

IN COOPERATION WITH



UNITED STATES
PATENT AND TRADEMARK OFFICE ®

JULY 2023 Volume 39 Issue 07

Inventors

DIGEST

BIÑHO FLICKS INTO POP CULTURE STARDOM

GAME ON



Rebel Without a Pause

INVENTOR SPENT MUCH
OF HIS LIFE AS A FUGITIVE



\$5.95

PRSRT STD
U.S. POSTAGE
PAID
MARCELINE, MO
PERMIT #13

Are you an inventor filing a U.S. nonprovisional patent application for the first time?

If yes, the **First-Time Filer Expedited Examination Pilot Program** may be for you.

The USPTO supports diversity in innovation by providing programs that increase involvement from women and other underrepresented groups. Expediting the first office action may reduce time-based barriers for inventors otherwise unable to participate in the patent system.

To apply

You must file a "Petition to Make Special" (Form PTO/SB/464).

You may be eligible if you have:

- Filed a utility nonprovisional patent application meeting certain guidelines
- Not been named as an inventor on any other nonprovisional application
- Filed your application electronically using Patent Center (in DOCX format)
- Completed your application when filing for acceptance into the program
- Qualified for special status based on income
- Received reasonable training in the basics of the patent application process



To learn more, visit
www.uspto.gov/FirstTimePatentFiler

*This program is an initiative of the
Council for Inclusive Innovation (CI²)*
www.uspto.gov/ExpandingInnovation



UNITED STATES
PATENT AND TRADEMARK OFFICE ®

Contents

July 2023 Volume 39 Issue 7



22



38



ON THE COVER
Ryan Follesé and Josephine Skriver playing Biñho in Iceland; details on page 33. Photo by Alexander DeLeon (@Bohnes)



24



14

Feature

28 **Flickin' Awesome**

Biñho's 5-Year Rise to Table Game Phenomenon

Inventor Spotlight

22 **Pumping Up Privacy for Moms**

Women's Lactation Pads

24 **When Inventing is Kid's Stuff**

Varied Products for Children

Departments

6 **Your USPTO**

News, Upcoming Events

10 **Editor's Note**

Strong Note for IP Rights

11 **Everybody's Talking**

Jack Daniel's in High Spirits

12 **Bright Ideas**

Innovation That Shines

14 **Time Tested**

Rebel Without a Pause

18 **Lander Zone**

Patently Simple Advice

20 **Social Hour**

Get Real With UGC

34 **Inventing 101**

Finding Opportunities

36 **Meant to Invent**

5 Fatal Flaws by Inventors

38 **Prototyping**

Don't Limit Yourself

40 **IP Market**

Fast Flop?

42 **Eye on Washington**

Track One is a Good Move; More ChatGPT Concerns

46 **Inventiveness**

Focus on the Fun and Fascinating



Give no quarter to Patent Pirates.

Or they'll take every
last penny.

Our ideas and innovations are precious. Yet Big Tech and other large corporations keep infringing on our patents, acting as Patent Pirates. As inventors, we need to protect each other. It's why we support the STRONGER Patents Act. Tell Congress and lawmakers to protect American inventors.



SaveTheInventor.com

JOURNEYS OF INNOVATION

From Inspired to Inspiring

Damian Earley's participation in Ohio Invention League helped propel him to invention successes, and motivate siblings **BY WHITNEY PANDIL-EATON**

It was a blustery fall day in Columbus, Ohio, in 2018 when then-12-year-old Damian Earley was taking his boxer dog, Jagger, for his daily constitutional in their Clintonville neighborhood. The boy observed several trash cans had overturned in the wind—spilling the landfill-destined, single-use plastic containers, fast-food wrappers, and other garbage into the narrow urban streets and alleyways of his neighborhood.

The sight of plastic containers rolling along side streets, grocery bags mangled in residential chain-link fences, and everyday refuse strewn about the streets left an impression on the seventh-grader.

"I like the beauty of nature, and it's pretty sad to me that some aspects are disappearing," he said, highlighting several environmental disasters in recent memory. "The environment has always been very important to me. I really want to make the world a cleaner place."

An inventor since third grade, Damian learned how to tackle real-world problems big and small through his participation in the Ohio Invention League. Similar to the National Inventors Hall of Fame's Camp Invention, the nonprofit organization offers free STEM education to K-12 students.

Robin Hilsmeier, executive director of the league, said approximately 6,000 students participate annually and nearly 500 go on to compete in the league's district, regional, and state-level invention competitions. Winners can earn between \$150 and \$2,500 CollegeAdvantage 529 Savings awards.

A young legacy

Damian was introduced to the invention league through a school assembly in second grade.

"They did activities, games, and had wacky hairdos," he said. "It made [inventing] seem really interesting and fun."

That excitement led him to participate in the program at the local, state, and national level, winning awards at each for his diverse set of inventions: the "Drone D Medideliverer," a drone delivery system for prescription medications; a multi-task robot butler designed to entertain, feed, and water pets called the "Dog BonE"; and the "Octglove," a glove that extends the finger-reach span for pianists.

But his latest invention, "The Garbage Lot," cemented Damian's legacy as an inventor.

Recalling the sight of the garbage-strewn streets a year prior, then-eighth-grader Damian began researching and designing a weighted platform for residential garbage cans that had a locking mechanism to keep the cans in an upright position.

"I liked my idea," he said. "But I never thought it would go this far."

Damian submitted "The Garbage Lot" to Ohio's Invention Convention competition in 2020. After winning the "Industry Innovator Award" in the environment and sustainability category on the state level, Damian's invention was submitted to the national competition—where he won first place for ninth grade and received a Patent Application award.

When his invention finished in first place nationally at the ninth-grade level, Damian Earley received a Patent Application award that enabled him to get free patent application services from a law firm that specializes in intellectual property. He got his patent in about a year.



The award enables the inventor to receive free patent application services from a law firm that specializes in intellectual property. Victor Kernus, patent attorney with Cantor Colburn LLP, worked on Damian's application process.

Utilizing pro bono services

Having written more than 1,000 applications, Kernus said Damian's patent process—which took approximately one year—was quick. He received his patent in January.

"Trash cans are a very dense art ... there are thousands of patents on different trash can options," Kernus said. "He found a niche, and that niche was fulfilled by his invention."

Depending on the length of the prosecution, the cost to obtain a patent can be from \$10,000 to \$40,000, he said. Due to the high cost, Kernus said pro bono work in the intellectual property field is vital. Statistics bear that out.

The Patent Pro Bono Program run by the United States Patent and Trademark Office provides free patent preparation, filing, and prosecution assistance to low-income and underrepresented inventor groups through its nationwide network of not-for-profit regional programs. To date, program assistance has resulted in more than 2,000 patent application filings that might otherwise have not been possible because of cost or lack of access to legal expertise.

Additionally, several regional organizations provide pro bono services. For example, Minnesota-based LegalCORPS's Inventor Assistance Program provides free legal representation to low-income inventors attempting to obtain a patent for their invention in North Dakota, South Dakota, Minnesota, Iowa, and Wisconsin.

After serving as a competition judge and providing pro bono services for several years, Kernus said the young inventors involved in the

invention competition hold a special place in his heart.

"It's fun. I'd take them all [on as clients] if I could. These inventors are so excited to go through the process. Their excitement is infectious."

Damian's excitement for innovation was evident from an early age. His father, Matt, said his son was a very creative child who loved to build, draw, and create.

Creative presentation

Damian's creativity and intrinsic motivation to succeed was also noticed by his teachers.

Sarah Priebe, who taught him language arts and social studies in sixth grade, recalled an assignment that required the students to research and give an oral presentation on a person and geographic region. She said Damian came dressed up in a costume—fake mustache included—and presented the material in a way that she hadn't seen from students in the four previous times she had taught the lesson.

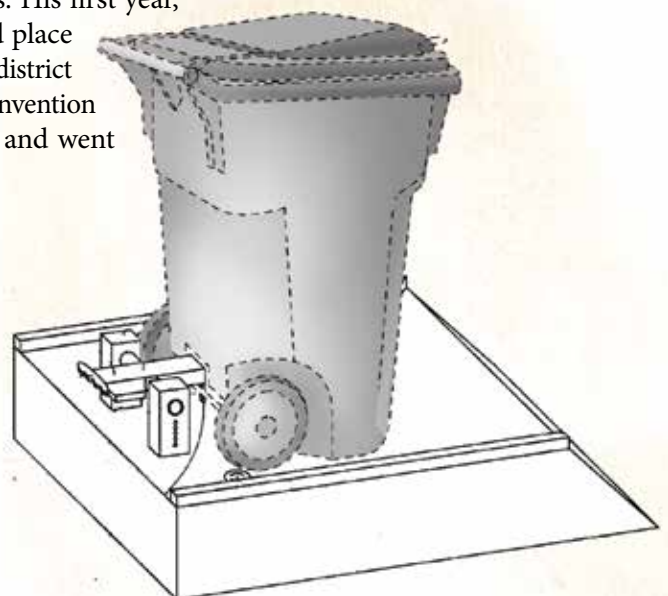
"You can tell he put a lot of time and practice into it," she said. "It's not something you see often."

Priebe continued to witness Damian's intrinsic work ethic when she became the gifted curriculum coordinator at the middle school and worked with him through his eighth-grade year. Because gifted students don't seem to need to work as hard to excel at school, Priebe said keeping them motivated can be challenging in her experience.

"Damian was always engaged, always listened, always ready," Priebe said. "He's just a great kid."

Damian's work ethic and attention to detail brought success in the invention convention competitions. His first year, he won third place in the school district Invention Convention competition and went

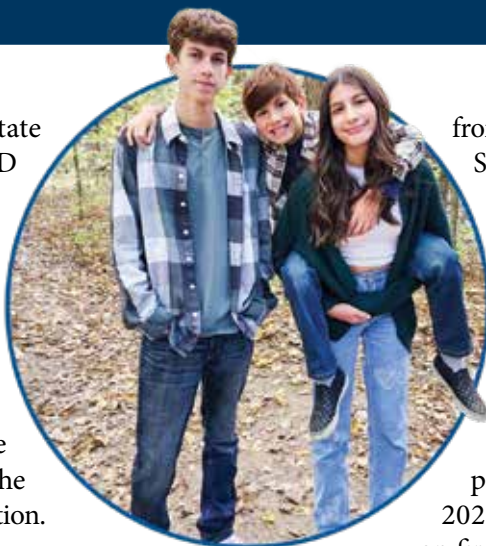
The then-eighth-grader began researching and designing a weighted platform for residential garbage cans that had a locking mechanism to keep the cans in an upright position.



The success of Damian (left) in the invention league competition spurred siblings Xavier, 11 (center), and Elena, 14 (right), to their own participation and success.

on to compete at the state level with his “Drone D MediDeliverer” device.

Each of Damian’s inventions has advanced to at least the state level of the invention competition. After winning at the National Invention Convention, his “Garbage Lot” device competed in the Global Invention Competition.



Siblings follow suit

That success inspired his younger siblings Elena, 14, and Xavier, 11, to create their own inventions and participate in the invention league competition.

“I saw Damian had a great time, so I wanted to try it, too,” Elena said.

In fourth grade, Elena invented the “Mold Monster,” an absorbent ring made of polymer material that can be placed in the door seal of

front-loading washing machines. She came up with the idea after hearing her mom complain about odors emitting from the washing machine.

Another invention, the “MicMask,” has a built-in microphone and amplifier to increase the voice projection of a person wearing a protective mask. Created in 2021, Elena’s mask invention won first place for her grade level in the state competition. Both of her inventions were invited to compete in the National Invention Convention.

Xavier has participated in invention competitions four times. He began his career in innovation in first grade with his invention “Brick Drone,” a drone with arms that can transport heavy objects for people with reduced strength or mobility. Other inventions include a shoe shield—created to protect sports-playing surfaces from damage from cleats—and “Eyebuds,” blue screen glasses with attached headphones and microphone to increase comfort during online learning.

Xavier won third place in the state competition for his grade level for “Eyebuds” and went on to compete in the National Invention Convention.

This story was edited for brevity. See the full story at uspto.gov/learning-and-resources/journeys-innovation.

Each month, the USPTO’s Journeys of Innovation series tells the stories of inventors or entrepreneurs who have made a positive difference in the world.

WHAT’S NEXT

FREE TRADEMARK BASICS: The USPTO’s eight-module Trademark Basics Boot Camp returns July 11. All of these Tuesday events, which conclude with a question-and-answer session and offer means for finding help, are live via Webex from 2 to 3:30 p.m. ET.

Module 1 will cover definitions and types of trademarks; benefits of federal registration; selecting a trademark; and filing and registration. Please register by July 10.

Module 2, on July 18, will cover trademark basics; application workflow and timeline overview; and post-registration workflow overview. Please register by July 17.

Module 3, on July 25, will cover trademark basics; the likelihood of confusion; searching in TESS; and a summary of search principles. Please register by July 24.

To register for any of the boot camps, see the event calendar at uspto.gov/about-us/events.



NEWS FLASH

DOCX OPTION EXTENDED: As the USPTO continues to work with stakeholders to ease the transition to patent application filings in the DOCX format, the Office is extending, until further notice, the option for applicants to upload a backup PDF version of their application with their DOCX version. The backup pdf option, which carries no fee, was first offered in April 2022.

The transition is an important part of the USPTO’s efforts to use all available technology to strengthen patents and reduce pendency times.

Additionally, through a final rule officially published in the Federal Register, the USPTO is delaying the effective date of the non-DOCX filing fee from June 30, 2023, to the new date of Jan. 17, 2024.

Visit uspto.gov/patents/docx for more information about filing patent application documents in DOCX.

How the PTAB Interprets Your Claim

Broadest Reasonable Interpretation standard and Phillips standard are used by judges and examiners

Patent claims capture the scope of an invention and define the meets-and-bounds of protection available for the invention. A patent's written description describes the invention and informs the meaning of the terms used in the patent claims. The USPTO interprets the meaning of words in the claims by referring primarily to the written description—and, on occasion, to other sources.

During the application process and before a patent is issued, claims are interpreted using the broadest reasonable interpretation (“BRI”) standard. During trial proceedings and after the patent is issued, claim language is, by default, given its plain and ordinary meaning, commonly called the Phillips standard of claim interpretation.

The BRI standard. In this consideration, examiners and Patent Trial and Appeal Board (PTAB) judges, during appeals of examiner rejections, give claim terms their ordinary usage as they would be understood by one of ordinary skill in the art. This standard provides for rigorous examination and minimizes the possibility of interpreting a claim more broadly than justified after a patent is issued.

An example: When a claim uses a value of “about 10,” the claim may be interpreted as covering values of nine to 11 if it would be reasonable for the ordinarily skilled artisan to do so.

Under the BRI standard, examiners and the PTAB also consider if the applicant provides his or her own definition of claim terms or phrases in the written description. For example, if an application related to portable computers defines “computer” in the specification as excluding a hand-held calculator, the examiner *must* apply that definition to the term computer when examining the claim. But without an express definition, the broadest reasonable interpretation of “computer” might include a calculator.

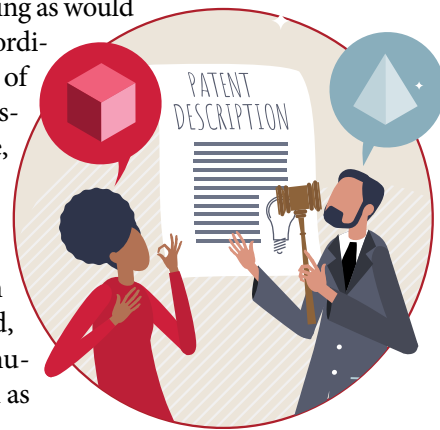
It is important to note the word “reasonable” in the BRI standard. “Reasonable” ensures that examiners and the PTAB do not interpret claim terms out of the context of the invention.

The Phillips standard. The PTAB conducts trials known as *inter partes* reviews and post-grant reviews to determine whether an issued patent satisfies the statutory requirements for patentability. In these trials, the PTAB applies the Phillips standard for claim interpretation.

Under the Phillips standard, claims are given their plain and ordinary meaning as would be understood by a person of ordinary skill in the art in view of the specification and the prosecution history. For example, in the context of an electrical connection, a “continuous connection” might require a continuous connection in time—i.e., always connected, or it might require a continuous connection in space, such as physical contact.

Under the Phillips standard, both connection in time and space might be necessary, while BRI might encompass the situation where connection in space or time only is required. Often, the written description must be consulted to understand and interpret the claims to sort out such questions.

In review: The BRI and Phillips standards are similar. But the Phillips standard includes review of the prosecution history of the application. So if the applicant makes a statement during prosecution of the application, such as an argument as to why the prior art cited by the examiner does not anticipate the claims, that type of statement could inform the meaning of claim terms and would be relevant after the patent issues during an IPR.



The United States Patent and Trademark Office (USPTO) is responsible solely for the USPTO materials on pages 6-9. Views and opinions expressed in the remainder of *Inventors Digest* are those of the writers and do not necessarily reflect the official view of the USPTO, and USPTO is not responsible for that content. Advertisements in *Inventors Digest*, and any links to external websites or sources outside of the USPTO sponsored content, do not constitute endorsement of the products, services, or sources by the USPTO. USPTO does not have editorial control of the content in the remainder of *Inventors Digest*, including any information found in the advertising and/or external websites and sources using the hyperlinks. USPTO does not own, operate or control any third-party websites or applications and any information those websites collect is not made available, collected on behalf of nor provided specifically to USPTO.

Fight for IP Rights Is Not Going Away



Finally! Some Twitter “news” that matters.

In mid-June, 17 music publishers—including the three largest in the business—filed a \$250 million-plus lawsuit charging the social media giant with “massive copyright infringement.” These publishers hold the music rights for Adele, Drake and IP-obsessed Taylor Swift, to name a few.

Given the fact that social media strongholds Facebook, Instagram, YouTube, TikTok and SnapChat have already cut deals with music publishers and labels, you could say the lawsuit was overdue. Or, you could read David Israelite say it.

“Twitter stands alone as the largest social media platform that has completely refused to license the millions of songs on its service,” the chief executive of the National Music Publishers’ Association said in a statement. “Twitter knows full well that music is leaked, launched, and streamed by billions of people every day on its platform. No longer can it hide behind the (Digital Millennium Copyright Act) and refuse to pay songwriters and music publishers.”

So, what does this mean for the “average” inventor who has invented a promising new gadget or the eleventy-seven thousandth version of a better mousetrap? Two answers come to mind.

First, in an era when the Supreme Court routinely ducks cases that could help indisputably define what is patentable subject matter, lawsuits like this one and the (victorious) lawsuit by Lynn Goldsmith in the Prince prints case against the Andy Warhol Foundation are positive signs that IP rights still matter.

Second, the suit is another salvo fired against megacorporations that act as though IP rights are little more than a painful itch. Twitter’s response to the complaint showed a bullying arrogance. Per the *Los Angeles Times*:

“In response to questions about the lawsuit, Twitter’s press department sent an auto-reply of the poop emoji.” This from a company led by Elon Musk, who said last year that “patents are for the weak.”

So, let’s be grateful for every action—big and small—that aims to protect each person’s singularly innovative and creative outputs.

—Reid

(reid.creager@inventorsdigest.com)

Reid will be a speaker at “Preliminary Marketing & Advertising,” part of the Successful Inventor series by the USPTO and the Licensing Executives Society-Silicon Valley Chapter, July 19 at 4 p.m. PT. Details: uspto.gov/about-us/events/successful-inventing-preliminary-marketing-and-advertising

Inventors

DIGEST

EDITOR-IN-CHIEF
REID CREAGER

ART DIRECTOR
CARRIE BOYD

CONTRIBUTORS
ELIZABETH BREEDLOVE
LOUIS CARBONNEAU
DON DEBELAK
JACK LANDER
JEREMY LOSAW
APRIL MITCHELL
EDIE TOLCHIN
GENE QUINN

GRAPHIC DESIGNER
JORGE ZEGARRA

INVENTORS DIGEST LLC

PUBLISHER
LOUIS FOREMAN

WEBSITE ADMINISTRATOR
ELIZABETH BREEDLOVE

FINANCIAL CONTROLLER
DEBBIE MUENCH

© 2023 Inventors Digest, LLC. All rights reserved. Inventors Digest, LLC is a North Carolina limited liability company and is the publisher of *Inventors Digest* magazine. INVENTORS DIGEST and INVENTORS’ DIGEST are trademarks of Inventors Digest, LLC. Reproduction or distribution of any materials obtained in this publication without written permission is expressly prohibited. The views, claims and opinions expressed in article and advertisements herein are not necessarily those of Inventors Digest, LLC, its employees, agents or directors. This publication and any references to products or services are provided “as is” without any expressed or implied warranty or term of any kind. While effort is made to ensure accuracy in the content of the information presented herein, Inventors Digest, LLC is not responsible for any errors, misprints or misinformation. Any legal information contained herein is not to be construed as legal advice and is provided for entertainment or educational purposes only. Interested parties and inventors seeking legal advice should consult a lawyer.

Ad rates, subscriptions & editorial content:
520 Elliot Street
Charlotte, NC 28202
info@InventorsDigest.com
www.InventorsDigest.com
reid.creager@inventorsdigest.com

CORRESPONDENCE

Letters and emails in reaction to new and older **Inventors Digest** stories you read in print or online (responses may be edited for clarity and brevity):

"Spared and Spurred"

(June 2023):

I have rarely commented on the details of the day of the [Sen. Paul Wellstone] plane crash in written documentation—out of respect for the families of my friends lost—but the writer of this article wrote a very respectful and beautifully worded piece.

What a fantastic piece of storytelling, just a great cadence and wonderful writing.

—MOLLY WILSON



CONTACT US

Letters:

Inventors Digest
520 Elliot Street
Charlotte, NC 28202

Online:

Via inventorsdigest.com, comment below the Leave a Reply notation at the bottom of stories. Or, send emails or other inquiries to info@inventorsdigest.com.

RULING: CAUSE FOR A JACK DANIEL'S TOAST?

How far can a company legally go when it parodies another company's brand characteristics for its own benefit?

The Supreme Court drew a line in the sand in *Jack Daniel's Properties v. VIP Products*, ruling unanimously that VIP violated the spirit maker's trademark rights when it recast the iconic whiskey bottle as a dog toy that associated the alcohol with ... poop.

In the unanimous June 8 ruling, SCOTUS decreed that VIP—which has long parodied other beverages including Corona beer and Mountain Dew—got too close for comfort with its dog toy that is shaped just like the Jack Daniel's bottle; uses the same type font; and has a name (Bud Spaniels) that is similar to the whiskey product.

It didn't help VIP's case that in a takeoff on the classic "Old No. 7 Tennessee Sour Mash Whiskey" on the Jack Daniel's label, the toy has a label that declares: "Old No. 2 on your Tennessee carpet." It adds that Bad Spaniels is "43% POO BY VOL."

Justice Elena Kagan said trademark law is about avoiding consumer confusion about the source of a product. A cardboard tag on the dog toy that says it is "not affiliated with Jack Daniel Distillery" apparently was not enough.

Inventors Digest asked trademark and counterfeit expert Mark Lee, a Harvard Law graduate and co-founder of MarqVision, whether the excrement references gave Jack Daniel's added ammunition. He pooh-poohed the notion:

The high court found "the Bad Spaniels toy was not protected by the First Amendment because it was not transformative enough (also the key issue in the recent copyright battle over Andy Warhol's Prince prints). The court found that the toy was 'merely a copy of Jack Daniel's bottle

with a few minor changes,' and that it did not add anything new or creative to the original work."

Lee added: "Because the design looks strikingly similar to an average consumer, Bad Spaniel had an uphill battle."

A district court initially ruled for the whiskey company because of possible confusion about the source of the toy. The U.S. Court of Appeals for the 9th Circuit reversed that decision, saying the lower court did not consider the parodic nature of the product.

The Supreme Court had a little fun with this case, with Kagan at one point singing from the song "Barbie Girl"—"Life in plastic, it's fantastic"—in a reference to an earlier trademark dispute with toymaker Mattel. —Reid Creager



BRIGHT IDEAS



Punks

WIRELESS, NEAR-EAR AUDIO COMMUNICATIONS SYSTEM

aleck.io

Punks advertises “ultra clear audio while ... staying aware of the environment around you” for bicyclists with open-face helmets.

These slim, true wireless speakers offer Hi-Fi, near-ear audio and double as a clear voice, unlimited-range group communications system for your group. Controls such as Party Mode (continuous talk) and Push-to-Talk are at your fingertips for talk with riders anywhere in the world.

The speaker’s 22-by-14mm oval design provides high sensitivity to increase volume without zapping battery power. The speaker is angled slightly inside the enclosure to give it more directional power.

Punks will retail for \$149.



Nebula

SPACE-INSPIRED, TECH ART MUSIC SPEAKER

boltbolt.io

Nebula purportedly lets you “feel” the music, featuring the latest ferrofluid display and a sleek, modular design that honors the exploration of outer space.

It features four high-fidelity speaker drivers to create 360-degree stereo sound. You can pair Nebula with your phone while the ferrofluid music visualization dances in sync with the rhythm.

In Standard mode, use the BOLT Key to unscrew the signature bolts, detach the shells, and reattach the bolts to their original position. This transforms Nebula into Flaunt mode to showcase the speaker’s insides.

With a future retail price of \$1,089, Nebula is to be shipped to crowdfunding backers starting in December.





Oru Camp

ORIGAMI OUTDOOR
FURNITURE

orukayak.com

Lightweight (4 lbs. and up) and easily transportable, this furniture is made to add comfort for campers.

Features include built-in storage for food and gear; rigid and sturdy construction; stylish, contemporary design; advertised 1-minute-and-under assembly; easy cleaning, and illumination at night.

FlipCube, which functions as a stool, foot rest or side table, can hold 250 lbs. The PopLounge chair holds up to 300 lbs. SwitchTable can be used for dining and food preparation, or as a bench. It can hold 400 lbs.

FlipCube will retail for \$99, PopLounge \$189, and SwitchTable \$229. Shipping to crowdfunding backers is set for September.

"Name the greatest of all inventors. Accident." — MARK TWAIN

niostem

SMART WEARABLE
FOR REVERSING HAIR LOSS

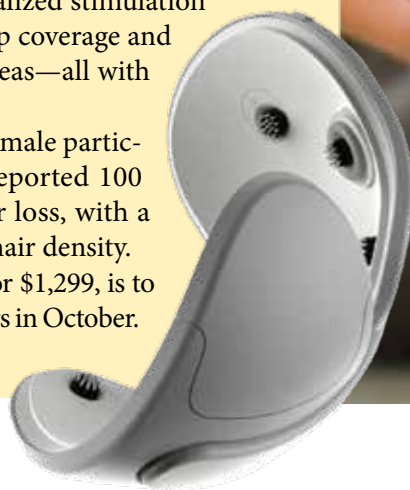
niostem.com

Advertised as "the world's first device to reverse hair loss," niostem offers a six-month, money-back guarantee.

Features include Stem Cell Reactivation Technology for reactivating hair growth; personalized stimulation for skin adjustment; and full scalp coverage and accuracy for targeting balding areas—all with no claimed side effects.

A company study involving 22 male participants and lasting six months reported 100 percent success in reversing hair loss, with a 19.3 percent average increase in hair density.

The product, which will retail for \$1,299, is to be shipped to crowdfunding backers in October.



Rebel Without a Pause

VICTOR OCHOA HAD MULTIPLE INVENTIONS AND PATENTS—AND TWO GOVERNMENTS ALWAYS ON HIS HEELS **BY REID CREAGER**

VICTOR OCHOA and his several hundred revolutionaries were trapped and sealed like a drum.

The band, protesting the policies of Mexican president Porfirio Diaz in 1892, had virtually no escape from the president's soldiers in the mountains. "He saw his men put up a gallant fight, but outnumbered, they fell one by one until Mr. Ochoa alone survived," according to transcriptions of newspaper articles that were donated to the Smithsonian Institution.

"Through a ruse, he managed to obtain the uniform of one of the regular soldiers and while on the retreat was espied and shot at in the belief that he was a deserter. Then started a chase which led through the mountain fastnesses, through treacherous ravines and gullies. It was a long traverse over three hundred miles, but the plucky Ochoa finally managed to obtain some aid and eluded his pursuers."

He escaped to Fort Stockton, Texas, while President Diaz offered \$50,000 in gold as a reward for Ochoa—dead or alive.

According to David Dorado Romo's book, "Ringside Seat to a Revolution: An Underground Cultural History of El Paso and Juarez: 1893-1923," the next few years for Ochoa were desperate and desperado times.

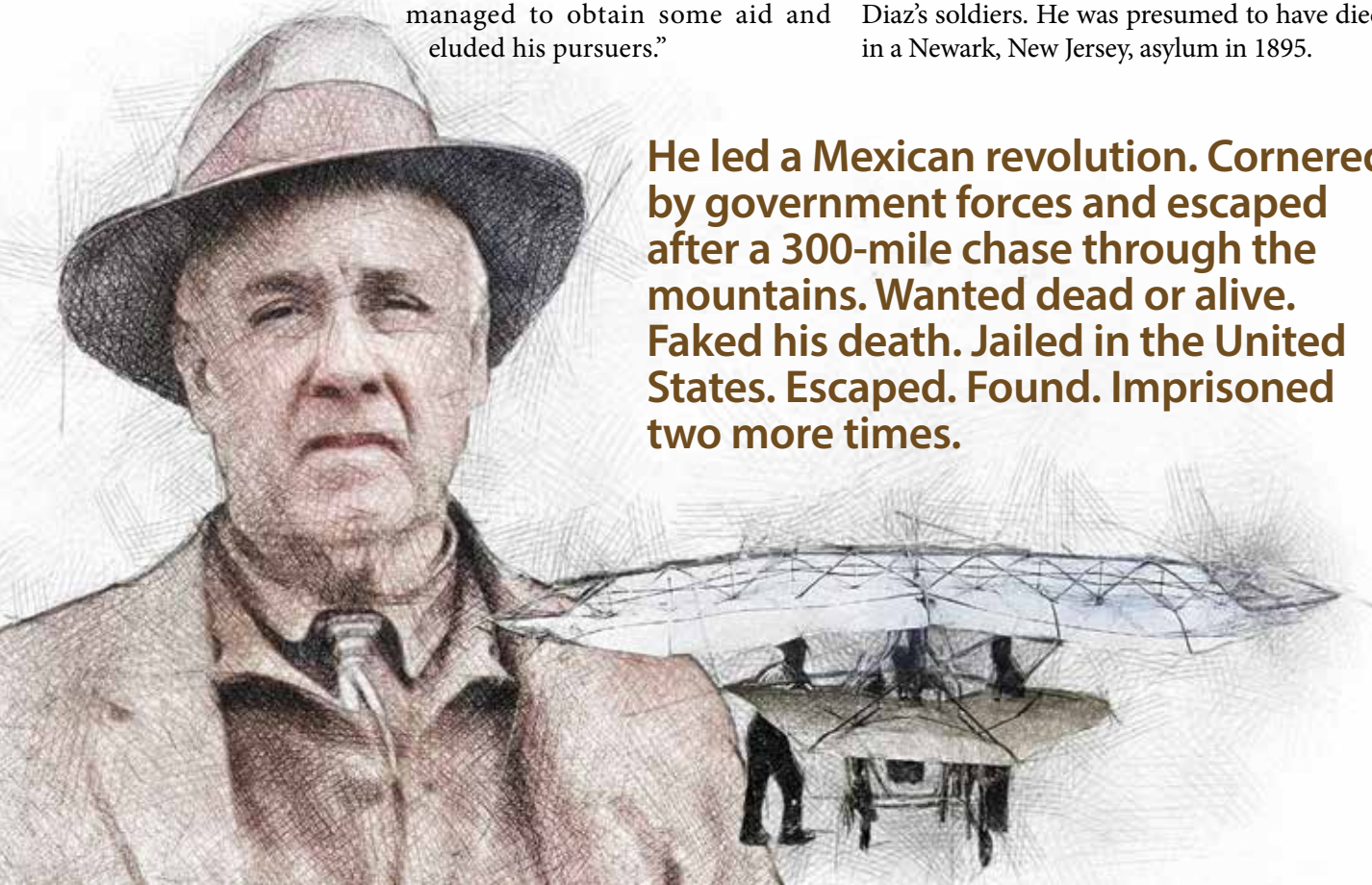
Because he had supplied and hidden Mexican dissidents in El Paso—a violation of U.S. neutrality laws—the Texas Rangers and the U.S. Marshal Service sought Ochoa's arrest. The manhunt ended in 1894, when they put him in the Pecos County Jail. He promptly escaped but was found.

Ochoa eventually spent 2 ½ years in a federal prison in Brooklyn. Back in Mexico, his men were operating in Chihuahua, where much of his land had been seized by the Mexican government in the early 1890s.

Ochoa faked his death to avoid capture by Diaz's soldiers. He was presumed to have died in a Newark, New Jersey, asylum in 1895.

One of Victor Ochoa's earliest aircraft prototypes was a collapsible monoplane with folding wings for easier storage that he mounted on two bicycle frames.

He led a Mexican revolution. Cornered by government forces and escaped after a 300-mile chase through the mountains. Wanted dead or alive. Faked his death. Jailed in the United States. Escaped. Found. Imprisoned two more times.



Archived intrigue

We can't give you the full story of Victor Leaton Ochoa. Nobody can.

There is too much to tell, too many details that are documented yet largely uncorroborated in the two boxes of Ochoa papers at the Smithsonian Institution Archives Center. Too much information that never made it into print.

But we can tell you that he was a prolific inventor whose most prominent work was the Ochoa Plane. And that he also was a journalist, union organizer, business owner and more—in addition to being a fugitive in two countries.

And that his life story could be the most movie-worthy of any inventor in the past 250 years or more.

Born in Ojinaga, Chihuahua, in 1850, Ochoa was raised in El Paso, Texas. He obtained U.S. citizenship in 1889.

According to a recent story in the *Mexico News Daily* by Sheryl Losser, Ochoa lost that citizenship when given the prison sentence. He sought extradition to his native country so he could continue his fight for the Mexican people, but President Grover Cleveland refused.

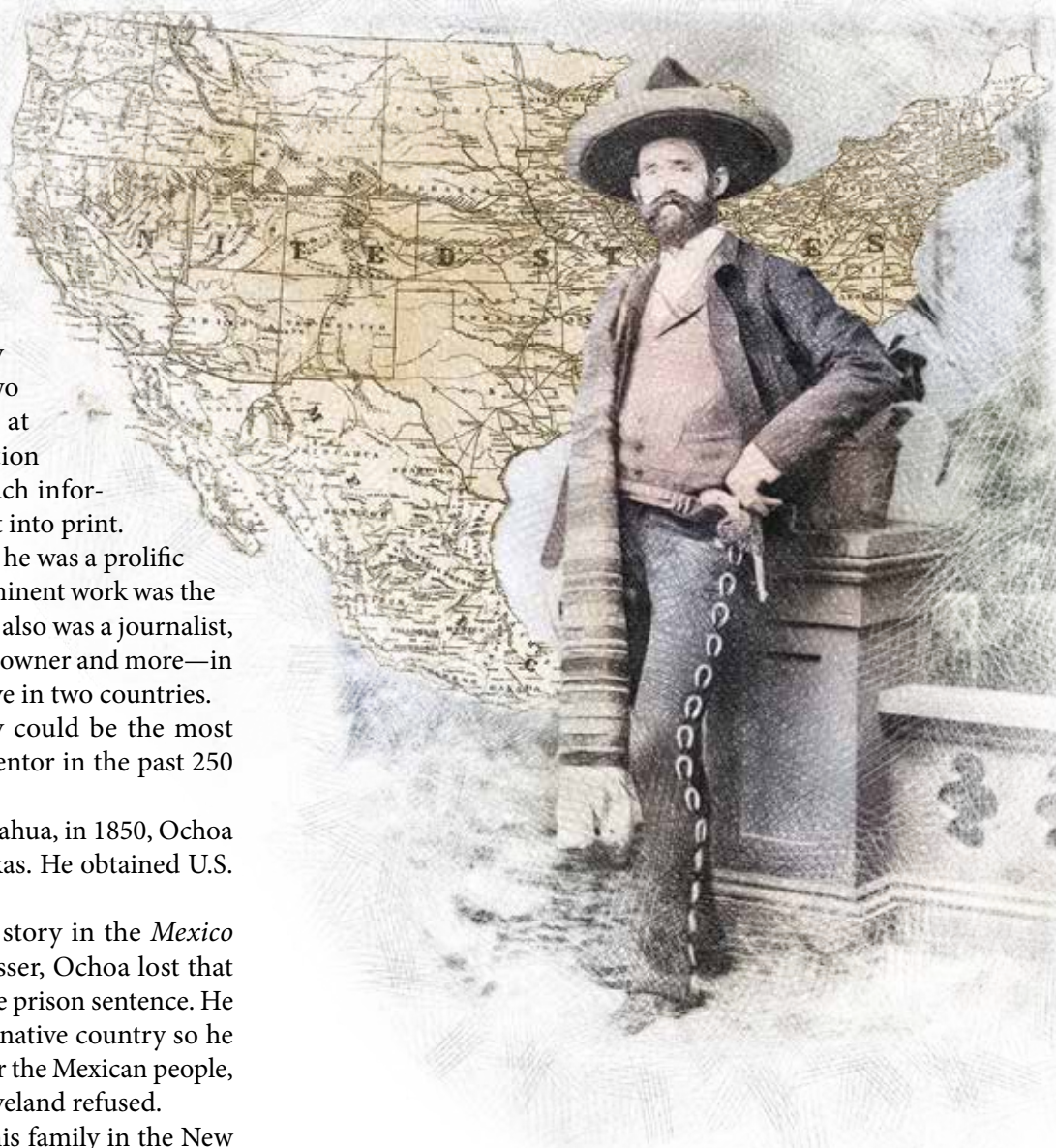
He settled down with his family in the New York/New Jersey area and began sketching possible inventions. A new life was about to take wing.

A mind in motion

Aviation fascinated Ochoa. One of his earliest aircraft prototypes was a collapsible monoplane that he called the Ochoa Plane, with folding wings for easier storage that he mounted on two bicycle frames.

The 250-lb. glider consisted of a mounted, six-horsepower motor with a seat for the operator below. The Smithsonian archived description is a testament to Ochoa's creativity and attention to detail:

"Ochoa's machine is made of a framework of steel spring and steel tubing which he has contrived to put together in such a manner that



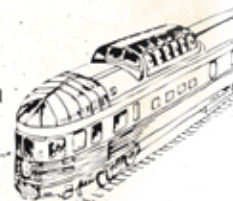
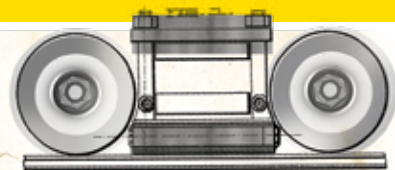
OCHOA'S PATENTS

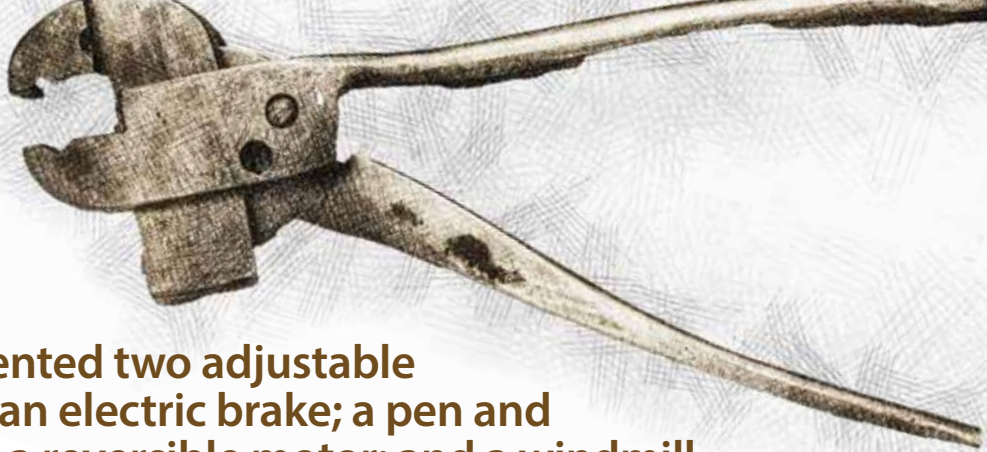


With the help of Watson E. Coleman, a solicitor of patents in Washington, D.C., Victor Ochoa filed and received patents in countries such as Czechoslovakia, France, Germany, Great Britain, Japan, Mexico, Netherlands, Poland and Spain.

Ochoa's U.S. patents include:

- Magnetic brake, U.S. Patent No. 867,147
- Reversible motor, U.S. Patent No. 718,508
- Rail magnetic brake, U.S. Patent No. 873,587
- Windmill, U.S. Patent No. 1,319,174
- Adjustable wrench, U.S. Patent Nos. 1,417,196 and 1,454,333





Ochoa invented two adjustable wrenches; an electric brake; a pen and pencil clip; a reversible motor; and a windmill.

it can be folded by working a lever. Over the framework is stretched a canvas covering. The plane is about 26 feet wide and the machine measures from front to back only 6 feet. The rear rudder is similar to a bird's tail."

To develop this and other inventions, he founded the International Airship Co. and the Ochoa Tool & Machine Co. Over the next couple decades, Ochoa invented two adjustable wrenches; an electric brake; a pen and pencil clip; a reversible motor; and a windmill.

The windmill again displays Ochoa's disruptive talents involving moving devices. The Smithsonian writeup says, "The idea is attractive because the power is furnished by nature and costs nothing in the first instance.

"The windmill is not circular like the ordinary windmill but consists of four arms, with a solid, shutter-like arrangement on each. These

shutters swing on hinges. While the wind is driving two of the shutters it lifts the other two, so that they offer the minimum resistance to the wind.

"Mr. Ochoa says his windmills cost one-fifth as much as the ordinary windmill to put up and gives a great deal more power. With a dynamo and storage batteries attached, it stores up electric energy that can be utilized in any and all ways, and costs nothing to produce beyond the first cost of installing the plant."

Back in and out of grace

Ochoa's alternating status as productive U.S. inventor/businessman and renegade took a turn for the better on Feb. 15, 1906, when President Theodore Roosevelt—with whom he eventually forged a friendship—accepted his request for a pardon and restored his U.S. citizenship.

All the while, he continued to monitor events in Mexico. Eventually, his passion for revolution stormed back to the forefront.

He returned to El Paso and founded two newspapers, *El Hispano-Americano* and *El Correo del Bravo*, in connection with decrying the evils of the Mexican government while fighting for the rights of the Mexican people. Smithsonian archives show that Ochoa was incarcerated again at the United States Penitentiary in Leavenworth, Kansas, on Feb. 18, 1917, and released on May 1, 1918. The reasons are unclear.

He never stopped marketing his inventions, though. While in Leavenworth, he wrote to the U.S. Navy to suggest it use his Ornithopter as a prototype for designing airplanes.

Ochoa moved to Sonora, Mexico, in 1936. He is believed to have died in 1945 at 94 or 95—an unusually long life for a man of that era who lived the most unusual of lives. ☺

INVENTOR ARCHIVES: JULY

July 12, 1895: **Buckminster Fuller**, an American architect who invented the geodesic dome, was born.

A geodesic dome is a spherical structure composed of triangular elements that form part of a network of circles, or "geodesics," on the surface. The theory was that these lightweight structures could be placed anywhere within the United States.

Fuller conceived of the domes with the help of artist Kenneth Snelson in the late 1940s. The lightweight lattice of intersecting icosahedrons was granted a U.S. patent in 1954.

Twice expelled from Harvard, Fuller earlier conceived of factory-made homes that could be flown by helicopter to a plot of land. That idea never caught on.



HELLO INNOVATION

We're Enventys Partners, your one-stop partner for building new products, creating new brands and breathing life into existing ones. Our efficient, collaborative approach helps you grow your business by creating and introducing innovative new products or selling more of the ones you already have.

Simply put, we bring products to life.

HOW WE DO IT



Product Development



Industrial Design



Engineering & Prototyping



Manufacturing



Sourcing



Market Research



Crowdfunding
(Kickstarter)



Digital Advertising
& Marketing



Social Media
Marketing



Public Relations

We've helped bring more than 2,500 products to market. Is yours next?

For more information and to view samples of our work, enventyspartners.com



Patently Simple Advice

THERE'S A LOT TO BE SAID FOR AVOIDING COMPLEXITY WHEN INVENTING—AND MORE TO BE SAID AFTER THAT **BY JACK LANDER**

WHEN DREAMING of your next invention, think simple. In fact, get in the habit of cultivating simplicity and being cautious about complexity when you are inventing.

Your advantages, generally speaking:

- You'll find it easier to visualize the invention's function.
- It will be easier to make your prototype.
- Your chance of patentability will be greater than with a complex invention.
- Your patent will be harder to successfully challenge.
- Your patent search will cost you less.
- Your patent preparation will cost you less.

These points about simplicity are a good setup for some general advice on inventing.

I have 13 U.S. patents and at least two foreign patents, so I've had quite a variety of positive and negative experience in the processing from A to Z.

Furthermore, I succeeded in reducing the number of components of the world's first disposable laparoscopic surgical instrument from 17 to three—and the attorney who filed the patent application had no early rejection of the claims. The patent was issued based on the lawyer's first draft, which is not typical. (The U.S. patent number is 5,030,206, if you are interested.)

Buzzkill alert

Now, for the advice.

First, most ideas we have will not make us a dime. And I'm an optimist by nature.

The reasons are simple. Unless we are inventing in a relatively new field, other inventors will have had the same idea, or nearly so, that we believe is our original idea.

I'm sorry to dampen your high hopes, but this is the experience of most inventors I've spent time with—especially early in their experience.

Don't fall in love with ideas too soon. Be prepared to find prior art in the form of a patent that appears to accomplish what your invention is intended to accomplish.

This means reading the patent's claims, which are enumerated at the end of the patent. This means learning how to locate appropriate patents, and learning how to read their claims. I highly recommend a book by David Pressman and Richard Stim titled "Patents for Beginners." (Please consider yourself a beginner until you have filed your first patent application.)

The book covers details on how to search with the assistance of the United States Patent and Trademark Office in Alexandria, Virginia, and in other major cities.

Patent agent, or attorney?

If you don't discover any prior art and you decide to file for a patent, you will need a patent agent or a patent attorney to prepare your application and file it. An application is not merely like an



application for a post office box; it is the full patent just as you see it when issued.

Eventually, you should be able to write your own application, but the first time around is a learning process. So, I recommend the patent agent or patent attorney as the preparer.

The difference between an agent and an attorney is that the patent attorney can represent you in court if you are infringed; an agent cannot. I like agents because they charge less (theoretically), and many of them come from industry as engineers or industrial designers.

It has been several years since I have filed an application using a patent agent, so I'm not current on the cost these days. But my guess is the prices start around \$10,000, so I suggest you shop around—not only for price, but for a person who impresses you due to his or her immediate understanding of your invention.

Have your agent or attorney perform a professional search even though you did your own. Then, if he or she finds prior art, ask for a little coaching to explain why you missed it—especially if that prior art rules out filing your application.

Just one fewer part? Hmmm

If your search discloses a patent that rules out your invention being protected by a patent, do a market search to find out whether the patent was licensed (and to whom), and whether the product is selling in the marketplace.

Assuming you found both answers positive, analyze the invention as disclosed in its patent, and think about being able to accomplish the same objective with one fewer part.

If you can, you may have hit the jackpot. The last I heard, you can patent an invention with one fewer component than the patent holder's.

But hold on! I can sense your heart racing in anticipation. Check it out with a patent agent or attorney before you go any further. It's a rare occurrence.

Then again, we inventors are known for creating rare occurrences. That's what gave us the electric battery, invented by Alessandro Volta in 1800, which started what became the electronics industry. I just couldn't get by today without my iPhone and all its complications. 📱

Jack Lander, a near legend in the inventing community, has been writing for *Inventors Digest* for nearly a quarter-century. His latest book is "Hire Yourself: The Startup Alternative." You can reach him at jack@inventor-mentor.com.



Introducing the CATERPEELER



genuinefred.com

April Mitchell
4A's Creations, LLC
PRODUCT DEVELOPER FOR HIRE
april@4ascreations.com



Hit your target



Since 1985, **Inventors Digest** has been solely devoted to all aspects of the inventing business. Other national magazines merely touch on invention and innovation in their efforts to reach more general readerships and advertisers. Advertise with *Inventors Digest* to reach our defined audience.

Inventors DIGEST

For more information, see our website
or email us at info@inventorsdigest.com.

Get Real!

Try Using UGC

AUTHENTIC USER-GENERATED CONTENT HAS MYRIAD ADVANTAGES IN YOUR OVERALL MARKETING STRATEGY **BY ELIZABETH BREEDLOVE**

IF YOU'RE like most inventors and entrepreneurs, you may at times find yourself overwhelmed by the task of effectively marketing your product in an increasingly competitive landscape. On top of that, perhaps you find yourself trying to navigate where and how to focus your marketing efforts.

Connecting with your target audience to sell your product and grow your business can be tricky—especially for inventors with small teams and not much extra time or resources to devote to marketing.

If these struggles resonate with you, you may benefit from incorporating user-generated content (UGC) into your overall marketing strategy, particularly your digital marketing strategy.

Learn more about how UGC presents a unique opportunity to connect with target audiences on a deeper level. Consider the following tips on how you can leverage this valuable resource to propel your brand forward and grow your business.

It's authentic, relatable

User-generated content refers to any form of content—images, videos, reviews, testimonials, social media posts, blogs or podcasts—that is created and shared by consumers or users of a product, service or brand. UGC is created by users with personal experiences or opinions related to a brand or its products, rather than be produced or paid for by the brand itself.

UGC has gained immense popularity due to its authenticity, relatability and potential to engage and influence others. UGC is seen as more trustworthy and influential because it comes from real users, offering genuine insights, experiences and opinions. It allows consumers to express their creativity, share their satisfaction and engage with brands on a more personal level.

UGC also enhances authenticity, builds trust, showcases social proof, and fosters a sense of community around a brand. By recognizing the value of UGC, inventors and entrepreneurs can tap into a gold mine of content that amplifies their marketing efforts.

Create brand advocates

One of the significant advantages of relying on user-generated content in your overall marketing strategy is that it has the ability to foster brand advocacy.

When customers voluntarily create content related to your brand, they become advocates, showcasing their positive experiences and spreading the word to their social circles. Inventors and entrepreneurs can encourage UGC by actively engaging with customers, running contests or challenges, or featuring user-created content on their social media platforms.

By doing so, you'll empower customers to become brand ambassadors, driving organic growth and expanding the reach of your marketing campaigns.

Foster trust

User-generated content plays an important role in building trust in your brand because it exudes authenticity.

When consumers see real people endorsing a product or service through their own content, it builds credibility and fosters trust. By incorporating UGC into their marketing strategies, inventors and entrepreneurs can humanize their brands, showcasing the experiences and satisfaction of real customers.

Additionally, using UGC can help foster social proof—a psychological phenomenon in which

people tend to copy the actions of others in a given situation.

UGC is a powerful tool for harnessing social proof, as it showcases real-world experiences and interactions with a product or service. Inventors and entrepreneurs can strategically curate and display UGC that highlights positive customer feedback, reviews, or testimonials, reinforcing the quality and value of their offerings. This influences potential customers' purchasing decisions, driving conversions and increasing sales.

Building a community

User-generated content has the remarkable ability to foster a sense of community around a brand. Inventors and entrepreneurs can create dedicated spaces or platforms where customers can share their experiences and interact with each other, such as Facebook groups or even comments sections on the brand's social media platforms.

By encouraging this type of content, fostering conversations and responding to user-generated content, you can establish a thriving community centered around your brand and product. \

In influencer marketing

Influencer marketing has become a staple in digital marketing strategies, and user-generated content plays a pivotal part of this strategy.

Collaborating with influencers who align with your brand's values and target audience can generate a wave of UGC. When influencers actively promote your product or service and their followers create content around it, you can tap into new demographics, increase brand awareness, expand your customer base and grow your business.

How to strategize

First, get organized. As you come across user-generated content online, you'll need a way to save it for later use. This can be as simple as a database built in a spreadsheet that contains information such as a link to the original content, a screenshot of it, and any other relevant information.

You should also make sure you get permission to share any content you save. You can either ask to use it after it's already been created,



User-generated content refers to any form of content that is created and shared by consumers or users of a product, service or brand.

or—if you decide to run a UGC campaign or contest—confirm permission before users submit content by clarifying your terms and how you'll use the content.

Once you're organized and ready to save and promote UGC, you can begin to consider which types of UGC you'd most like to use. This may include:

- Photos and videos of your product in action
- Unboxing videos, especially if you have fun or interesting packaging
- Hashtag campaigns, where you encourage your audience to make a specific type of post using a unique, predetermined hashtag for the campaign
- Contests to collect UGC where a winner is determined and given a prize
- Reviews, testimonials, customer stories and case studies

As you build out your UGC database, you can begin to promote and amplify the content you've collected. There are many different ways to do this: sharing the content organically in your social media feeds; resharing or remixing someone else's content; using UGC in your paid advertising. 📌

Elizabeth Breedlove is a freelance marketing consultant and copywriter. She has helped start-ups and small businesses launch new products and inventions via social media, blogging, email marketing and more.



Pumping Up Privacy for Moms

WOMEN'S PORTABLE LACTATION PODS ANSWER A NEED FOR MOTHERS ON THE GO **BY JEREMY LOSAW**

Mamava pods are typically found in public spaces such as airports and museums, and in the facilities of major employers.

THE IRONY of a frustrating situation was not lost on Sascha Mayer and Christine Dodson. When they began their careers as brand specialists for a Vermont design firm, their work took them all over the world. They were also starting families.

During their travels, “It was just a nightmare to figure out places to use a breast pump,” Mayer said. “The only private place to do that was the restroom.

“I had to make food for a new human in a place designed for the opposite experience.”

The need for a solution was obvious. So was their talent as designers. That’s when the idea crystallized.

“We should be designing freestanding units specifically for breast pumping.”

Guidelines show urgency

Guidelines from the World Health Organization and other health advocacy groups underscore the challenges of consistent breastfeeding over long durations.

They recommend breastfeeding for the first six months of life, and for as long as up to two years and beyond. However, only about one-third of infants are breastfed at one year.

It is difficult to keep up live feedings and pumping, especially for working and traveling moms. Although it is a law that employers must provide private space for moms to pump in the workplace, often there are no comfortable or desirable places to do it.

Mayer and Dodson used their years of expertise with brands and design to create their company, Mamava, 10 years ago. It builds bespoke lactation pods for nursing mothers, making it more comfortable and easy to feed and pump at work and on the go.

Mamava designs and manufactures portable lactation pods for breastfeeding or pumping. These provide a private space for mothers and babies that includes pods with built-in seating, lighting and fans for a custom and cozy environment.

Mamava pods are typically found in public spaces such as airports and museums, and in the facilities of major employers. They are even found in sporting venues such as Lucas Oil Stadium, home to the NFL’s Indianapolis Colts.



“Cleanliness was a key driver. The need to feel secure like you were not going to be walked in on was big.” —SASCHA MAYER

Human-centered features

For Mayer and Dodson, the first step to making Mamava a reality was to get approval from their bosses at Solidarity of Unbridled Labour to work on it. The studio loved the idea and was willing to let the team use resources to make it come to life.

As designers at heart, they took a human-centered approach to creating the lactation space. They conducted many interviews with potential users to gauge what was important before creating prototypes.

“Cleanliness was a key driver,” Mayer said, adding: “The need to feel secure like you were not going to be walked in on was big.”

She said controlling various light intensities was also seen as a key. “If you are pumping, you might want it really bright because it’s like working in a kitchen. If you are traveling with a baby and you need them to settle down, you might want it to be dim.” These features were added to the pod and app.

The shape of the pod was also very important for creating a peaceful and iconic space; the first iterations looked too much like a Porta Potty. This led them to create the more rounded and feminine shape of the current pods.

Liftoff at airport

Mamava was unveiled to the public in 2013, when the first pod was installed in Burlington (Virginia) International Airport. The fact that it is a smaller airport made it easier to convince management to try it, and it was in the inventors’ city.

The pods were designed purposefully to have a lot of space for graphics and branding—with the idea that companies would sponsor the pods and cover the cost for the place it was being installed and keep it free for moms.

Vermont-based Cabot Creamery was the sponsor for the first pod in Burlington. The installation was a great success, with rave reviews from moms and lots of media coverage.

There are no utility patents on the technology, but Mamava has an intellectual property portfolio

that includes design patents for the shape of the pod. The company also has trade dress protection, which also covers the style and build of the pod.

The technology has always been secondary to the mission. Mayer and Dodson wanted to put resources into the design of the pods and their quest to bring comfortable lactation to the masses.

The Mamava pods are manufactured locally in Vermont. The duo first hired out the job to a local company but eventually bought it out when Mamava started to grow. There is also overflow manufacturing in Wisconsin.

Dodson and Mayer have looked at overseas options, but they like having the product manufactured domestically. Besides, the large size of the product makes it more cost effective to do it in the States and avoid the cost and risk of shipping.

Expansive actions

Eventually, Mamava made such a big splash that the co-inventors quit at the design firm to run their company full time. They expanded the product line with an XL pod and a smaller pumping-only space called the Solo, for office use. They also added cellular IoT technology to make it easier to find and unlock pods in public places.

Their main mission now is to get as many pods into the world to make it as easy as possible for moms to breastfeed and pump.

“In the 10 years we have been doing it, initiation rates for breast feeding have increased 10 percent,” Mayer said. “I hope we have been part of influencing the culture.” ☎

Details: mamava.com

Jeremy Losaw is the engineering director at Enventys Partners, leading product development programs from napkin sketch to production. He also runs innovation training sessions all over the world: wearewily.com/international



Christine Dodson (left) and Sascha Mayer used their years of experience with brands and design to create their company.



When Inventing is **Kid's Stuff**

MOM AND HER 8-YEAR-OLD GIRL BUILD A THRIVING
PRODUCT LINE FOR CHILDREN **BY EDITH G. TOLCHIN**

THROUGH MY many years of interviews for *Inventors Digest*, readers know of my “Shark Tank” obsession. But I also watch the show to look for products for my almost-3-year-old grandson, Joshua.

Big Bee Little Bee, featured in October on “Shark Tank” Season 14, is a line of products for youngsters—including high-quality, creative, colorful arts and crafts, personal hygiene and household items. Great website, too!

We spoke with Amy Leinbach, who shares the biz with her young daughter and co-inventor, Marlo.

Edith G. Tolchin (EGT): How did Big Bee Little Bee come about, and what was the first invention you developed? Please share all the various products you both invented.

Amy Leinbach (AL): When Marlo was an infant, she screamed, as many babies do, every time she was taken out of the bathtub. We always tried to dry her as quickly as possible, but of course we had to do it safely. We’d lay a couple of towels on the countertop for cushioning and use another to keep her covered and dry her off.

When we got tired of that constant towel pile, I searched for a towel with a cushioned back.

When I discovered one didn’t exist, I made it. Along with the cushioned back, I also designed it to have little wings of the cloth to keep parts of her covered while we dried and diapered the rest of her.

It was a hit in our home, so I decided to make more. We called it the Snow Angel because that’s what it looked like. Parents and grandparents loved it, but sadly we needed to discontinue it after a time. It was simply too expensive to manufacture, and we couldn’t make it profitable as it had been engineered.

I learned a great lesson from that project: Always consider the cost to manufacture before completing the design.

The inventions we currently sell include the brand-new SoftShell Snap-Close Food Storage Container, ScrubBEE Easy-Grip Silicone Scrubber, Build-A-Straw Adjustable-Length Silicone Straw, and Marker Parker Grip-Tight Coloring Organizer (my personal favorite, as it was invented by the Little Bee!).

EGT: Have you had any snafus during product development?

AL: The word “snafu” pretty much defines the past two years for us! Throughout COVID, we experienced a massive supply chain breakdown and went without our best-selling product for almost an entire year. We’d finally remedied the situation in the summer of 2022 and were able to begin scaling again.

But, a plot twist: We got our supply chain cut off entirely recently—completely out of the blue—and for every one of our products. However, having experienced the grind for so long, building the strong network we now enjoy, we were

The Build-A-Straw Adjustable-Length Silicone Straw lets kids create the straw height they want. Each straw is contained in its own slim travel case.



“We have seven issued patents—both utility and design—and one pending. ... Although I believe in bootstrapping the early stages of product development and business, I don’t feel that way about patents.” —AMY LEINBACH

able to rebuild it completely within weeks. We also brought down our cost of goods significantly, so a seemingly terrible situation on its surface was actually a blessing in disguise!

EGT: What were the various reactions from the “Sharks,” and did you make a deal?

AL: That was certainly a unique experience! Proud mom that I am, I knew the Sharks would be wowed by Marlo’s Marker Parker and adore her creativity, kindness, and confidence.

But me? I wasn’t so sure. Since we’d seen enough episodes, we knew going in that there would be a decent chance of the Sharks seeing me as a serial inventor—apparently not their favorite trait. And alas, that’s what they saw (“inventoritis,” to quote Mark Cuban).

Although we didn’t receive offers, Marlo and I still consider it a win because we worked as a team, gave it our all, and experienced something extremely cool together!

EGT: Are you manufacturing in the United States, or overseas?

AL: When we first made the Snow Angel, we manufactured it 15 minutes from our home. Unfortunately, the high cost to manufacture combined with a very high scrap rate made continuing in the U.S. untenable.

Although we moved the manufacturing overseas, we still couldn’t bring the cost down to a point that allowed for an acceptable margin. We now manufacture entirely overseas to keep our cost of goods low and our products accessible to as many people as possible.

EGT: What is your experience with third-party lab testing (for children’s products) to comply with the many government regulations?

AL: Fortunately, we’ve had no difficulty complying with government regulations. Our product quality is of such

great importance to us personally, and I think it’s for that reason that our products have always passed without question.

EGT: Tell us about your “giving back” policies.

AL: We’re proud members of One Percent for the Planet and partner with Well Aware, an organization that implements sustainable, clean water systems that drive development and empower communities in East Africa. Over the years, we’ve also gifted thousands of ScrubBEEs to children without permanent homes.

EGT: Are any of your products patented?

AL: We have seven issued patents—both utility and design—and one pending. Some took a couple of years to issue, and one issued in just a couple of months.

Although I believe in bootstrapping the early stages of product development and business, I don’t feel that way about patents. When it comes to nonprovisional patent applications, I always have a trusted attorney prepare it.

EGT: Have you had any knockoff issues?

AL: I once spotted a copy-cat ScrubBEE listing on Alibaba. They used our text, our images, everything. Fortunately, we never saw the physical knockoff hit the market.

Amy Leinbach and her co-inventor daughter, Marlo, appeared on “Shark Tank.”





The Marker Parker Grip-Tight Coloring Organizer, invented by Marlo, firmly grips marker caps to allow kids to remove a marker without removing its cap.

We've seen recognizable companies make products that seem to borrow essential elements of our innovations, but that's never bothered us too much.

EGT: What guidance do you have for novice inventors, particularly inventions for children?

AL: If you want to make a product for children, consider starting by observing the way they approach challenges.

If they run up against a particular challenge repeatedly, maybe they could benefit from a tool to help them. If that tool doesn't exist, you may be the perfect person to create it! Identifying a problem and creating something that solves it is what inventing is all about.

If you have a product idea, bootstrap the early stages as much as you can. You usually don't need fancy prototypes right off the bat. Marlo and I have made prototypes out of Play-Doh,

aluminum foil, Styrofoam, duct tape, cardboard, and more. Even something very rough can help others see what's in your imagination.

Also, look for a maker space in your area. One may even be at your library. We've 3D-printed prototypes for free at ours!


As long as you remain open to learning, you can do so much on your own. Talk to people, ask questions, join Facebook groups, watch a lot of YouTube.

Remember that you don't have to have everything mapped out ahead of you. Focus on going from Point A to Point B. It's tempting to try to tackle everything from A to Z off the bat, but in my experience, it isn't helpful. ☺

Details: bigbeelittlebee.com

Edith G Tolchin has written for *Inventors Digest* since 2000. She is an editor (opinionatededitor.com/testimonials), writer (edietolchin.com), and has specialized in China manufacturing since 1990 (egtglobaltrading.com).





The Opinionated Editor

Edith G. Tolchin

Editor • Copywriter • Journalist • Author

Helping you to say it **WRITE!**

www.opinionatededitor.com
editor@opinionatededitor.com
@QueenWrites
845-321-2362

Climb the Charts

Since 1985, **Inventors Digest** has been the world's most consistent and trusted friend to the independent inventor.

No. 1 in inventor resources.

No. 1 in education.

No. 1 in inventor news.

No. 1 in inspirational and entertaining stories.

No. 1 in the most innovative and useful products.

We have always been a labor of love, depending on the financial support of benefactors who are as invested in the future of inventing as we are.

Please consider a sponsorship at one of the following levels:



Your sponsorship comes with attractive advertising opportunities in the magazine and at inventorsdigest.com, as well as other possible perks.

PLATINUM
SPONSORS

GOLD
SPONSOR

SILVER
SPONSOR

ENVENTYS
PARTNERS

UNITED STATES
PATENT AND TRADEMARK OFFICE
uspto

SAVE THE
AMERICAN
INVENTOR



THE MICHELSON INSTITUTE FOR
INTELLECTUAL PROPERTY

Subscribers: Pledge \$50, \$100, \$250, \$500, or \$1,000 a year to help support the world's longest-running magazine devoted specifically to inventors and inventing. We'll include a mention of your name or the name of your organization each time we run this notice, and at **inventorsdigest.com**. Thank you for helping to keep alive the spirit of innovation.

For more information, call 704-333-5335 or email info@inventorsdigest.com.



Flickin' Awesome

FORMER COLLEGE BASKETBALL PLAYER'S TABLETOP GAME
AN OVERNIGHT HIT WITH STAYING POWER **BY REID CREAGER**

IN 2019, Nick Witherill was spending \$5 a day on sponsored Instagram posts for a tabletop game that was a figurative roll of the dice. It was the biggest little money he ever spent.

A year after inventing Biñho—a game in which players try to finger-flick a ball into their opponent’s goal—the former college basketball player had opened a Shopify store. Two months later, he was delighted to learn that the content team for superstar country singer Jake Owen bought one of the games after seeing one of the Instagram posts.

Owen became a big fan and brought Biñho with him on tour. “He eventually gave us a full-blown, 2-minute, organic Instagram story post telling people they were missing out if they didn’t have a Biñho board,” Witherill said.

Before long, the game had gone viral online. The public response, in today’s slang, was “sick.” Suddenly, the game’s future was very healthy.

Other celebrities jumped in. “I’ll never forget receiving back-to-back Shopify orders from (NFL and NHL stars) J.J. Watt and Sidney Crosby, us having a feature on Barstool’s Foreplay Pod, and a feature on ESPN’s front page about ‘the board game that is fueling the Steelers’ playoff run.’”

5-year flash

That momentum—a key dynamic in business as well as in sports—hasn’t stopped since.

The pandemic that began in early 2020, a boon to board and tabletop games alike, helped stoke



the flames: “It didn’t hurt that our first professional digital ad campaigns kicked off on March 1, 2020. It was a great mini perfect storm.”

Today, Witherill estimates 40,000 games have been sold, with a minimum 60 percent growth in the company annually since that watershed 2019 year. His company has several licensing deals and counting—the first two with the historic Arsenal and Liverpool football clubs. A patent four years in the making became official in May; “Biñho” is also copyrighted.

His team recently struck a deal to be sold in select Dick’s Sporting Goods stores—part of a mission to get the game into more big-box retailers. There are over 60 Biñho Clubs throughout the United States and Canada, often featuring wildly competitive tournaments. A celebrity tournament is in the idea stages.

Witherill looks back on those “good ole days” and muses about what he has accomplished in five years. Family and friends have been “extremely supportive.

Facing page: Nick Witherill (in brown shirt) plays Biñho with (clockwise) Jessie Greenwood, Chad Johnson and Faith Howard. **Above:** Witherill’s Classic Green Turf edition is one of seven game products.



Witherill built his first Biñho board five years ago this month, having been inspired by South and Central American wood games that involved flicking coins or little pieces of rolled-up paper into goal areas.

“They accepted me as the black sheep in the family a long time ago, so when Biñho started to pick up in popularity they just laughed. They were like, ‘You *would* make a random soccer board game into a viral business.’”

The hunger game

Witherill’s sports connections from his college playing days—he was the first commitment of then-Washington State head coach Tony Bennett, now the coach at 2019 NCAA champion University of Virginia—have undoubtedly helped him promote Biñho (pronounced BEANyo). But his success with the game is largely a deliberate collision at the intersection of perseverance and creative vision.

His unflinching competitiveness and hunger to learn date back to his unspectacular freshman year at Washington State: six games; 20 minutes played; two points; five rebounds, all in the 2008-09 season. A pounding series of

hard lessons fortified his confidence rather than deflating it.

A star guard at Highland High School in Gilbert, Arizona, where he averaged 15.9 points per game as a senior, Witherill committed to play at WSU after his sophomore year. At that point, his intended college was an also-ran in the Pacific Athletic Conference; he had reasonable expectations to get a lot of playing time in college.

Then ...

“While I was committed to Washington State during my junior and senior seasons, it became a powerhouse under Bennett. I was, essentially, overrecruited. And that is an understatement.

“Klay Thompson (who went on to NBA stardom) was not only in the same recruiting class as me but played the same position. Needless to say, I didn’t win that position battle.

“What I did learn was to make the most of your situation. It was a confidence hit to get my a-- kicked by (WSU standout) Taylor Rochestie

and Klay every day, but I made it a mission to compete every day as hard as I could, not caring how embarrassing it was at some points.”

Witherill transferred to Grand Canyon University for his final three years, where he started most of that team’s games. By then, he was stronger mentally: “Just being around guys like Rochestie, Klay and Aron Baynes, I watched how they not only approached basketball but life. It definitely gave me a new perspective.”

No prior art? Really?

In fact, almost exactly five years before the mid-June date of this *Inventors Digest* interview, Witherill had just returned to America from Europe and was preparing for Thompson’s Anta tour in China. He built his first Biñho board in mid-July, having been inspired by South and Central American wood games that involved flicking coins or little pieces of rolled-up paper into goal areas.

An informal prior art search begat a pleasant surprise. “I thought it would be awesome if there was a soccer version of these games—which I assumed there already was—so I went on Amazon and Google, and there was nothing that caught my eye.

“At that point I went down to Home Depot and Michael’s and bought a bunch of random materials to try and create what I thought I wanted at the time. The original prototype looks nothing like what it looks like now, but my friends and family had so much fun playing on that thing.

“This led to me developing a real product that I didn’t have to make by hand but that still felt authentic and aesthetically looked like something you would keep out on your coffee table.”

His fledgling team started selling its first “real” SKU in April 2019 through its Shopify store; the Jake Owen PR windfall was soon to follow.

So were some more hard knocks that were more painful than any practice beatings at Washington State.



Nick Witherill

Born: Phoenix, Arizona

Home: Phoenix, Arizona

Relationship status: Partner
Michelle Gomez (also book-keeper, sales rep and more)

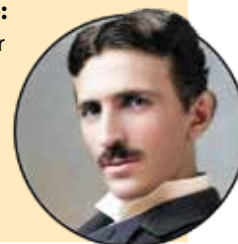
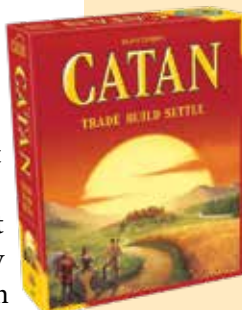
Education: Bachelor of Science
in Finance and Economics,
Grand Canyon University, 2012

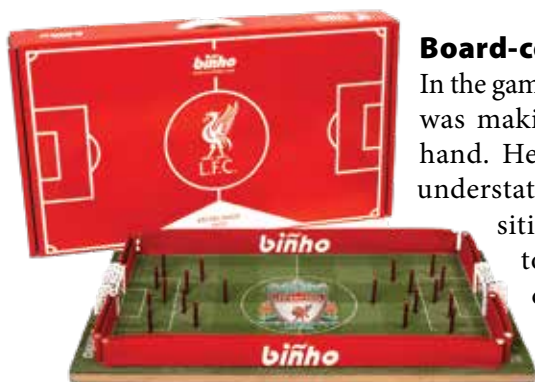
Hobbies: Playing guitar, playing
Zelda, skateboarding with my husky puppy
Eevee, traveling—also a competitive Catan player,
ranked in the top 10 Catan players
on Board Game Arena

Favorite quote: “You can
ignore reality, but you can’t
ignore the consequences of
ignoring reality.” —Ayn Rand

Favorite movie:
Any by filmmaker
Wes Anderson

**Favorite inventor/
entrepreneur:** Nikola Tesla





Above: Biñho Classic: Liverpool Edition dovetails with the company's licensing deal with the historic football club.

Below: Sharp-shooting NBA superstar guard Klay Thompson, a friend and former teammate of Nick Witherill at Washington State University, demonstrates his Biñho shooting technique at a launch party.

Board-certified

In the game's early days, Witherill was making all the boards by hand. He said it is a massive understatement that the transition from hand-made to self-assembly was difficult.

"I just didn't want to lose any quality in the process, and the fact that it was the first product I've ever created didn't help," he said. "We found a random vendor in California that said that they could help us make this product self-assembly. It sounded great to my ignorant ears, so I said, 'Let's do this!'"

"What a mess. We tried rushing the updated product to market for 2020 Christmas orders, and probably half the boards didn't function. I remember rushing to put out a 'How To Build your Biñho 2.0' video right after sending about 500 of these products out, and throwing a rivet against the wall during the filming because it wouldn't screw in.

"However, over time we ironed out the issues and found a boutique manufacturer that is high quality, flexible and fluid in its processes."

The website binhoboard.com now lists seven different boards, ranging from the Classic to the Arsenal and Liverpool editions. Some of the boards have sold out and likely will not be produced again; Witherill envisions them as possible collectibles.

"I actually saw a first-edition Biñho board from summer of 2019 on eBay for \$170. That was pretty funny; it retailed for \$60 at the time. If we do our job of staying true to our brand, I think it will cool to see people start tracking and identifying different manufacturing runs and collecting what will one day be collectibles."

Although leveraging a product scarcity by enabling it to become a collectible is a tried-and-true marketing tactic, the company's strongest marketing genius is in the energy and creativity used to sell the product.



Marketing mettle

On a website video, “New rules and gameplay updates,” a guy in a referee shirt who calls himself Deeker Carrier of the equally stupidly named National Biñho Reffing Coalition explains how the first player to shoot in a game is determined by rock-paper-scissors—or arm wrestling—with briefly melodramatic displays of both. Some of his instruction is provided as he sits on a sofa and has his drink refreshed by a personal assistant.

Another video shows players of all ages celebrating and lamenting moments from the game, including one frustrated player picking up the board and two-handing it out the window.

Biñho is marketed as much more than a board game or a competition. It is marketed as a phenomenon with energy and attitude.

“We are blessed to have a strong and talented team that understands the vision of what we are trying to achieve,” Witherill said. “Chad Johnson (Operations/Marketing/Product Shots/Video Editing and pretty much like 20 other hats—my right-hand man) and Tony

Panici do a lot of the design/photo/video work, and I direct the campaigns to ‘Biñho-ify’ the content to achieve our final product.

“Our main goal is just to have fun, engaging and aesthetic content, whether it is a satire piece, a cool trick-shot or whatever. We don’t limit ourselves when it comes to marketing, which is why there is always a fresh and exciting feel.”

The growing cadre of celebrities who have embraced the game (in addition to the aforementioned: Ryan Sheckler, Kurt Warner, Seth Joiner, Cole Tucker and T.J. Watt) adds to the coolness factor. Not only does Witherill foresee a celebrity Biñho tournament, he has a goal to begin holding a world championship every year.

“Eventually, we want to build it into something along the lines of what European football does, where all these different league champions compete for the title. Keeping Biñho ultra-competitive is a big goal.”

With creativity, innovation and energy at the top of its game, it’s easy to wonder what’s next. A smiling Witherill said only that “We have some very large plans.” 🍷

ABOUT THAT COVER PHOTO!

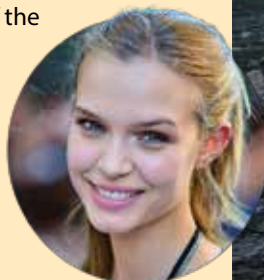
It’s really no big deal—just a brilliantly fun and creative picture taken near a waterfall in Iceland by the former lead singer of the rock band The Cab who is also known as Bohnes. Just a guy who married a Victoria’s Secret model and started a clothing line called 42799 because that was Frank Sinatra’s mug shot number when he was charged with seduction and adultery in 1938.

Nick Witherill calls the picture “legendary—one of my all-time favorite Biñho pics.

“It was taken in the summer of 2021 by musician Alex DeLeon. That’s his girlfriend (now wife) and Victoria’s Secret model Josephine Skriver playing against his friend, Ryan Follesé, who is also a musician (the lead singer of the Nashville group Hot Chelle Rae).

“It was Alex’s idea. He had been a big fan of the game since the early days, and we developed a friendship. So one day he was like, ‘I’m going to Iceland, and I’m going to bring the board to take some cool shots of it out there.’

“I was blown away. It was so cool, but that’s a testament to who Alex is.”



Finding Opportunities

PROFITING FROM THE RIGHT IDEA IS OFTEN A MATTER OF SEEING POTENTIAL THAT MAY NOT BE OBVIOUS **BY DON DEBELAK**

THE QUESTION is not whether inventors frequently have multiple ideas; the question is which one to pursue.

Even in winning categories, some products are better than others. Here are some ways to help you to a winning formula. These principles apply across the board—whether you are looking to produce your own product, license it to a manufacturer, or strike a joint venture deal of some kind. Look for:

Strong market potential

One such opportunity is when a new market is emerging. For example, when the scrapbook industry started, many of the suppliers were inventors and small companies that have since become mainstays of the industry.

Also, just because a product category is stale and there haven't been any new products for a time doesn't mean it can't be an opportunity for you.

A few years ago, wallpaper had become a stale product—and then a flourish of activity developed with faux painting sponges, speckled paint for entertainment rooms and glazing print applications.

Licensing opportunities

Companies often move as quickly as possible when they are at a competitive disadvantage. Some inventors stay in an industry, often one where they have worked before, and watch for opportunities created by new product introductions. They move to offer a product to companies that are at a disadvantage in a product category after a new product introduction by another company.

Companies with slowing growth rates can also offer a winning opportunity. A company that has led the market in the past sometimes will run out of ideas, and its growth will slow. These companies are very interested in ideas that keep their sales rates increasing.

Winning products

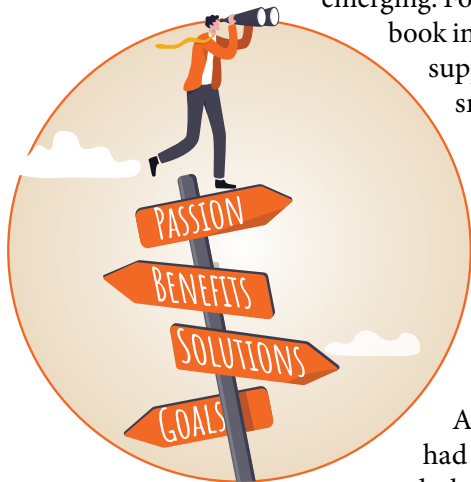
Once you have an opportunity, create a product with a high “wow” factor that will accelerate your product into the market. Follow these guidelines to have a much better chance for a successful idea.

- **Appeal to customers with passion.** People with passion know which products are available, often spend freely, and will pay a premium for products they want. High-income mothers with babies, people with beloved pets, dedicated golfers and gourmet cooks are all examples of people with passion.
- **Seek clearly understood benefits.** Products for which people immediately grasp the concept have a strong chance for success: a cell phone that also does email, a smart meter in your home to control energy.
- **Look for total solutions.** Customers prefer buying one product that takes care of their entire need. The concept of a total solution applies to new products and services. This is the core concept behind a catering business, as well as the concept behind products such as the iPad, the new generation of cell phones and Swiffer, the all-in-one cleaning product.
- **Help customers meet their goals.** Customers buy products for their own reasons, not your reasons. ☐

Don Debelak is the founder of One Stop Invention Shop, which offers marketing and patenting assistance to inventors. He is also the author of several marketing books, including Entrepreneur magazine's *Bringing Your Product to Market*. Debelak can be reached at (612) 414-4118 or dondebelak@gmail.com.



©EAMESBOT/SHUTTERSTOCK



BE A CATALYST FOR IP EDUCATION

- **400+ colleges & universities**
- **Over 25k learners worldwide**

Michelson IP is spearheading a vibrant movement to spread intellectual property awareness and ensure equitable access to knowledge of IP rights

OUR IMPACT

- Industry-Touted, Open-Access Education Resources
- National Partnerships and Projects
- Network of Experienced Subject Matter Experts, Innovators...& more!

THE MICHELSON INSTITUTE FOR
INTELLECTUAL PROPERTY

michelsonip.com



5 Fatal Flaws

COMMON INVENTOR MISTAKES, AND HOW TO AVOID THEM

BY APRIL MITCHELL

B **EING AN INVENTOR** as well as coaching new inventors for several years, I have witnessed many mistakes—often repeated ones.

Most of these mistakes can be avoided. Here are some things to know and consider before you start lighting the fireworks and showing everyone your invention.

1 Not enough research on the front end. Often, inventors do not conduct enough research before they get started on their invention.

You should know which products are on the market that are similar to yours. If your invention solves a problem, know which products exist that solve that same problem, as well as how your product differs.

You should know which patents exist that could interfere with your invention and how you can use those issued patents to learn how to set your invention apart from what has been done.

The fix: Use Google and Google Images to search for products on the market that may be similar to yours. To research patents, I like to go straight to the USPTO website as well as using Google Patents to see what is patented, using several different keywords.



2 Rushing to file a patent. Many inventors think this is the first thing to do when they have an idea. I know, because I was one of them!

So many people say “You’d better patent it” that have no experience at all, and inventors listen to them. Patents can be very expensive and should not be the very first thing we should do as inventors.

The fix: I do some patent searches first. I then decide on the parameters for what I think is possible to patent.

For the new concepts that I think may be patentable, I file a provisional patent application. I am not a lawyer and cannot give legal advice, but I have realized that by filing a PPA I buy myself some time to make changes and/or figure out all the details.

The PPA is good for 12 months. When it is close to expiring, I decide whether I should hire help from a patent attorney for the invention. I weigh whether I have interest in a concept, as well as whether IP is important to the licensing company.

3 Spending too much money. I’ve heard countless stories of inventors depleting their life savings on their invention and even mortgaging their home before they know whether there is a need, want or demand for their invention.

Stop! There are other things you can do first to help you decide whether to spend a good amount of money on your invention.

The fix: Find out whether there is interest for your product from consumers. You can first make a virtual prototype and sell-sheet to use to start pitching your inventions to potential licensees.

If it is inexpensive to make a looks-like, works-like prototype for which you can easily video the usage and benefits, do that, too. If you get interest from several companies, use that knowledge

to decide whether to pay for the necessary and more expensive prototype that a company may want or require to move forward.

Note: It is often possible to license a product by only showing CADs and virtual prototypes, or a looks-like, works-like prototype. Companies have their own design team and may not require a prototype like we tend to think they do. Other companies may need to “test” a prototype.

4 Quitting your job. Inventors often don’t realize the long timetables the inventing process can take, and quit their job to work on their invention or pitch it. This is a poor decision. I have yet to see it work out in favor of the inventor, because the process most often takes a lot longer than anticipated.

For example, if I have a new concept ready and have started pitching, it could take from 6 months to over 2 years to land a licensing deal—and that is if I land one! Once it’s licensed, it can take 12-18 months before it hits store shelves.

Then, let’s think about sales: We can hope for big numbers, but we never know how a product is going to sell.

The fix: As tempting as it may be to quit your job and work full time on your product(s), I recommend holding on until you are bringing in the same money or more with your royalties.

Remember that licensing deals typically are for three years—give or take a year or two—and you do not know if it will be renewed. I made sure I had several deals signed with income for those products, as well as deals signed that were on their way to market and more deals in the works before quitting my job to invent full time.

We always have to be working on the next idea because we don’t know how well one will sell—or if the rug can be pulled out from underneath us. I also recommend having some other way to make side income if needed.

5 Giving up too easily. This is a tough business. We have to grow some thick skin, because we hear “no” a lot.

RESIGNATION

Before quitting your job to focus on your invention, I recommend holding on until you are bringing in the same money or more with your royalties.

Remember that all those nos can get us closer to a yes—and it only takes one yes from the right company to make a big difference.

The fix: Keep working at it, and believe in yourself and your product. Nonetheless, remember not to spend lots of money so you go broke while trying to live your dream.

Take a pause or break if you must, and get back at it. Remember, it needs to be the right product, in the right place at the right time. Some things take longer to align.

I believe that avoiding these mistakes will save you time and money, which is always a win! 🍀

April Mitchell of 4A's Creations, LLC is an inventor in the toys, games, party and housewares industries. She is a two-time patented inventor, product licensing expert and coach, and has been featured in several books and publications such as *Forbes* and *Entrepreneur*.



Don't Limit Yourself

THESE 3 FALLACIES MAY PREVENT YOU FROM REALIZING YOUR PROTOTYPING—AND INVENTING—DREAMS **BY JEREMY LOSAW**

NOW THAT it's halfway through the year, the kids are out of school, and New Year's resolutions have long since faded into the bustle of daily life, summer is a great time to reflect on what we have accomplished and plan what to achieve for the second half.

We all have challenges and limitations, but some are perceived rather than hard reality. Most limitations can be turned into strengths with a little ingenuity.

These three common, limiting beliefs may be keeping you from prototyping and developing your invention or product. Here is how to overcome them.

1 Not enough tools or equipment. It is a fallacy that you cannot prototype products without a well-appointed shop in which to do it.

There are two ways to overcome this issue. The first is to simplify your product idea so that you can prototype within your means.

Unless you are building products that are truly high tech (like something that would be used on a spaceship), a version of most products can be made with simple tools and materials.

It is amazing how far you can get with a drill, some hot glue and materials such as PVC, wood and cardboard.

If you have a product with a crazy mechanical design that cannot be made with simple tools, it may be time to rethink your design. If you can simplify it enough to be able to prototype it at home, the design will certainly be easier to mold or manufacture later.

The second way to overcome lack of tools is to find some. Now that COVID is largely in the rearview mirror, maker spaces are open for business. These spaces have a plethora of interesting tools (often, some with CNC capabilities) and are staffed with volunteers with the knowledge to help you use them and who can also provide mentorship or a sounding board for your ideas.

2 Not enough money. Similar to not having enough tools, this is essentially a resource problem—and sometimes is a great excuse for not taking the next step in your product journey.

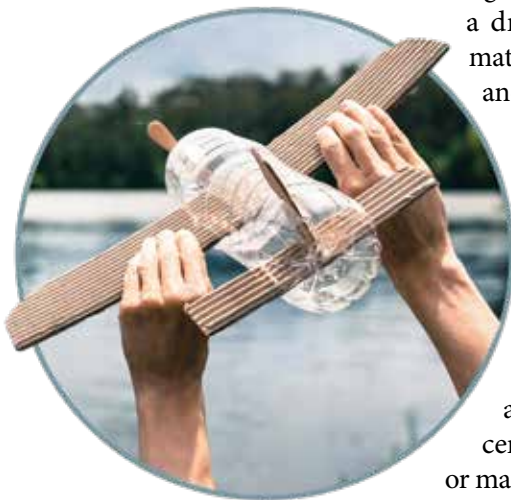
Yes, tools and materials do cost money, but there are ways to significantly reduce costs. Early-stage prototypes and concept models do not need to be beautiful to use for marketing purposes. They are tools to explore the concept and do not have to be fancy.

I have made prototypes from soup cans to experiment with user interaction and have had clients use LEGOs to experiment with the size of their products.

If you have the joy of living with or being able to spend time with kids, they are constantly prototyping with found objects. They have no money and only the resources of their immediate environment. They can work wonders with pieces of old toys, cardboard and glue, and will even add a dash of glitter for good measure.

Use the scrappiness of a child to get through resource issues. Look on Craigslist or Facebook marketplace for free or low-cost items where the material or mechanisms can be harvested. See what you have around you that you can take apart or repurpose.

This exploration will help find resources for your prototype, and also may unleash your creativity in a way that helps you overcome a challenge with your product or lead to a new idea.



3 Not enough skill. It does take some measure of skill to build prototypes. It requires knowledge of how to use different tools, the behavior of materials, and sometimes electronics or coding experience. Fortunately, we live in YouTube and now AI-enhanced worlds.

A plethora of YouTube videos can help you learn how to do nearly anything and learn prototyping tools—including coding and electronics. As ChatGPT and other generative AI tools start to become available, we can also leverage them to enhance our skill set.

For example, I just asked ChatGPT: “Can you write Arduino code to wire a DHT11 sensor on pin 5 that will read the temperature every 10 seconds and turn on a string of 10 addressable LEDs red if the temperature is above 100 degrees?” Within seconds, it kicked back viable Arduino code and told me which libraries I need to install for it to compile. (By the way, this knowledge is free to access and use, so the money excuse is not welcome here.)

Some inventors are great about coming up with ideas; they have no skill or desire to make prototypes. This is OK, too—but your path will be slightly different and you are going to need some help.

One path is to partner with someone more technical who can help with prototyping and the building of the product. You can also hire people to do the design and prototyping.

You can approach designers on platforms such as Fiverr or Upwork, but do your due diligence about their skills and have nondisclosure agreements in place before working with anyone there.

You can also contact a professional product development company such as Enventys Partners. There is a significant advantage to doing this, as you get a team of highly skilled designers and engineers on your team who have the experience to build the product in the best way possible.

In either case, lack of skills can always be augmented by building a team to fill in the gaps. ☞

Kids are constantly prototyping with found objects. They have no money and only the resources of their immediate environment.





Fast Flop?

THE UNIFIED PATENT COURT IS FINALLY A REALITY—AND SO IS A SLOW START FOR THE EUROPEAN SYSTEM **BY LOUIS CARBONNEAU**

WHEN I WROTE my five predictions for this year in February, the last one read:

Most people will opt out of the UPC. “I’ve commented several times on the ever-changing date for the official start of the long-awaited Unified Patent Court in Europe. For sure it is coming this year to a theater near you! But the devil you know is sometimes better than the one you don’t, and I suspect that many large patent owners who assert their assets in Europe will take their time and observe how things unfold before embracing this new tribunal.”

Well, it may be time to check this one off, even with the year only half over.

The UPC finally became a reality on June 1, after a gestation so long that would make a pregnant elephant mother jealous. Given all the hype that surrounded its creation and perceived benefits, one would have expected patent owners to flock toward it.

This is not exactly what happened, with reportedly over 400,000 European patents having been

opted out. For context, the European Patent Office granted just over 81,000 patents in 2022.

This is the equivalent of ALL issued patents in Europe in the past five years being removed from application to the UPC. According to the available data, a lot of the ones opting out are pharmaceutical companies that likely desire to keep their options open to sue and seek an injunction in as many jurisdictions as possible, without the risk of one bad decision affecting their rights elsewhere.

As a reminder, the UPC invalidates a patent, it does so for all 17 participating countries.

Also, while there is an obvious economic incentive for patent owners to use the UPC to save on litigation costs instead of replicating the same suit in many countries, oftentimes large operating companies prefer an opposite strategy (i.e., forcing the other side to spend as much money as possible confers leverage by itself).

Add to this that the UPC jurisprudence is essentially a white canvas, and many actors would likely prefer to see how it handles a few cases before jumping on the bandwagon.

Therefore, this slow start should not be seen as a direct rejection of the UPC system but rather as a cautious approach from the industry—and a reflection that tactical considerations may trump what seems like an apparent benefit to the outside world.

Yet, if these numbers do not improve in the next 6-9 months, one may wonder what the fuss was all about for so many decades. ☒

Louis Carbonneau is the founder and CEO of Tangible IP, a leading patent brokerage and strategic intellectual property firm. He has brokered the sale or license of 4,500-plus patents since 2011. He is also an attorney and adjunct professor who has been voted one of the world’s leading IP strategists.



MORE BLACKBERRY WEIRDNESS

We have tracked quite closely the whole BlackBerry patent sale saga in the past couple of years. As we know, the deal finally closed and the assets were sold to Malikie Innovations of Dublin.

Now, the previous purchaser that failed to consummate the deal, U.S.-based Catapult IP, has launched a lawsuit in the Eastern District of Virginia alleging that BlackBerry breached its agreement as it was ready to close the sale; is asking for the case to go to arbitration; and that the sale to Malikie be rescinded—while suing not BlackBerry but instead the buyer!

This is another bonus chapter in a long series of embarrassing twists regarding the sale of the portfolio by BlackBerry's management. One wonders, though, why Catapult is suing the buyer—with which it has no contractual relationship whatsoever—instead of

BlackBerry itself, which terminated the agreement once Catapult failed to raise the financing that the sale was conditional upon, and whose breach is alleged.

It will be interesting to see if Malikie brings BB to the fold as a party. Seems like the logical next step, as well as possibly countersuing Catapult for interfering with a business opportunity.

Meanwhile, this may bring a cloud of uncertainty about the rights that Malikie acquired. The third parties it will approach in the near future to entertain licensing discussions will likely take advantage of this latest chapter to buy time and ask Malikie to get a court or arbitrator to confirm its ownership before entertaining taking a license.

Once again, what a mess!



Classifieds

COPYWRITING AND EDITING SERVICES

Words sell your invention. Let's get the text for your product's packaging and website perfect!

Contact Edith G. Tolchin:

(845) 321-2362

opinionatededitor.com/testimonials

editor@opinionatededitor.com

PATENT BROKERAGE SERVICES

IPOfferings is the one-stop patent broker for today's independent inventor. In addition to patent brokerage, IPOfferings provides patent valuation services, intellectual property consulting, and patent enforcement assistance for the inventor confronting patent infringement.

For more information about IPOfferings, visit www.IPOfferings.com or contact us at patents@IPOfferings.com.

PATENT SERVICES

Affordable patent services for independent inventors and small businesses. Provisional applications from \$800. Utility applications from \$2,500. Free consultations and quotations.

Ted Masters & Associates, Inc.

5121 Spicewood Dr. • Charlotte, NC 28227

(704) 545-0037 (voice only) or

www.patentapplications.net

NEED A MENTOR?

Whether your concern is how to get started, what to do next, sources for services, or whom to trust, I will guide you. I have helped thousands of inventors with my written advice, including more than nineteen years as a columnist for *Inventors Digest* magazine. And now I will work directly with you by phone, e-mail, or regular mail. No big up-front fees. My signed confidentiality agreement is a standard part of our working relationship. For details, see my web page:

www.inventor-mentor.com

Best wishes, Jack Lander



Fast Track is the Best Track

DATA SUGGEST THAT USPTO'S TRACK ONE PRIORITIZATION EXAMINATION PROGRAM IS A GOOD MOVE FOR PATENT SEEKERS

BY GENE QUINN

All Eye on Washington stories originally appeared at IPWatchdog.com.

PRIORITIZED EXAMINATION, known sometimes as “Track One,” has been in place at the United States Patent and Trademark Office since September 2011. It provides applicants with greater control over how quickly a patent application will be examined and offers a fast track to an issued U.S. utility or plant patent that would be otherwise unattainable.

For those wishing to obtain a patent quickly, prioritized examination is the answer—perhaps the only answer.

Prioritized examination gives an application special status enjoyed throughout the life of the application in exchange for the payment of an additional fee due at the time of filing. This payment for special treatment as a prioritized application moves the application to the front of the examination line.

This is regardless of whether the application is an originally filed nonprovisional patent application, a continuation application, a continuation-in-part, a divisional application or even a request for continued examination (RCE).

The additional fee guarantees a final decision from an examiner within one year, typically within six months or less.

Cost-benefit analysis

A request for prioritized examination currently costs \$840 for a micro entity, \$1,680 for a small entity, and \$4,200 for a large entity. This fee is in addition to the other fees that are due at the time of filing (i.e., the basic filing fee, search fee and examination fee).

While not insignificant, this extra cost can be well worth the investment for those who find themselves in need of a patent quickly—whether

that be to capitalize on monetization opportunities, address ongoing infringement, or to create one or more assets demanded or at least expected by investors.

In the long run, given the efficiencies and streamlining of prosecution—and the very real possibility that an application will be allowed without a final rejection and definitely without the need of multiple requests for continued examination (only one is allowed)—there is a strong likelihood that the entire prosecution process will cost less even when factoring in the additional prioritization fee.

According to data from the Patents Dashboard on USPTO.gov, the average time from the Track One petition grant date to the First Office Action on the Merits (FOAM) is only 1.9 months during fiscal year 2023, with an average time from petition grant to final disposition only 5.4 months so far during fiscal year 2023.

The average time from petition grant date to a Notice of Allowance is lower, coming in at only 4.5 months for the current fiscal year. And the time from filing the petition to a decision on the granting of the Track One petition is just 2.1 months.

So, from filing to FOAM winds up being 4 months; from filing to disposition is 7.5 months; and from filing to a Notice of Allowance is 6.6 months—all for the current fiscal year so far.

Given the extra cost associated with a Track One application, the number of abandonments (489) and the number of Notices of Appeal (602) are dramatically dwarfed by the Number of Allowances (7,638)—all for the current fiscal year. And the number of final rejections (5,111 in fiscal year 2023) is also much lower than the number of allowances.

This suggests that nearly 60 percent of prioritized applications are allowed, many without

ever receiving a final rejection. And while there is no doubt some self-selection bias with applicants selecting their best, most important applications to accelerate, the numbers suggest a meaningful bias toward allowance.

Help in infringement cases

How many times have you reviewed a patent and an allegedly infringing device or service and thought to yourself: If only the claim said it this way?

You cannot help all clients. But with clients who are savvy enough to be doing what they should be doing, there will be one or more patent applications that remain on file—keeping a continuous chain all the way back to the parent application.

What if you could file a patent application with claims written to literally cover that allegedly infringing device?

Obtaining a picture claim on an appropriate disclosure shouldn't take much consideration, but if you have to stand in regular queue at the USPTO, that could mean at least several years in line before you receive a final determination—and even longer in certain technological fields. But waiting 6 to 9 months makes all the sense in the world if you can get that picture claim the competitor specifically infringes.

This is not suggesting anyone play fast and loose with the rules. But a well-drafted parent patent application, followed by similarly well drafted continuation-in-part applications, can support far more claims than most clients are willing to pay for in a patent.

Future prosecution help?

Another benefit of Track One is that the prosecution of the patent application is condensed over a period of a few months, with many hundreds of cases receiving a Notice of Allowance without ever receiving a final rejection. This results in a cleaner prosecution history, often preferred for litigation and licensing.

The speed of the prosecution also means the application remains far fresher in the mind of the patent examiner, which leads to less



Statistics indicate that nearly 60 percent of prioritized applications are allowed, many without ever receiving a final rejection.

problematic prosecution without necessitating multiple RCEs.

The streamlining of prioritized applications is no doubt aided in part by the seriousness with which applicants seeking a quick patent treat the application drafting and examination process, both in terms of cooperation with the USPTO and the completeness of the application and narrowness of claims sought. At the very least, the patent examiner will be more up to speed with every touch because the last touch was only a few weeks ago. This makes much attorney argumentation unnecessary.

If a client has a commercially relevant innovation, it makes all the sense in the world to pursue Track One. ☞

Gene Quinn is a patent attorney, founder of IPWatchdog.com and a principal lecturer in the top patent bar review course in the nation. Strategic patent consulting, patent application drafting and patent prosecution are his specialties. Quinn also works with independent inventors and start-up businesses in the technology field.





AI's New Privacy Danger

THOUGH A USEFUL TOOL AT TIMES, CHATGPT POSES MYRIAD ETHICS QUESTIONS FOR LAWYERS **BY GENE QUINN**

THE USE OF NEW, high-powered artificial intelligence tools such as ChatGPT presents real issues for businesses of all types and sizes.

Samsung employees shared confidential information with ChatGPT while using the chatbot at work. Subsequently, Samsung decided to restrict the use of generative AI tools on company-owned devices, and on any device with access to internal networks.

Concerned about the loss of confidential information, Apple has likewise restricted employees from using ChatGPT and other external AI tools.

The actual or potential loss of confidential information also must be of the utmost concern for all attorneys who have an ethical obligation to keep client information confidential.

Confidentiality concerns presented when using generative AI—a particular type of AI that can produce various types of content when prompted—must be thoroughly understood. For example, do you know whether the AI tool will use the information provided on a going-forward basis for the purpose of training the AI model?

Trade secrets at risk

According to ChatGPT, information submitted through the OpenAI API is not used to train the OpenAI models or to improve OpenAI's service offerings. However, data submitted through non-API consumer services such as ChatGPT can be used on a going-forward basis to improve the model.

So, once information is submitted through ChatGPT, the AI can use the information to inform itself and answer the queries of others—which almost certainly means that information is no longer a trade secret. And it would be a

gigantic failure of one of the most basic ethical requirements if such information were shared by an attorney or patent practitioner ethically required to maintain such information in confidence.

Rule 1.6(a) of the American Bar Association Model Rules of Professional Conduct prohibits a lawyer from revealing “information relating to the representation of a client unless the client gives informed consent ...” Similarly, the United States Patent and Trademark Office Rules of Professional Conduct prohibit patent practitioners from revealing “information relating to the representation of a client unless the client gives informed consent ...”

Both rules further require practitioners to “make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.” Of course, USPTO rules do have a caveat not present in the ABA Model Rules, which requires practitioners to “disclose to the Office information necessary to comply with applicable duty of disclosure provisions.”

The ‘what-ifs’

Whether or how one can comply with a rule when generative AI tools are used remains an open question.

For example, how do you know where the information came from if you rely on information from ChatGPT? Without knowing where the information provided by ChatGPT comes from, it is impossible to know what you may be incorporating into a patent disclosure.

Is the information being provided culled from competitors, and you are about to include that information into your patent application?

What will that mean for ownership down the road if any of that information is relied upon in a claim?

Would it be possible for a competitor to demonstrate that what you included was derived from information ChatGPT included in its corpus—from whatever source—and since you have used it in a claim there is an unidentified inventor lurking that could, through successful petition or lawsuit, later be found to be a co-inventor, thereby sharing ownership interests?

Of course, even given the confidentiality risk, loss of rights to trade secrets, and not knowing where the provided information came from—which all go along with the use of a generative AI tool like ChatGPT—it can still be a very tempting tool.

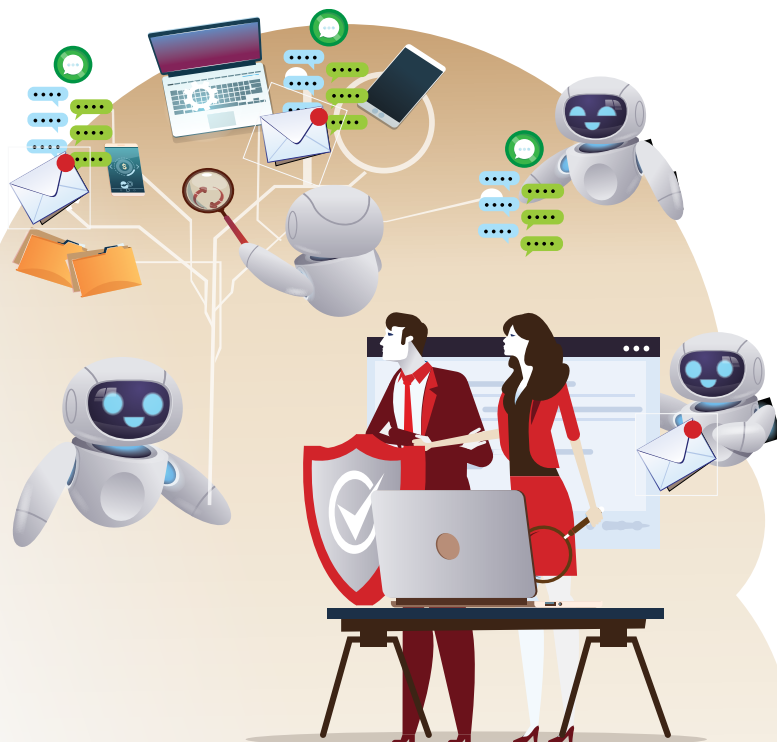
When searching for ways to describe an innovation accurately, completely and creatively, generative AI tools can be used to accelerate the acquisition of information and data, and even provide text relative to some aspects of an innovation. (Hopefully, this is limited to whatever discussion of the prior art you will provide in the background, or to provide context to the reader so as to demonstrate the benefits provided by the innovation.)

And in a world where both the United States Court of Appeals for the Federal Circuit and Supreme Court continually demand more disclosure in patent applications, and clients simultaneously demand patent professionals do more for less money, everyone is looking for ways to cut corners without crippling quality. So, from a risk-reward perspective, the use of generative AI tools may be too beneficial to pass up.

For those destined to use generative AI tools like ChatGPT, the ethical concerns presented are not insurmountable. But they do require practitioners to engage in serious forethought and consultation with clients prior to use.

Alarming example

I had a conversation with ChatGPT through which the topic of the Patent Trial and Appeal Board arose. ChatGPT referred to the judges as administrative law judges, which is inaccurate. The judges who make up the PTAB are administrative patent judges, not ALJs.



Confidentiality concerns presented when using generative AI—a particular type of AI that can produce various types of content when prompted—must be thoroughly understood.

Perhaps that is a small distinction on its face, but as the conversation proceeded, this fundamental misunderstanding led ChatGPT to additional erroneous conclusions—including that there is a requirement that PTAB judges have seven years of legal experience to be hired.

Indeed, many dozens of APJs without even five years of legal experience have been hired by the USPTO to be PTAB judges. And when asked where this erroneous information was coming from, ChatGPT refused to answer the question.

Still, the answers provided were given with an air of authority and credibility that it would be easy for someone not completely and thoroughly knowledgeable to succumb to the erroneous information being provided.

The blind use of ChatGPT by licensed professionals almost certainly will not be sufficient to rise to the level of expected competence by ethics officials. ☹

IoT Corner

Open-source electronics company **Arduino** announced broader device support for its IoT Cloud Service.

The service previously only allowed devices in its ecosystem, or boards programmed through the Arduino software to connect through its automated provisioning system. The new manual setup mode allows any device running Python, MicroPython and JavaScript (node.js) to connect. This gives the cloud platform broader use and is especially helpful for AI development, which typically uses Python.

The service is available now. In typical Arduino fashion, easy-to-use startup guides and sample code are available for developers to hit the ground running. —Jeremy Losaw

Wunderkinds

The 2023 **Inventionland Education Invention Contest** in Pittsburgh produced these first-place winners: Elementary—“The Silly Storyteller,” which offers user prompts to come up

with fun and imaginative stories, by a Fort Cherry School District team; Middle School—“TECovers,” giving basketball players flexible rubber shoe covers to save them the hassle of changing shoes oncourt, by Bethel Park students; and High School—“Retainer Maintainer,” a container to keep retainers clean and smelling fresh, by Altoona, Pennsylvania -area student Bella Graham (left).



What IS That?

The sand **Toilet Timer** runs for about 5 minutes, reminding you how long you have been ... occupied. Why this is important is anyone's guess, but Shark Tank's Mark Cuban agreed to invest in it: \$200,000 for 20 percent equity. This is the kind of risk you can take when you're flush.

Get Busy!

The USPTO's **Proud Innovation** event series, highlighting the accomplishments of LGBTQIA+ innovators, entrepreneurs, and small business owners, has been rescheduled for August 3. Details: uspto.gov/about-us/events/proud-innovation-2023-part-two-growth-and-success

WHAT DO YOU KNOW?

1 The largest payout in a patent infringement lawsuit was:

- A)** \$100 million **B)** \$580 million
- C)** \$1.1 billion **D)** \$2.5 billion

2 **True or false:** Inventors have filed more than 4,500 U.S. patents for animal traps, about a thousand of which are specifically related to mice.

3 Which was invented first—the T-shirt, or the dickey?

4 **True or false:** In 1998, a company run by actor Charlie Sheen trademarked the phrase “Drugs Are Loser Friendly.”

5 He didn't get a patent for it but is credited with inventing the batting glove in 1964:

- A)** Rocky Colavito **B)** Ken “Hawk” Harrelson
- C)** Pumpsie Green **D)** Maury Wills



1. D. To Idenix (vs. Gilead Sciences, 2016). 2. True, per the *New Yorker*. 3. T-shirt, late 1890s to early 1900s; dickey, 1850s. 4. True. 5. B. He hit two home runs in a Sept. 4, 1964, game after pulling a red golf glove from his pocket.

DON'T MISS A SINGLE ISSUE!

Whether you just came up with a great idea or are trying to get your invention to market, **Inventors Digest** is for you. Each month we cover the topics that take the mystery out of the invention process. From ideation to prototyping, and patent claims to product licensing, you'll find articles that pertain to your situation. Plus, **Inventors Digest** features inventor pros and novices, covering their stories of success and disappointment. Fill out the subscription form below to join the inventor community.



Inventors DIGEST

ORDER ONLINE NOW
WWW.INVENTORSDIGEST.COM

TO PLACE NEW ORDERS OR RENEW SUBSCRIPTIONS BY
MAIL FILL OUT CARD, OR CALL 1-800-838-8808 OR EMAIL
US AT INFO@INVENTORSDIGEST.COM.

NAME (please print)

ADDRESS

CITY/STATE/ZIP

E-MAIL

PHONE

referral code/referring subscriber (if applicable)

☐ 1 YEAR \$42.00 U.S. ☐ 2 YEARS \$78.00 U.S.

Make sure to enclose payment and send to
INVENTORS DIGEST 520 Elliot St., Suite 200
Charlotte, NC 28202



Start your patent
journey today!

Someone will cure diabetes.

Someone will build a smarter AI.

Someone will create a new energy solution.

Are you that someone?

— THE INVENTOR'S — PATENT ACADEMY

In this first-of-its-kind, free e-learning tool, you'll get to know the world of patenting and IP, hear from real inventors, prepare for the challenges you may face when patenting, and learn to protect your invention so you can bring it to life.

theinventorspatentacademy.com