The Eyes That Never Sleep

This angle at which this image is taken, with the surveillance camera staring straight down upon the viewer, highlights the way in which surveillance is omnipresent in every aspect of our lives living in New York City, with over 100,000 cameras present in every corner of our city. From back alleys in Brooklyn to Times Square in Manhattan, it is impossible to not be watched.

Imagine you are walking down 12th Avenue, towards Columbia's Innovation Hub in Harlem. It's a hot summer day with temperatures soaring above 90°F so you're glad to catch the brief reprieve of shade under the Henry Hudson Parkway, though you probably wished at that point that you'd taken the train. 63,000 vehicles pass over the bridge above you that August day, but what really matters is what's going on below. You don't look up, but who can blame you? It's 12:58pm, and you need to get into the building by 1:00, so all you focus on is what is ahead. This is the key issue that New Yorkers face regarding surveillance technology. They know it exists, yet are too busy to do anything about it, especially as, surprise, the NYPD doesn't always like putting them in plain view, just like two depicted here. One win could be taken from this experience; despite being a couple minutes late, at least you did not pass by numerous cameras in NYC's transit system.

Go back and look now (perhaps on your way home). The presence of the 12th Avenue street sign provides some detail to the location where this image was taken, but provides enough anonymity to indicate that this photo could have been taken anywhere in the city. The imagery of the cold stillness of the cameras contrasts well with the gray, metallic nature of the bridge above. The overwhelming size of the bridge compared to that of the viewer connotes the suffocating nature of the NYC camera, a form you cannot hide from. Further, barely any blue sky is visible, demonstrating how while there is still hope to stop the growth of surveillance technology, the time window to do so is closing fast. Artistically, the cameras' physical form looks similar to a pair of eyes always watching, but unlike human eyes, never blinking. The speaker between the two cameras could be viewed as akin to a mouth, adding to the anthropomorphic nature of these cameras. However, the angular form of the sign-post, wired together, communicating through electrical signals, is anything but human. In contrast, the 12th Avenue sign's green hue adds a rare spark of color. A sliver of yellow warning juts away into the road as well. These both point away from the viewer indicating the direction we need to take, a turn, not up, but away from the watchers. New York City has the capability to be a city of the future, with technology used to empower citizens, not watch them. Will you look down in ignorance or away to a city not capturing your every move.

Tristan Burchett

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Disrupted Tranquility

You walk beside the Hudson River, listening to your favorite music album. It is sunny today, but a tree provides shade. The wind gently rustles the leaves, and some drop to the ground, adding to the green blanket already present. Feather reed grass waves a greeting, and you feel calm, relaxed — until you notice the pile of trash in front of you: cups, bottles, McDonald bags, aluminum containers, and cardboard boxes.The trash in front of you is carelessly discarded in the carpet of leaves with the majority of the trash being products used to store food. Behind the pile of litter is a garbage bin that reads, “Less trash. More trees” — an irony with the amount of junk in front of the bin. You have to sidestep to avoid the trash, an inconvenience at best. The lack of care of the litterers to clean after themselves ruins the otherwise tranquil environment provided by the public space.

Tiffany Qu

Eye Contact

Cameras are everywhere. As you walk through the city you will be able to spot many. In this image we see a building entrance with several cameras. We can observe a relentless amount, especially because there is even more if we were to walk from the other side of the pillars. As you move past the building you pass many cameras, meaning that every step you take is being watched. This leaves little to no room of anonymity. As we walk we question: Who is watching behind these cameras? Why are there so many of them on a singular building? And is the film being recorded, if so where does the recording go? These questions allow citizens to question if they believe cameras make them safer. Ultimately, questioning if they prefer privacy or safety. We wonder if cameras actually create a safer environment, or if they are more of a security illusion. This dilemma forces people to think if they are fine with constant monitoring and a loss of privacy.

The dark lighting in the photo sets an ominous vibe. It makes us question if we are being watched. When people walk into darkness they may feel uneasy and unsecure. The same feeling is symbolized in this photo as it shows hidden secrecy and unknown. The darkness also symbolizes the lack of transparency between cameras and the users. For instance, have you ever gotten contacted about cameras before they were put up in your neighborhood? The cameras are a little higher than eye level, forcing pedestrians to make eye contact with them. This sets an uncomfortable and awkward tone. Not because the person is doing wrong, but because their privacy may be getting violated and the pedestrian does not know what is happening behind the scenes. Does this also mean the pedestrian is creating eye contact with whoever is watching them?

Mia Szczesniak

Eyes Above, Eyes Within

In one of the most expensive cities, where the cost of living grows more unaffordable by the year, everything comes with a price. But on the corners of many streets stands a LinkNYC kiosk: a modern intervention that feels almost out of place. It offers open access, free, with no “obstacles”. In the middle of the city’s chaos, it’s a doorway into the online world.

Then you look up. Two black domed security cameras peek from the side of the building, their eyes fixed on the exact spot where you’d stand to use the “free” wifi. They never move, never make a sound, yet their presence speaks volumes. They capture people having coffee chats, overhear pieces of passerby conversations, and quietly take note of exact locations. The Wi-Fi offers you freedom; the cameras remind you it comes with a price.

It’s tempting to think the cameras are only about the street, watching the physical world. But the scene carries a symbolic meaning. The way they seem to keep their gaze over the Wi-Fi sign mirrors how surveillance follows us online. The lens that sees you at the kiosk is no different from the algorithms and trackers that watch you browse. Both capture your patterns, preferences, and how you spend your day. Privacy isn’t stolen; it’s surrendered. The kiosk is the bridge between reality and virtual reality, the cameras the gatekeepers, and beyond them lies an unseen network of watchers: corporations, advertisers, governments, all hidden behind layers of code and policy. In both worlds, connection and surveillance sit together, impossible to fully separate, hidden, constant, and quietly following our every move.

Jayden Wong

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Trace Track/Trail of Tracking

The city is concerned about the actual efficacy of these surveillance measures; they feel that it is more for the government's gain rather than the city's safety. People wonder what happens with the footage after a potential crime is caught; if the many cameras placed without the city's consultation, or numerous data that is recorded without their consent is done with reason. The numerous places that privacy can be breached through these technologies are topics which need more attention.

OMNY-PRESENT:

From the moment you tap your OMNY card to enter your choice of public transportation, you become a number that is tracked around the city. After tapping your card, your device is identified to your true identity and your location. This can raise great concern if someone wants to know a specific person's destination. Part of our research at CS3 was conducting interviews within the Harlem community, and although citizens did not raise concern about technology like this, they do understand that they're often not kept anonymous within the city. OMNY cards explicitly track location and according to New York Senator Kristen Gonzalez the system "poses an unacceptable privacy risk to OMNY users, including students, and their families."

BIRDSEYE VIEW or YOU'RE NOT A WORM (i.e bird food):

Surveillance cameras are not always at eye level. You have to crane your neck to see the thousands of cameras at birdseye view lining the sides of buildings, tracking not just speeders but the tens of thousands of pedestrians streaming down the sidewalk every day. Many of NYC's surveillance cameras are equipped with advanced facial recognition technology, including those from the legally shaky company Clearview AI, which has faced many lawsuits in their 8 years of existence. Further, citizens often have little to no input in the placement of cameras, further reducing their autonomy in the city. Glancing off the side of the 125th St Station along the 1 line, over 100 feet in the air, you can nearly make out the details of the faces of passersby. If you nearly can, a modern surveillance camera certainly can. Numerous cameras now line the stations themselves as well. Your face is quickly picked up and stored in an FRT database as you turn to enter the downtown 1 train. 1 train cars are older models and thus haven't been fitted with new glasses quite yet, but you acutely notice the newest cameras on the A line's R211 cars as you head home later that day.

THE NATURE OF THE CITY:

As I walk out of the train station into the city's ambiance, I am met with a barren concrete landscape contrasted by small patches of greenery. Deeper into the neighborhoods, away from the main streets, I feel a brief sense of peace. Flowers catch my eye first, then the green plants that spill over the dark black planter. Above it all, tucked into the fence, two cameras glare down at me. They watch quietly, recording everyone who passes. No warning. No consent. The city calls it safety, but it feels like tracking. Among the greenery that comforts and makes the city lively, the pair of eyes reminds me that nothing truly goes unobserved. In this concrete jungle, nature is decoration. Surveillance is everywhere. And while you are looking at the flowers, the city is "looking" at you.

"CHASE"D DOWN:

As I get off the bus I see many cameras near the bus stop. I wonder why there are so many and then I notice a sign that says "Bus corridor photo enforced." This helps me understand that cameras are not just for security, but that they are actively monitoring streets and making sure laws are enforced. It is a reminder that cameras are always monitoring whether it is for safety or control. Furthermore, I walk to the bank. I swipe my card to get in and I hope that the bank has secure privacy laws so my bank account and personal information is protected. I think about how every time I go to a bank to make a deposit or withdraw I am tracked because the bank knows exactly where I am. This makes me question how much my life is tracked. Also, I wonder about how much happens behind the scenes every time I interact with technology.

Tristan Burchett, Leilanie Lewis, Mia Szczesniak, Jayden Wong

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The Fire Escapes on the Windows

Casually taking photos of an individual's window is strange. As people live in their homes, they expect to feel safe and secure. However, my camera is not the only one facing these windows. There are countless other cameras mounted around the city to monitor the city. This photo is to symbolize the fact that heavy surveillance almost takes humanity out of life. As we are walking around, there is always some way we are being tracked.

Through CS3, my team interviewed numerous citizens in Harlem which all expressed discomfort about how much the internet knows about them, however they feel that it's something they'd have to get used to, as technology grows. Citizens do not feel represented by the same government that bombards the streets with cameras and surveillance technology, as they can acquire information about them and take advantage of it in a malicious way.

This image is to convey the lack of actionability in the amount of privacy a resident feels they have. The eerie feeling that any individual can see what you're doing in an area where you feel comfortable may equate to how people feel about surveillance being scattered within our city without any consultation. On top of the surplus of cameras, your online activity is tracked through the cookies you accept as well as the advertisements you may stumble upon. Your data is constantly being fed to companies to better their revenue; it gets you thinking if this is really what you want, which is why the community's apathy in monitoring their privacy is growing.

The unease of unknown people peering into your every move is a feeling that citizens should not feel a lack of control over. At CS3, my team and I attempted to create something that would alleviate this intense feeling that people do not feel empowered enough to actively pay attention to.

Leilanie Lewis

A gratitude

One person’s trash is another person’s treasure. A photo of an upstanding community member. Low income neighborhoods tend to suffer from more environmental burdens. Whether it’s more waste facilities and less recreational areas; which resorts to increased health issues, poverty and substance abuse. A man, seemingly overlooked by those that put him in this position. A resilient fighter is what shines in this photo. Do not let your circumstances change you. Do not let others influence how you view yourself, or the measures that allow you to reach your goal. Issues are personal, they do not define you. I measure his quality with the strength from within. Even if it is not his responsibility, he is undoing much more harm than he realizes. And so, I say thank you.

Sofia Acevedo

Camouflage

Across this street, there is a park where many people go for a jog. To get to that park, commuters must pass under the highway pictured in this photo. However, on the sidewalk below the bridge, there's a lone, medium-sized, black trashbag. It isn't noticeable at first glance because of the shadow casted over it which gives the trashbag an ominous appearance. Some may not even realize that there's a huge mountain of trash in the distant background that attracts harmful creatures like rodents and mice. The Trash has become a part of the environment: unnoticeable, neglected and somewhat hidden until given a second look. Compared to the wonderful, relatively clean and bright feeling of the park across the street, the environment underneath the bridge is bland, and uninteresting. However in the photo, the bright blue sky that peers down onto this tragic scene of a filthy cityscape, relates to New York's Cityscape as a whole. New York is known for its skyline and cityscape, where the scenery is so beautiful and the sky ever so visible. The sky is highlighting the potential for this space to become more than what it is and the removal of the trash would greatly change the atmosphere of the environment. People want to walk through clean environments, and having this area cleaned up may offer more potential for future use of said space.

Allen M. Rivera

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Abandonment

On the pavement underneath a bridge, an unused juice carton sits, knocked over, its spigot thrown a few inches away. In certain ways, it seems alive, as if it took a step and was unable to recover and stand up again. This piece of garbage is solitary in its solitude, more noticeable than the pile of trash bags crouched in the corner. While in this park just across the street, children are running and having their time, everywhere else here is forgotten. Even in a location like this, the green of the carton catches attention, not wanting at all to become one with its dull gray environment. This makes me consider what other things we pass by every day that, like this carton is discarded, and yet doing their best not to be unnoticed.

David Gelpi

The Dreaded, Windy Journey

Picture walking down 125th street Harlem. It's been a long walk, and you're ready to rest on a bench. You notice the elderly, schoolkids, and exhausted workers glancing at a public bench in front of you but not sitting down. You, unlike all the rest, walk over and plop down on the bench, your feet aching. However, you soon notice the high volume of garbage sitting right beside your foot and ruining your otherwise pleasant experience. The odor of rotten food and the flies swarming around the seat drowns you, and you hurry to vacate the once-promising bench. As you dash from the area, you spot a trash bin with a glass bottle stuck in the opening.

A trash bin's primary function is to promote cleanliness in a community. However, technology isn't entirely foolproof. Instead of finding peace in our neighborhoods, we find alcohol bottles and irritating sights next to benches, where people choose to leave their trash because of a lack of empty wastebins nearby or insufficient care for the cleanness of the streets. We also see people abusing trash bins. Today, throwaway culture not only exploits our finite resources but also normalizes an attitude that does not respect both objects and people. It's a direct lack of mutual respect for the community's streetscape.

Time for another stroll, but this time through a street in Central Harlem. As you walk up the street, you notice that there is no trash on the ground nor any rodents breaking open trash bags and causing spillage onto the sidewalk. The lack of trash outside allows you to smoothly pass through the street without smelling any odor. Though you may not notice, the cleanliness of the streets stems from the care from the community members and resources from the city to properly store their trash and keep the streets free of litter. Across the street, you see large (empire) bins for residents to store their garbage bags until the sanitation workers pick them up. These bins prevent odor from rising from the trash and pests from coming to the trash.

All human luxuries result from an effort to benefit us but they come at a cost. Whether the consequence is an empty alcohol bottle, cheap, poor quality trash cans or the fulfilling calories a corporation offers. The cost is the 3 years and 364 days countdown on the Union Square Climate Clock until we cannot reverse climate change, as of July 2025. A clock ticking a chilling tone, like these photos. Installing better quality trash cans, policies, awareness and environmental distribution will instill faith in the ability of modern technology and achieve a stronger community. When we learn how to use the technology we make for good, all people can enjoy walking, running, biking, and scooting through our city.

Sofia Acevedo, Allen M. Rivera, Tiffany Qu, David Gelpi

Technology vs. Nature

Passing by, the hues of green from the trees instantly lure us in. We eagerly search for more to satiate our hunger for nature, especially when sights like these are rare in the city. Instead of the expected continuation of a naturally occurring gradient, the city throws us into urban grays — trees, lightposts, trucks, e-bikes, cars, benches, crosswalks — the monotonous nature eliminators forming concrete jungles. This disposition forces us to have dependence on technology while offering the option to embrace nature's calls. It is near impossible to choose one over the other when both are simultaneously useful.

These conflicting sides play a never-ending tug of war game in our minds: choosing between either technology's comforts or nature's risks and beauty. But between these contradictory extremes, we can see a layer in between: traffic signals, wayfinding signage, pedestrian lights, and sound buttons. These assistive technologies blur the lines between nature and the urban. Knowing the potential of assistive technology, perhaps we can repurpose technologies to push us towards nature to make this journey easier, instead of blindly creating technology for the sake of technology, estranging humans from the equation. However, even the slightest focus on this issue will allow us to pick the option of nature, allowing us to be immersed in our actual lives instead of a virtual one. To accomplish this, safety in urban environments is our priority. If more technologies form a gradient, similar to nature's, it would ensure urban streets are for humans as much as they are for vehicles.

Ada Chen

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The Game of Street Safety

Walking in NYC shouldn’t feel like a game of Crossy Road. In this image, two men cross the hectic intersection of 125th and Amsterdam, surrounded by trucks on all sides as if they were inside a video game. As one truck covers the crosswalk and another blocks part of the road, the two men are forced to squeeze into a narrow path with traffic coming at them. This danger is amplified by the fact that other trucks obstruct their view of the walking signal, leaving them to guess how much time they have left to cross the street. While these two men still crossed safely, what if they weren’t able to cross in enough time?

Data from the NYC DOT show that seniors account for the majority of pedestrian casualties in traffic accidents. One reason behind this is the mobility issues many seniors face. Navigating the situation in this image would be hazardous for anyone, but the danger is particularly imminent for those unable to make a split-second reaction. The men in this image, daring to cross, show how NYC streets have become inaccessible to many people. NYC is inching closer to becoming a true concrete jungle. Street crossing should not be an issue of survival of the fittest; rather, all should be able to traverse the greatest city on earth with the confidence of not getting hit by a truck.

Samuel Jimenez Lozano

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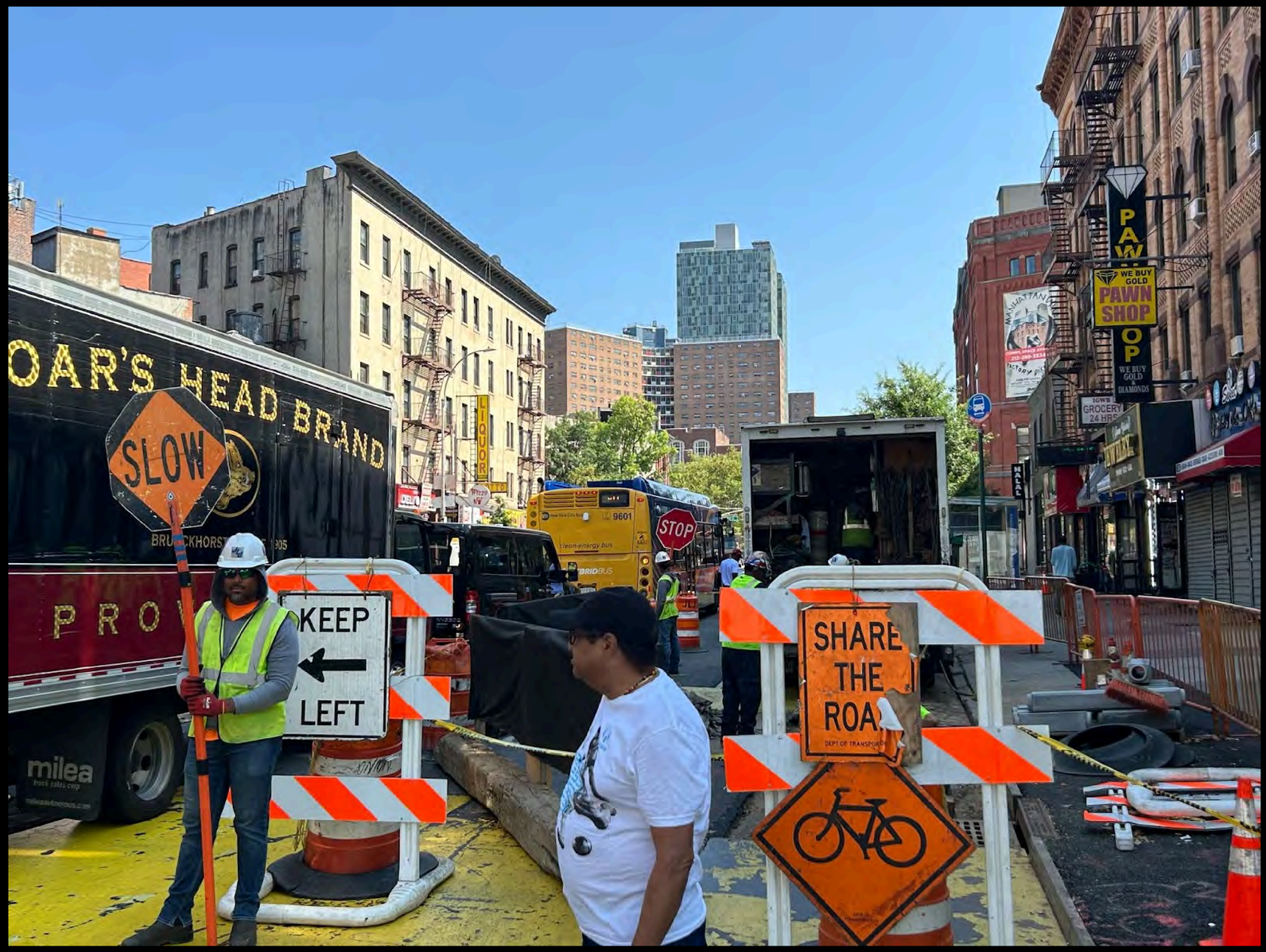
Un-Share the Road

As the fibers on the DOT “Share The Road” sign slowly wither away, the scene on the northern side of 125th Street and Amsterdam Avenue becomes increasingly chaotic. This road, designed to accommodate both cyclists and drivers alike, is occupied entirely by delivery trucks and MTA buses. A water main repair project drags on, creating a disjointed streetscape, where pedestrians often stand proudly in the way of turning vehicles. Frustrated cyclists have no choice but to weave through construction workers, blind spots, and even pedestrians. Vehicles, eager to beat the notoriously long and complicated light sequence, speed through the finish line – the crosswalk – ignoring calls to yield and stop. A bus stop is concealed by construction trucks as the remains of a once-thriving bike corridor are gutted and dug up. Pedestrians wait as far as the cones permit them, as the deafening jackhammers add a sense of real urgency for community members.

This streetscape can only be described as one of flux. A place where micromobility meets construction barrels, and pedestrians navigate bumper-to-bumper traffic of six-wheeler trucks. Furthermore, everyone is rushing somewhere, determined not to let the unbridled ambitions of e-bike and e-scooter operators get in the way of their final destinations, whether it be the C-Town Fresh Market, or the 125th Street Station on the 1 Train. This multilayered clash of interests and desires on the road renders the community’s calls for safety and comfort invisible. Moreover, when this Harlem intersection takes on rush hour, a chain reaction of unease trickles down from the collective refusal to heed the sign’s calls to “Share The Road.”

Ian Nicholson



Bikers and Pedestrian Safety: An Incompatible Relationship

Imagine walking to a friend's house, listening to music, and drinking a refreshing Starbucks beverage on a gruesomely hot day. ZOOM! An e-bike blazes past you, with no regard whatsoever for the light that is clearly red. Luckily, you reacted quickly enough not to get hit. Unluckily, as you moved out of the way, you dropped your iced matcha latte.

Bikes in NYC have a strong tendency to act recklessly. Whether it is running red lights, squeezing in between cars, or traveling at blistering speeds, they present a danger for almost all pedestrians. Everyday in NYC, millions of people rely on traffic signals to ensure their safety when crossing the street, but what happens when a bike moving at 20+ miles per hour decides those signals don’t apply to it? Harlem represents one of our city’s preeminent battlefields, where fast-moving e-bikes and e-scooters weave through crosswalks and roadways, often leaving society’s most vulnerable – senior citizens – caught in its vicious crosshairs.

Seemingly peaceful intersections are not what they seem. Aggressive groups of pedestrians are constantly disrupting the planned organized system of crosswalks. Beyond pedestrians, bikers focus on only the things directly in front, oblivious to any other obstacles besides them. With traffic lights following a neatly automated sequence, everyone is trying to stay in their lane.

This organized chaos reaches a new level of hazard, however, when countdown clocks expire at a speed akin to that of sound. Already having reached 0 seconds, the traffic light is unforgiving. An older gentleman and his walker are made to brave the crosswalk. The intimidating grill of a truck looms threateningly in the intersection. A cyclist in his own world obstructs the crosswalk ready to zoom into the intersection unpredictably. Whether on foot or by bike, all travelers of NYC streets navigate through danger in search of safety.

Ada Chen, Samuel Jimenez-Lozano, Ian Nicholson

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Danger All Around

This photo, which was taken at a Y intersection on West 127th Street and West 126th Street in Manhattan, shows an older man using a cane to help himself walk while he is about to cross the street. He is looking in the direction from which traffic would be coming, which is all he can do as there is a complete lack of signaling equipment for both pedestrians and drivers on all three sides of the road.

While the area is not congested in this photo, the lack of signal technology and the multitude of different directions that traffic could come from is representative of a greater issue within the city. Throughout all of NYC there are streetscapes lacking necessary safety infrastructure, which is critical to making travel safer for pedestrians and drivers.

Even in this photo alone, the pedestrian is already at risk due to the possibility of not being able to react fast enough to any fast moving objects. This could pose a danger to him due to his reduced mobility and his reliance on a cane in order to move. In order to make pedestrians and drivers accountable, we must supply them with the tools needed to make informed decisions, which we can not do if the infrastructure is not there.

Rey Castillo

Out Of Sight, Out Of Mind

This picture was taken around the corner from a senior center on Old Broadway. From going to bingo games and dance lessons, attending this center is engraved in the schedule of many senior citizens. However, before reaching this center, they must conquer the busy three-way intersection. From little to no traffic lights, auto-shops all around, and an array of double parked cars, the chaos of this street is hard to miss. With cars zooming down the one way street, waiting at the intersection, and the honking of cars mixed in the midst, many older residents found crossing hectic roads a daunting task.

The double-parked car, occupying about a quarter of the image, blocks much of the driver's view, reducing awareness of the road. The stop sign, known worldwide as a safety measure, is barely visible, yet should demand the driver's attention. It is instead covered by cars, hiding, and putting pedestrians' safety in jeopardy.

This photo shares the perspective of any given driver traveling this road. As they are driving down the road, all drivers can see are the cars directly in front of them, attributed to the large amount of double parked cars. Peeking over in the corner is the red stop sign. But how visible is this sign? Even when the driver is a couple feet away from the sign, it is still hidden. Only when the driver is 2-3 feet away from the sign is it brought to their attention. This delays the reaction time of the driver, creating a hazard for those crossing the street, which include the elderly. The obscurity of the stop sign combined with the delayed reaction time of many elderly causes this crosswalk to become riddled with danger.

Jayanti Rupee

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Investing in Safety: Lacking Infrastructure

This image shows an intersection with no traffic lights or walk signals. Double-parked cars block sightlines, while a cyclist speeds past. Pedestrians have no clear indication of when to cross, and without streetlights, they're left to make the decision entirely on their own.

The intersection is inherently dangerous, and with a senior center just to the left (not shown), it places some of the city's most vulnerable residents at risk. This photo reflects the broader unpredictability of city streets – an especially hostile environment for pedestrian crossing.

The lack of information when making a decision endangers pedestrians' lives, yet the solutions are simple: stricter enforcement of parking rules, the addition of traffic lights, and the installation of walk signals.

The harsh reality, however, is that many NYC streets have gone without infrastructure improvements, leaving individual pedestrians to fend for themselves when crossing the street.

Jack van Schaik

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Red Means Go? - Jaywalking in Harlem, NYC

A person makes almost 35,000 decisions every single day. Even the most seemingly mundane actions taken by a person are still decisions. New Yorkers' interactions with crosswalks, roads, and the greater city streetscape are all based on a myriad of split-second choices. These fast decisions are a cornerstone of city life and of urban living as a whole. What is at the center of these decisions is time. Pedestrians either walk NYC streets at leisure or are in a rush to get to their destinations. Either way, NYC pedestrians are constantly making decisions on their travel.

The photos displayed all have a few things in common: they were all taken on a hot day, show people crossing the road, and show vehicles within a close proximity to the pedestrian crossing. The most striking similarity, however, is jaywalking – choosing to cross the street when they do not have the right of way. New Yorkers' ubiquitous jaywalking is not just limited to the young and athletic; the disabled and elderly people also do their fair share of jaywalking. Nevertheless, with their delayed reaction times and limited mobility, the cost of a mistake could be injury or even death. Reaction time is crucial for jaywalkers, as decisions need to be made instantaneously. Even with needing to get somewhere, making the wager of one's life for 30 seconds is a dangerous gamble. In all of the photos, there is signage visible throughout the roads and on the streets. Shockingly, the most important safety infrastructure is also present: traffic lights and the pedestrian crossing lights. Yet, it is ignored.

With all of these factors being stated, and the presence of safety infrastructure being apparent, the people in these photos are choosing to jaywalk, putting themselves at risk. While assistive road-crossing technology can have an impact on the experience of street crossing, it is only to the extent to which people choose to implement the technology in their day to day lives.

Rey Castillo, Jayanti Rupee, Jack van Schaik

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Our Artists

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Tristan Burchett

Tristan Burchett is a rising senior at the Saint Ann's School in Brooklyn, New York. Tristan has worked as an intern at Columbia University's CS3 MyStreetscapes program as part of the greater Columbia ENG program during July and August 2025. He and his research team worked to research the ways in which the Harlem and Morningside communities of New York are affected by mobile, web, AI, and surveillance technologies as well as their general knowledge of these technologies. During this project, Tristan specifically has worked to create a browser extension named TurboTerms suited for the Chrome web browser using HTML/CSS and JavaScript that summarizes the terms and conditions of any website by utilizing the OpenAI API. Additionally, users can list their levels of expertise; this tailors to both the summary and the answers to questions about the terms and conditions that users can query. Additionally, he received funding from Dr. Roxana Geambasu, an associate professor of Computer Science at Columbia and project mentor to finance OpenAI gpt-4o-mini calls. Further, Tristan worked with his research team to conduct over 30 interviews and surveys over the course of two data collection days as part of their social science work that informed the creation of TurboTerms. He also co-created an informational video explaining the privacy risks behind web, AI, and surveillance technologies that could be presented to an audience that is not as familiar with these topics as part of his social science work with CS3. Additionally, he and his group generated a Photovoice as an additional medium to convey their concerns surrounding privacy in emerging technologies.

In the future, Tristan seeks to apply his knowledge of computer science to social good projects that truly benefit others. He has already begun to do this in his work with the Surveillance Technology Oversight Project, a nonprofit organization that aims to significantly reduce the prevalence of surveillance technology in New York. He also worked with the NonVisual Desktop Access project through GitHub, improving their screen reader technologies. Specifically, he added a feature that allows NVDA's products to work in dark mode on Windows. Additionally, Tristan created a mobile application named Endangered Voices that aims to teach users languages that are in danger of dying out. He presented this at the selective National STEM Festival in Washington DC and won the EXPLR award. He has also engaged in smaller technical challenges, such as the FIRST Robotics competition with his high school. Further, Tristan enjoys connecting with his local community, as evidenced by his volunteer work at the SAGE organization, where he volunteers in the Cyber Center.

Our Artists

Jayden Wong

Jayden Wong is a senior at Forest Hills High School in the Carl Sagan Program. In the summer of 2025, he was an intern at the NSF Center for Smart Streetscapes (CS3). During which he conducted interviews, alongside his team, in Harlem to identify knowledge gaps about digital privacy and surveillance. Based on what he heard in the community, Jayden co-developed a Chrome extension that simplifies Terms & Conditions, contributing key ideas that guided its design and functionality. In addition to the chrome extension, Jayden co-produced an educational video and co-created a photovoice exhibit all to help bring more awareness to privacy risks.
CS3 has taught Jayden the importance of designing technologies with the community's interest in mind. He is currently applying these lessons in his ongoing collaboration with researchers at both the NSF AI Institute for Artificial and Natural Intelligence and the Hall of Science, where he will be designing interactive exhibits that make artificial intelligence more accessible and understandable to the general public. Jayden hopes to carry these experiences forward as he pursues a B.S. in biomedical engineering.

Leilanie Lewis

Leilanie Lewis is a Senior at Martin Van Buren High School in Queens, New York. She is currently an Explainer at the New York Hall of Science, committing a year to the Artificial and Natural Intelligence (ARNI) Program. Participating in ARNI involved devoting her summer to the Columbia ENG CS3 Program. Over the summer, Leilanie collaborated with Columbia faculty and peers to study the stigma behind how privacy is managed by numerous webtech applications and surveillance technologies. In this program, she conducted social science research exploring community perspectives on issues of privacy. Leilanie plans to apply the social science skills learned in the ARNI program to neuroscience technology integration. As an aspiring neurologist, Leilanie would like to study how to regulate reactions to negative stimuli, using nonmedicinal interventions. Leilanie looks forward to a future career studying neurological solutions in supporting people’s well-being.

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Our Artists

Samuel Jimenez Lozano

Samuel Jimenez Lozano is a senior at Riverdale Country School in the Bronx with a passion for STEM and intercultural learning. At the Center for Smart Street Scapes (CS3), he worked with a research team to develop a virtual reality program aimed at enhancing awareness and safety for elderly pedestrians in Harlem. In the future, he hopes to use engineering as a means to better the community around him. Beyond STEM, Samuel has broadened his global perspective through international experiences, including a service learning trip focused on sustainable communities to South Africa and Namibia, an exchange trip in Bordeaux, France, and a full semester abroad in Rennes, France. In his free time, you can find him on the soccer field or listening to various reggeatón artists.

Ian Nicholson

Ian Nicholson is a senior at Hunter College High School in New York. At CS3, he particularly enjoyed weaving real-time micromobility data from complex traffic systems with community-based engagement with senior citizens. Outside the Innovation Hub, Ian is a nationally ranked chess player, captaining his school's program and serving as the president of New York City Chess Connections. In the future, he hopes to blend statistics and data science with the humanities and social sciences to drive community impact.

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Our Artists

Ada Chen

Ada Chen is a senior at The Brooklyn Latin School, where she is enrolled in the International Baccalaureate Program. She intends to pursue civil engineering in college, with a focus on applying technical knowledge to improve urban infrastructure and community well-being. To strengthen her academic and research foundation, she joined Columbia University's Center for Smart Streetscapes (CS3) program. Within CS3, she contributed to the Virtual Reality for Older Pedestrians project, which investigated how immersive technology can enhance safety and accessibility in urban environments. This experience has allowed her to integrate engineering principles with technological innovation while addressing real-world challenges. Through her work, she has developed a strong interest in sustainable infrastructure and human-centered design. She looks forward to continuing research at the intersection of engineering and technology.

Rey Castillo

Rey Castillo is a senior at Curtis High School.

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Our Artists

Jayanti Rupee

Jayanti Rupee is a high school senior at Brooklyn Technical High School, which cultivated her hopes in pursuing an engineering field. In her junior year, she joined the school's First Tech Challenge (FTC) Robotics team. It fostered her interest in STEM by seeing her brainstorms and prototypes come to life. Curiosity eventually led her to apply to the Center for Smart Streetscapes (CS3) to develop her knowledge of the social impacts on engineering. In her project, she created pedestrian-warning systems that contribute to a larger scaled-down testbed. While working on this project, she created computer-aided designs, coded, and prototyped signals to aid pedestrians; it enriched her love with robotics by putting it into a real-world application. Jayanti found relevance of community voices through interviewing and surveying. Their input allowed her to see the impact of community voices in her work with technology.

Jack van Schaik

Jack van Schaik is a high school senior with a strong interest in Mathematics and Physics. Working with CS3 this summer, he contributed to the creation of a collision notification device aimed at improving urban street safety. Jack enjoyed applying analytical thinking to a real-world problem and is eager to keep exploring the intersection of technology, data, and safety.

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Our Artists

Mia SzczesniaK

Mia is a Senior at the Loyola School in Manhattan, New York. She was a part of the Columbia University ENG CS3 program. Over the summer Mia did research with Columbia faculty about AI and its security issues seen in society today. In addition, through her research she wanted to get rid of the stigma that AI is stealing our information, and instead teach others how it can be useful in society. Furthermore, in this program she also gained many social science skills and applied them to her research project. Mia went out into the community and interviewed people to get a scope of how society feels about AI. Outside of this program Mia works at Kumon as a teacher assistant for younger students. At school she is a part of stock market club, an editor of her school newspapers, in coding club, in green team, and so many more. She wants to study engineering, either chemical or biomedical engineering. She looks forward to applying the great skills she learned over the summer to future projects.

Sofia Acevedo

Sofia is a senior at Bard High School Early College.

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Our Artists

Tiffany Qu

Tiffany Qu is a senior at Stuyvesant High School and planning to pursue civil and environmental engineering in her higher education. At NYU Innovation, Entrepreneurship, and Science of Smart Cities (ieSoSC), she spent a month collaborating in a team to design and build a working prototype of an energy-efficient cooling device for public seats in a month. This developed her interest in engineering, leading her to apply to the Center for Smart Streetscape (CS3). She worked with CS3 on building an app to detect trash on 125th Street, Harlem to reduce trash on streets. Through CS3, she conducted a research report on how AI trash detection technology can improve the lives of 125th Harlem community members by interviewing community members for their thoughts on the trash on the street and the app being developed. At CS3, she developed her passion for civil engineering and decided to combine her interests in environmental science and enhance accessibility and safety of cities. Her love for nature stemmed from her extensive time spent outside.

David Gelpi

David Gelpi is a rising senior at Columbia Secondary School. This summer he was a part of the Columbia CS3 program and worked on building a mobile app designed to help with trash problems in Harlem. By conducting interviews, research, and working on a functional app, David learned how to put technology into action to have an impact in a community. David will carry on this work through the study of computer science and applied math, using technology to solve problems and make a difference for underserved populations.

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Our Artists

Allen M. Rivera

Allen is a senior at Park East High School.

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