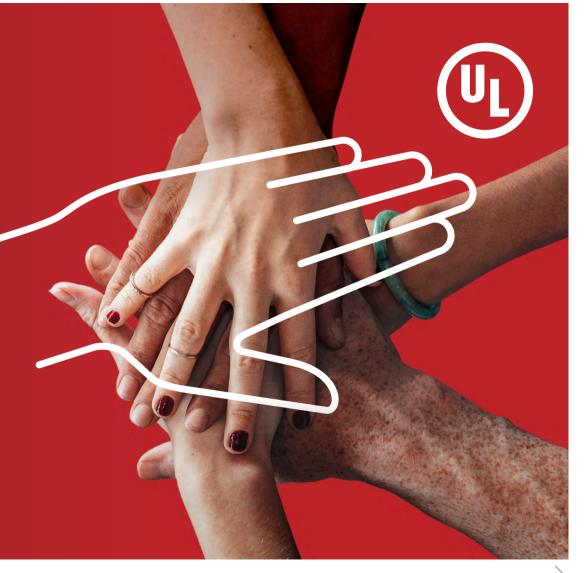
UNDERWRITERS LABORATORIES[™]

UL World Anti-Counterfeiting Virtual Research Symposium 2020

Summary





Introduction

Counterfeit products — that is, products made or sold under a brand name without authorization from the brand owner pose a large and growing problem for consumers, producers and societies. Estimates by the Organisation for Economic Co-Operation and Development (OECD) and the European Union Intellectual Property Office (EUIPO) indicate global counterfeit trade is about a half-trillion dollars (USD) and could grow to a trillion dollars in coming years. Such knockoffs pervade every industry. They threaten consumer health and safety, product innovation, and governments seeking to foster growth and safety.

A growing body of research addresses the harmful effects of counterfeits and what may be done to offset them.

As part of its World Anti-Counterfeiting Campaign, Underwriters Laboratories hosted a virtual symposium on research related to counterfeits. UL invited scholars to submit recent research regarding:

- 1. Consumer attitudes and behavior toward counterfeit purchases.
- 2. Links between counterfeiting and other criminal activities.

Both topics are of concern to UL in its anti-counterfeiting efforts. As Terrence Brady, president and CEO of Underwriters Laboratories Inc., told the webinar, "One part of our safety mission is educating people about the potential risks some of these products can pose. Unfortunately, these risks can increase when fake products find their way into the marketplace products whose makers or sellers don't care about the impact they may have on others."

The challenge of counterfeits has increased with the COVID-19 pandemic. "As a result of the global pandemic, stores and shops have had limited inventory, and many were closed for extended periods of time," Brady said, with consumers turning to online shopping. "The internet offers an easy way to sell counterfeit products to an unsuspecting buyer. As the demand for personal protective equipment, or PPE, like masks and gowns for healthcare professionals grew, counterfeit PPE also started hitting the market, endangering the health of users and those whom they serve."



 One part of our safety mission is educating people about the potential risks some of these products can pose.

Terrence Brady President and CEO of Underwriters Laboratories Inc.

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Virtual Research Symposium – keynote speakers



Dennis Collopy Senior Research Fellow





Renee Garrahan Associate, Economic Research





Yi Qian Associate Professor

SCHOOL OF BUSINESS



Anqi Shen Professor



Jeremy Wilson Professor



The nature of counterfeiting

In her keynote presentation, **Yi Qian, associate professor of marketing at the University of British Columbia,** noted counterfeits cut across many industries and countries. Consumers often understand their threat. Survey research, Qian noted, indicated that about four in five consumers believe fake products to be unsafe and that the quality of fake products is insufficient.

Counterfeiting, Qian said, can have two layers of deceptions: "Firstly, counterfeiters intend to fool consumers, and, secondly, buyers of counterfeit... intend to deceive their friends because they want to signal their status."

Qian proposed a prevention framework that builds on the marketing framework of product, price, place and promotion, and adds a fifth element of protection.



For product, brand owners could improve the quality of their wares. Qian cited the case of Chinese shoemakers who thwarted counterfeits of their brands by improving the quality of their materials, as well as introducing radio frequency identification to track genuine products. Brand owners can seek to improve "searchable quality" over "experiential quality," though such a strategy is more helpful in some industries, e.g., fashion, than others, e.g., pharmaceuticals.



For price, brands could, through the use of better materials as well as other price signaling, increase the price of their brands. Prices of authentic brands, Qian said, may increase following the introduction of counterfeits.



For place, brands may choose to integrate their distribution channels vertically. This would include using a brand's own stores to distribute its products. Counterfeiters, Qian said, do not have the incentive to undertake a similar strategy, which could make counterfeits easier to identify.

For promotion, brands, Qian said, can engage in more informative advertising as well as safety warnings and counter-marketing to counterfeits. While recognizing brands may want to avoid acknowledging the existence of counterfeits, Qian noted their evidence is widespread, such as in YouTube clips of counterfeit handbags that easily fall apart.



For protection, brands may collaborate to track counterfeits. "In particular, the authentic brands can leverage their own knowledge of their own products and monitor the market to track down" where counterfeits are made and sold, Qian said. Sharing this information with government authorities, she said, can help brands leverage the government's authority against counterfeiters.

According to Qian, the effects of counterfeits on brands can be heterogeneous and vary by country, sector, brand, product and time. Still, she noted recent research that suggested anti-counterfeiting efforts focus on low-end product lines, which can also present more safety hazards. Qian also noted that "dark triad personality traits," such as those related to narcissism, can induce consumers to buy counterfeit — and provide insights for brands seeking to curb the sale of counterfeits.

Consumer attitudes and behavior toward counterfeit purchases

> What does counterfeiting mean for consumers, who may be both victims and perpetrators of the problem? Two featured researchers of the webinar — Dennis Collopy, senior research fellow at the University of Hertfordshire, and Renee Garrahan, economic research associate at the International Trademark Association (INTA) — presented overviews of consumers generally and young consumers specifically and how consumers currently consider counterfeits.

Enforcement data landscape

Collopy's review of the enforcement data landscape analyzes international research on counterfeiting and piracy from 2014 to 2020. It assesses a new physical goods tracker that may help build a unique long-term dataset of consumer attitudes toward counterfeits.

Collopy's research has noted the need for frequent measurements of counterfeiting over a long period of time. A multitiered approach, including an omnibus survey, could depict counterfeiting more accurately. More frequent research could also provide more timely information for action.

One of the key advances in measuring the demand for counterfeit goods has been development of the **AudienceNet tracker survey**. This survey, sponsored by the U.K. Intellectual Property Office (UKIPO), can both track trends over time and help change consumer behavior. It divides consumers into segments, allowing for better targeting of anti-counterfeiting messages.

Among key findings of the survey were that:

- Most respondents have never purchased counterfeit goods. Among reasons cited for not doing so are moral concerns and perceived lower quality.
- Younger consumers are more likely than older ones to buy counterfeit (see Figure 1). Among younger consumers who buy counterfeit, about half said they do so at least once every three months.
- The main reason cited for purchasing counterfeit goods is lower prices (see Figure 2). Across most product categories, consumers indicated they were willing to pay half the price of an authentic product for the counterfeit version.
- Counterfeit purchases are most common in clothing, footwear and accessories, as well as sporting goods.
- Global e-commerce sites are a key source for counterfeit goods.

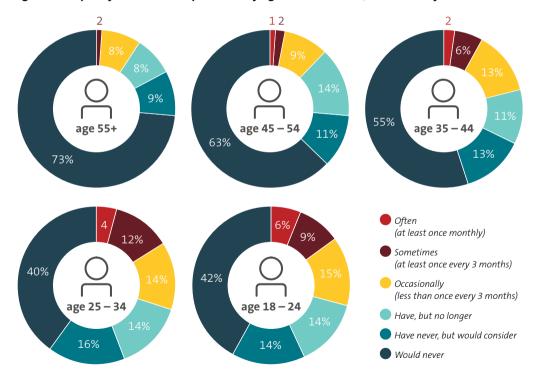


Figure 1: Frequency of counterfeit purchases by age in AudienceNet/UKIPO survey – all values in %

Enforcement data landscape

The AudienceNet survey also offered insights into the effectiveness of anti-counterfeiting messages. The most effective are messages on global impact (human), such as messages on the links between terrorism and counterfeiting. The second most effective are messages on personal impact. Messages on global impact (economic) were least effective, though messages on the impact of counterfeiting on the economy and jobs had some impact.

AudienceNet and other frequent tracking efforts can provide new and more timely insights, but several measurement challenges persist. Many measures rely on international trade statistics but, should international trade barriers increase, counterfeiting may focus more on domestic production.

Collopy's research also notes that the spread of COVID-19 has posed its own counterfeiting problems. Consumers preoccupied with their health and well-being may be prey to and at risk from counterfeiters. New purchasing patterns resulting from COVID-19 can lead to shifts in supply chains and vulnerabilities to counterfeiting. Collopy's earlier research explored how social media may facilitate the infringement of intellectual property rights. Most online purchases of counterfeit goods are complicit. Nearly half such purchases involved social media communications, particularly in closed groups. Social media can amplify counterfeiters' messages by increasing connectivity among consumers. Though data on social media and counterfeiting is improving, industry data can provide deeper and more timely analyses.



Figure 2: Reasons given for purchasing counterfeit by frequency of counterfeit purchase in AudienceNet/UKIPO survey – all values in %

Gen Z's shifting relationship with counterfeits

Though members of Gen Z, i.e., consumers age 18 to 23 years old, are more likely than older generations to purchase counterfeits, they may, Renee Garrahan noted, become less likely to do so over time.

To gauge attitudes of Gen Z consumers toward counterfeits, INTA surveyed nearly 5,000 of them in 10 nations about their attitudes toward and purchases of counterfeits. **The two top influences regarding counterfeit purchases among Gen Z consumers were morals and income.** Among Gen Z

consumers, 37% said they "don't think it's OK or it's totally not OK" to purchase fakes, but 47% said income could justify it. As one respondent told the survey, "You can and should buy fake products when you are a student."

Altogether, 79% of Gen Z respondents told INTA that they had bought fake products in the past year. Among the reasons for doing so were only being able to afford the fake version of goods, cited by 57%, and fake products being easier or more convenient to find than genuine products, cited by 50%. At the same time, Gen Z consumers cite quality and safety concerns for not purchasing counterfeits, with 81% saying that fake products are unsafe, and 77% believing that the quality of fake products is usually not good.

INTA asked young consumers whether they were aware of or had purchased counterfeit products sold in eight different categories. These were apparel, shoes and accessories, sporting goods, beauty and cosmetics, consumer electronics, food and beverage, children's toys and personal care products. Large majorities were aware of counterfeit products in all these categories, and many said they at least occasionally bought counterfeits in them (see Table 1).

Most young consumers do expect to buy fewer counterfeit products in the future, Garrahan said. Among reasons that young consumers cited for changing their attitudes toward counterfeit product would be learning that:

- Fake products are dangerous or bad for their health.
- Money spent on fake products goes toward organized crime.
- Fake products are bad for the environment.

Young consumers also differ by nation in their attitudes toward counterfeits, Garrahan said. Those in Indonesia and Russia were most likely to say fakes are easier to find than genuine products. Young consumers in Argentina and Japan were more likely to say they can only afford the fake version of some brands. Brand name is more important to young consumers in India, China and Indonesia and less important to those in Russia, Italy, Japan and the United States.

Table 1: Gen Z awareness and purchase of counterfeit products by category – all values in %



Have bought counterfeits at least "occasionally"

Buy counterfeits frequently or "all the time"

Panel Discussion: Consumer attitudes and behavior toward counterfeit purchases

Panelists agreed that all consumers can approach counterfeit products in different ways, depending on the potential harm of such products.

Dennis Collopy noted, "I truly believe people can hold these different opinions depending on the product. I think if it's to do with something where they perceive little harm, such as accessories, they decide you can buy a fake watch or a fake T-shirt. Whereas an airbag or something like that, that's likely to really endanger their health, and they're going to take that far more seriously."

In particular, Rich Kaeser, vice president for Global Brand Protection at Johnson &

Johnson, said consumers will be cautious of buying pharmaceutical and personal care products. "People don't want to go online and buy counterfeit drugs or counterfeit sunscreen that might not have any SPF," he said. Potential product safety risk is also a message that resonates with policymakers, **Michael Hanson, senior executive vice president of public affairs for the Retail Industry Leaders Association (RILA),** told the symposium, "As we go up to Capitol Hill to inform lawmakers, I think the one message that really resonates with them is the potential for counterfeit goods to harm their constituents. The second part that works too is that the money that is made from counterfeiting can also go ... to human trafficking or to drug cartels." Members of Congress, Hanson added, may then help spread anti-counterfeiting messages in their home districts.

Some brand owners for some products, however, may rely too much on their brand name in the fight against counterfeits. Judy Jeevarajan, research director for Electrochemical Safety at Underwriters Laboratories, said, "When it comes to batteries, there is not much of public safety message on counterfeiting. Because the top-tier manufacturers don't think it's worth spending the money. They think that the best brand speaks for itself, and so they don't spend any money to go and talk about a counterfeit versus their own original products." As a result, Jeevarajan said, consumers may opt for the cheapest battery without thinking of the safety consequences of a counterfeit one.

At the same time, Hanson said, "we are now seeing that brands are more willing to call out counterfeit goods to make sure that consumers know that they're out there and to educate them on what to look for."

Kasie Brill, vice president for brand protection and strategic initiatives at the U.S. Chamber of Commerce, said that companies are approaching consumers more directly about counterfeit products. Some companies, she said, are "actually informing consumers on the spot [on] what products look like, are they real Social media and... other apps have been a culprit for these fraudulent schemes and crimes, but they're also a great tool for education. ??

Kasie Brill Vice president for brand protection and strategic initiatives at the U.S. Chamber of Commerce or fake, and talking with consumers, even patients, in chatrooms and really getting to the consumer where they are rather than making it kind of a broad marketing strategy."

Similarly, Jeevarajan noted UL's efforts to approach schools on the problem of counterfeit batteries. When instructing students about battery safety issues, UL Xplorlabs™, she said, also noted specific products where battery safety is crucial, such as self-balancing scooters.

Online platforms can also inform consumers about problems with counterfeits, particularly as more shoppers turn to them. "I think there's a role for these platforms to be responsible as stakeholders because they're embedded in e-commerce and online markets," Collopy said. "We need to get people within those platforms who understand counterfeiting and the issues relating to consumer safety." The decision by Amazon to deliver pharmaceuticals will bring more attention to the issue, Kaeser said. Joint plans by the National Intellectual Property Rights Coordination Center (IPR Center) and the Department of Homeland Security may also yield results, he added.

COVID-19 issues, Brill said, have worked as a "catalyst and opportunity for our U.S. government partners to come together and to effect some real change. We have seen plots thwarted on counterfeit PPE and counterfeit respirators ... because of the work of [Homeland Security Investigations] and the Department of Justice and the National IPR Center and others."

Brill also noted opportunities to work with social media platforms to advance anticounterfeiting messages. "Social media and ... other apps have been a culprit for these fraudulent schemes and crimes, but they're also a great tool for education," she said. "We have run a number of public service announcements and other ads on social media platforms, and they have been just received with great interest ... So, I think there are a variety of opportunities ahead both to partner and to educate." Still, the best defense that consumers may have against counterfeit products may be their own intuition. The No.1 shopping tip that the U.S. Chamber of Commerce gave consumers on avoiding counterfeits, Brill said, "is to trust your own instincts. If it's too good to be true, it probably is."

Links between counterfeiting and other crimes

Counterfeiting does not occur alone. Rather, it can support, and be supported by, other crimes. What are the specific links between counterfeiting and other crimes? What can be done to address them? Two featured researchers of the webinar — Jeremy Wilson, professor of criminal justice at Michigan State University, and Anqi Shen, professor of law at Northumbria University — discussed the tactics that may be used against counterfeiters and those counterfeiters use to launch their enterprises.

A multifaceted problem requiring a multifaceted approach

Counterfeiting is a multifaceted problem requiring a multifaceted approach. Typical anti-counterfeiting efforts, however, are scattered or reactive. To better address the problem, Wilson told the webinar that rights owners need a total business solution involving all functions of a firm.

Wilson's research, based on a survey of anti-counterfeiting practitioners and other experts, found hundreds of unique tactics that firms could use in the fight against counterfeiting. Legal function tactics were among the most common. These can include seeking injunctions against counterfeiters or organizing evidence for law enforcement investigators. Legal function actions can signal a willingness to fight infringement and thereby deter counterfeiters. More generally, prevention, proactivity and strategy should be emphasized in anticounterfeiting efforts. Enforcement metrics such as those on customs locations and personnel can also inform efforts such as those to train law enforcement personnel.

Wilson's research also classifies the types of tactics to apply across organizations. The categorization illustrates the variety of approaches that may be taken in anti-counterfeiting efforts. Enforcement tactics can involve legal authorities, litigation and other means. Internet monitoring and website seizure are becoming increasingly important as counterfeiting shifts to virtual markets. Investigators can focus on incidents and followup as well as gathering intelligence. Education and awareness tactics can help law enforcement identify counterfeit goods. They can also inform consumers about the connection between counterfeiting and criminal activity.

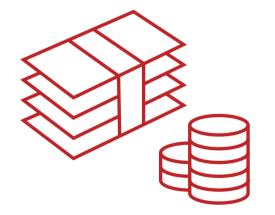
Firms may initiate enforcement activities and increase consumer awareness by first launching anti-counterfeiting initiatives. In ongoing research, Wilson and colleagues note that practitioners mention great depth and narrow breadth of enforcement tactics in brand protection and legal functions. They also note great depth and narrow breadth of education and awareness tactics for the brand protection function and public policy tactics in the government affairs function. Among the first anti-counterfeiting measures is identifying the criminal consequences, educating consumers about them and enforcing against them.

In prior research, Wilson and colleagues have discussed how to extend guardianship of products to thwart counterfeiting. Such "design against crime" techniques may include radio frequency identification technology, use of holographic labels, and serialization of products. These and similar tactics can help increase the line of sight for products and identify counterfeit infiltration. Retailers and consumers can also help identify counterfeits. For pharmaceutical products, for example, retailers can ensure products match their specified appearance. Patients and doctors can report adverse reactions. Consumers can also educate themselves on a product's guality and performance.



The financial mechanisms of counterfeiting

A considerable amount of academic work has examined the flow of counterfeit goods, but little has examined the financial mechanisms for such goods. Shen presented work she and her colleagues have undertaken, exploring the financial management of the counterfeit goods trade.



She addressed how counterfeiters secure and sustain financial backing, settle payments, and spend or invest profits. To conduct this work, she and her colleagues interviewed law enforcement and other government officials, academics and researchers, criminal entrepreneurs, legitimate entrepreneurs, and other knowledgeable individuals.

They found counterfeiters rely on one of several sources of funding. For small schemes, counterfeiters can rely on their own funds from legitimate work and savings. They may also use funds from legal businesses, such as transportation or logistics companies, or legitimate companies trading in the same commodity that is counterfeited. Criminal entrepreneurs may branch off into counterfeiting after engaging in other activities. Counterfeiters may seek loans from those with whom they have had business.

For small schemes, cash transactions are most common. Larger schemes, according to their research, particularly import or wholesale schemes, rely more on credit. Such credit may be available from a party with whom one has a preexisting relationship or through a broker who can verify a borrower's trustworthiness. Internet transactions, their research found, may be settled by PayPal or credit card, though bank transactions are becoming more common.

Counterfeiters may use their profits to finance consumption or to expand their business. One counterfeiter whom Shen

and colleagues interviewed, for example, used his profits to buy a real version of the product he was counterfeiting. Many counterfeiters engage in counterfeiting to supplement low wages. Counterfeiters may also choose to invest in legitimate or counterfeit businesses. Small-scale counterfeiters may reinvest only small amounts of money so as not to draw attention to their business. For counterfeiters with small profits, money laundering is unnecessary.

Shen and her colleagues found much of counterfeiting "is a fragmented business, which does not necessarily require a great degree of sophistication and management of finance and resources." Counterfeiting, they found, is an attractive business because counterfeiters can get involved with only a small investment. That is, there is a low entry barrier to counterfeiting, and counterfeiters can expand as they wish after entry. Their research suggests that counterfeiters may use legal businesses to facilitate their counterfeiting. Shen and her colleagues suggest a better understanding of counterfeiting will require a better understanding of the connection of money to markets, connections between microfinance mechanisms and wealth management, and identifying patterns of financial management.

Panel Discussion: Links between counterfeiting and other crimes

While some counterfeiting schemes may be small, they can quickly encompass multiple crimes and easily cross international borders, **Bruce Foucart of Business Action to Stop Counterfeiting and Piracy** told the symposium. Foucart, a former federal law enforcement officer and director of the National IPR Center, typically found all-cash enterprises in enforcing against counterfeiters.

"When you start peeling back the onion ... you find a very sophisticated transnational organization that is involved with [other] sophisticated cross-border related crimes," Foucart added. This included "the smuggling of not only counterfeit but other contraband," such as money laundering, narcotics trafficking and wildlife trafficking. Counterfeiting has also figured in the financing of several terrorist groups in recent decades. Among others, Foucart said these include:

- The Irish Republican Army selling counterfeir veterinary products in the mid-1990s.
- Hezbollah selling counterfeit tobacco products in the mid-1990s.
- The Revolutionary Armed Forces of Colombia "making more money selling DVDs and CD-ROMs than they with their kidnappings [and] ransoms" in the mid-2000s.
- An Al-Qaeda faction that "worked their way into Paris [and] got a wire transfer from Syria to buy ... counterfeit goods from China [that] they sold in physical marketplaces as well as online. And that's where they garnered their money to go out and buy their weapons" used in the Charlie Hebdo attacks of 2015.

The incentive structure for counterfeiting is too great for criminal enterprises to resist, said Kevin Olive, a Brand Protection manager for UL. Olive, a former law enforcement official who served on the counterfeit and piracy enforcement team for the Los Angeles County (California) Sheriff's Department, noted that "the money is so great, and the penalty is so little."

The growth of online markets can make counterfeiting harder to detect, said Melissa Maranville, founder and CEO of DeVille and Associates, a law enforcement training consultancy. Much of counterfeiting, she said, "has led back to the dark web." We need to report more about online crime trends. We need to educate police officers as well as the public ... about online crime trends. ??

Melissa Maranville Founder and CEO of DeVille and Associates Another complication in counterfeiting, particularly in supply chains, is the struggles that product users, particularly of large, complex, legacy systems, may have in sustaining them. For example, Peter Sandborn, professor of mechanical engineering at the University of Maryland, noted that users of airplanes and trains "cannot go to the original manufacturer to get these. The original manufactured parts are made for these and stay around 18 to 24 months. But how do you support an airplane for 40 years when it's made from these parts?" So, users "have to go to a secondary market, and that creates counterfeit risk. It's a supply and demand problem. There's a demand for old parts, and you can't get them from the original manufacturer."

This supply problem, and potential opportunity for counterfeiters, is also not one that can be easily solved. "The U.S. military might need 1,000 pieces of one part, which is 30 minutes of production for a semiconductor manufacturer," said Diganta Das, a research scientist at the University of Maryland. But "it's not worth [the manufacturer's] time to run a line for 30 minutes to make those thousand parts ... They have moved on from technology to the position where they can sell things in the millions, make things at high quality when selling in the millions, and sell to customers who have a steady demand rather than a few hundred here. a few thousand there."

Sandborn said some firms buying parts for legacy systems have found "about 30% of what they got was suspect." While users may be able to detect fraudulent parts, Das added, detection tests can be expensive, and "if you are relying on detection, you have already given up trying to stop" fraudulent parts. To thwart counterfeiting as early as possible, panelists recommended training in traditional and new venues. Olive said the need for "frontline officer training" and "getting it in the academies." He added, "This is a global problem, and global customs training is so very important to actually stop counterfeit from coming into any country."

Maranville said, "we need to report more about online crime trends. We need to educate police officers as well as the public ... about online crime trends" in the growth of counterfeiting. Maranville also believes new platforms can provide new means for anticounterfeit education. "One area that I am seeing that is growing rapidly, particularly with our younger consumers, is gaming platforms," she said. "And I think one of the areas that we could possibly take advantage of when it comes to educating consumers is maybe creating consumer awareness campaigns that also send those messages across these gaming platforms." The ongoing fight, Shen concluded, will require cooperation among all. "Different agencies should let each other know what they can offer," Shen said, including the particular strategies and services they can offer. "Brand owners should work closely with law enforcement" and provide means "to enhance their capacity to deal with this together."



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