in part because of the consistent use of the same color scheme, font and logo. Unless the brand is meant to keep changing color, or the name is one in which the font varies on purpose, and customers recognize these as attributes of the brand, keep your use consistent. If you filed to register a logo or the name in distinctive typeface, use the mark as it was filed. Deviations from this mean that

you may not be able to rely on your registrations should you need to enforce your rights.

Second, protect your brand by filing to register it as a domain name and secure your brand across social media platforms like Twitter, Instagram and others.

MONITOR YOUR BRAND ONLINE

You should monitor your brand online to ensure it isn't being misappropriated or misused. Often, your customers will be the first to let you know if that is happening. If you do come across such misuse, you will need to evaluate whether this use arises at a level, which would compel you to take action.

While imitation is the sincerest form of flattery, it can jeopardize the legal rights you've worked so hard to develop and protect. A demand letter asking that the use stop immediately is often the way to start, and again, this type of demand is best coming from legal counsel. If the injurious use is of an infringing domain name, there are procedures to challenge such use as well, which legal counsel can assist with relatively quickly and inexpensively.

If the infringing use is actual counterfeiting, in other words, fake products being marketed as if they were your products, you may need to take more aggressive legal steps, such as seeking relief in court, or asking for assistance from law enforcement. Those kinds of enforcement issues don't usually arise immediately, but typically only after a brand has established cachet within its target demographic customer base. If you have established a good relationship with an experienced trademark attorney, you will have a resource that can come to your aid quickly. Your lawyer may also help you determine if you should take proactive measures such as filing a copy of your registration certificate with various customs offices, which can then seize counterfeit goods at the borders.

With a little investment of time and capital, and good legal advice, your brand can be good to go!



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

Tel: +41 22 338 91 11
Fax: +41 22 733 54 28

For contact details of WIPO's External Offices
visit: www.wipo.int/about-wipo/en/offices

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For comments or questions, contact The Editor at WipoMagazine@wipo.int.

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WIPO Publication No. 121(E)
ISSN 1020-7074 (print)
ISSN 1564-7854 (online)