ISSUE BRIEF

OK, SCOOTER

A DILBERATION ON PENN STATE UNINVERSITY ELECTRIC SCOOTER REGULATIONS

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5 – 6:30 PM
Downtown Hyatt

INTRODUCTION

We've seen them, from athletes coming from practice to the students who woke up five minutes before class, they share one growing means of transportation - electric scooters. Since 2017, electric scooters have been everywhere from corner streets in LA to college campuses in Minnesota. Electric scooters show no sign of slowing down as the technology hits the masses, it becomes cheaper and more reliable for the consumer to purchase. While, rental companies continue to raise money such as Lime which raised 295 million dollars in January 2019 alone which shows a trend of continued expansion (1). This has led to the question for many administrators on how to regulate electric scooters. In addition, electric scooter Cities such as San Francisco and Nashville have done pilot programs with electric scooters only to ban them a couple months later (1). Other cities such as Fort Lauderdale continue to allow and have them openly on their streets. With Zagstar's bike contract to be the sole provider of an alternate form of transportation for Penn State expiring soon, the UPUA (University Park Undergraduate Association) is exploring options to possibly contract a third-party electric scooter provider such as bird or lime. However, currently there is a lot of grey area for the legality of electric scooters on campus at Penn State.

Scooters are considered to be motor driven devices which do not meet the PA Vehicle Code requirements for operation on a public highway are prohibited from use on University property; to include buildings, roadways, sidewalks, bike paths and shared pathways (2). Therefore, the use of skateboards and skateboard-like devices on campus property is prohibited.

Currently, first time offenders of having an electric scooter receive a $25 citation that can be reduced to nothing if the violator completes an online course known as beep (2). This online course though is outdated as it is for bike violations and mentions nothing about electric scooters. Also, Penn State does not make clear what happens if someone has a second violation.

Scooters are used by a wide variety of college students for numerous reasons. The most common method of use stems from the opportunity to cross campus relatively quickly. The average college student will use a scooter to gain that extra five minutes of sleep, use the bathroom, or grab a snack before class. Alternatively, some students use scooters after injuries. By propping their leg on a pad and traveling via scooter, they avoid the grueling process of traveling on crutches. Athletes may choose to use scooters in an effort to lessen the physical strains on their body after a workout. There are also the kids who simply thrive off convenience.

No matter the use, electric scooters are becoming a popular alternative of transportation for college students, which may also be regarded as an environmentally friendly option. With the assumption that the number of scooters on campus will skyrocket in time, how should we address the University regulations which prohibit them? Should we keep students walking, or let them scoot? Today's discussion will entail three possible solutions to this situation: ban the use of electric scooters for all purposes, regulate scooters to ensure pedestrian safety, or allow scooters to operate under the same laws as bicycles on campus.

1: Johnson, Sydney. "Now Those Electric Scooters Are Causing Headaches on College Campuses, Too." *Scooting to Class*, Slate, 7 Sept. 2018, slate.com/technology/2018/09/bird-lime-dockless-electric-scooters-college.html.

2: "Penn State Policies." *Regulations for Bicycles / Skateboards / Scooters / In-Line Skates / Roller Skates / Electric Personal Assistive Mobility Devices | Penn State Policies*, 2015, policy.psu.edu/policies/sy16.

Through this approach, students would be legally able to operate electric scooters on campus, but several regulations would be enforced to have an official record of scooters on campus and ensure safety. Some fundamental regulations would pertain to the following areas: registration, travel routes, speed limits, and helmets.

APPROACH #1

PROS

- Gives students the freedom to use electric scooters
- Promotes safety through regulation

CONS

- Potential danger if regulations are neglected
- Hazards to persons on sidewalks

Registration: The University mandates that all bicycles must be registered and have a valid permit. This registration allows the University to ensure that bicycles meet all safety requirements (1). The permit that is provided is valid on the University Park campus and in the Borough of State College. By implementing this process with electric scooters, the University and Borough of State College would be able to ensure that the scooters meet safety regulations, and an official record of registered scooters would also be kept on file.

Travel Routes: Since electric scooters do not meet Pennsylvania's vehicle requirements for roadway vehicles, electric scooters would not be permitted on the roadways and subsequently would be operated on the sidewalks (2). Having electric scooters weave between crowded sidewalks poses a dangerous situation that could result in a collision. Therefore, the University and the Borough would establish which sidewalks motor scooters are permitted on and which ones they are not. With that, the University could analyze traffic patterns to only prohibit certain sidewalks during peak times of pedestrian travel.

Speed Limits: One of the reasons that electric scooters are prohibited from roadways is that the electric scooters do not have the ability to travel at the flow of traffic. When you put scooters on the sidewalks, this danger is then imposed on pedestrians since pedestrians cannot walk at the top speeds of scooters. WIRED states that electric scooters can only travel at a top speed of 18 miles per hour (3). Scooters zooming by pedestrians at 18 miles per hour could result in very harmful collisions. Therefore, the University and the Borough would establish appropriate speed limits for sidewalks on the permitted travel routes.

Helmets: In a recent study on scooters, it was found that 94.3 percent of riders were not wearing a helmet and that 40 percent of injuries were to the head (4). Requiring helmets would reduce the rider's risk for injury. This would improve safety on campus and in the town and would also reduce the liability that the University and the Borough could face as a result of injuries.

1: "Bicycle Registration." Bicycle Registration | PSU Transportation Services, transportation.psu.edu/bicycle-registration.
2: "Motor-Scooters." PennDOT Driver & Vehicle Services, www.dmv.pa.gov/VEHICLE-SERVICES/Title-Registration/Pages/Motor-Scooters.aspx.
3: So, Adrienne. "The Levy Plus Is a Smooth Ride That Won't Break the Bank." Wired, Conde Nast, www.wired.com/review/levy-plus/.
4: Quintana, Chris. "On Campuses Electric Scooters." Chronicle.com, www.chronicle.com/article/On-Campuses-Electric-Scooters/245757.

APPROACH #2

Even while wearing a helmet, e-scooter riders have a great risk of injury.

Knowing the elevated risk of injury, those who are in favor of permitting the e-scooters may site *helmets* has a way to prevent serious injuries; however, studies have shown that even while wearing a helmet, e-scooter riders have a great risk of injury. In fact, in a recent study done by UCLA (published in the JAMA Network Open medical journal) found that 4.4% of the **249 patients who were admitted to the emergency room with e-scooter related injuries *were* wearing helmets** (McCarthy). Riders do not want to wear a helmet because they don't find them attractive. (Trivedi, et all.). These injury rates shouldn't be too surprising as the e-scooters leave most of the body exposed to any potential bodily harm begging the question, would helmets even help?

> "The most common injuries were **fractures** (31.7%), **head injuries** (40.2%), and **soft-tissue injuries** (27.7%)" (Trivedi, et all.)

Besides being a danger to the rider themselves, e-scooters are a great hazard to pedestrians. Results from the same survey stated that, "of the 249 patients, 228 (91.6%) were riders and 21 (8.4%) were non-rider pedestrians" (Trivedi, et all.).

This ban would clarify PSU's rulebook so no further interpretations can be argued.

Bicycle **tires are physically much bigger, safer, and more secure** than e-scooter tires. Bike tires have a much greater diameter than an e-scooter tire which allows them the ability to ride over bumps, the lip of the sidewalk/driveways, and obstacles (McGee, et all). The same cannot be said for the tires of an e-scooter which, being much smaller, have a great disadvantage of navigating these common challenges. In addition, the scooter tires themselves are made of a different material than bike tires. E-scooters have solid tires that are cheaper to manufacture and prevent excess upkeep (such as ensuring the tires are filled with air). While this is a good business and efficiency strategy, it results in greater risk of injury. Bike tires, being larger and filled with air, allow for more cushion and absorption meaning the bike ride can over obstacles in its path (McGee, et all).

Also, **scooter riders, particularly when riding at night, are less visible**; therefore, riders have a greater likelihood of being hit by, or hitting, a car or pedestrian. Riding at night raises the risk as e-scooters, unlike bikes, have a much less visible safety light. Bikes, having a taller and longer structure, have more available space for reflective lights and other safety features. E-scooters have only *two* realistic locations to place these lights. This lack of safety features leads to a *much* greater risk of injury than any bike.

Why allow scooters, with their greater risk for injury (and therefore greater liability for PSU and the riders themselves), when bikes are already permitted, regulated, and do the same job as e-scooters. Why create risk, when there is already an equal –if not better- alternative?

PROS:

- Maintain the safety of pedestrians
- Less/no scooter related injuries
- Complicated integration for storage and registration as scooter do not fit well with many traditional bike racks
- Keeps drunk scooter riders off the campus

CONS:

- Will we be able to mandate this?
- Will people keep using the scooters illegally?
- Scooters can provide easily accessible transportation
  I expect other approaches to bring this up

McCarthy, Niall. "How Dangerous Are Electric Scooters?" *Forbes*, 4 Feb. 2019, www.forbes.com/sites/niallmccarthy/2019/02/04/how-dangerous-are-electric-scooters-infographic/#348242cb469c.

McGee, et al. "Are Electric Scooters More Dangerous than Bicycles?" *Are Electric Scooters More Dangerous than Bicycles?*, Linkedin, 19 Apr. 2019, www.linkedin.com/pulse/electric-scooters-more-dangerous-than-bicycles-don-dicostanzo/.

Trivedi, Tarak K., et al. "Injuries Associated With Standing Electric Scooter Use." *JAMA Network Open*, vol. 2, no. 1, 25 Jan. 2019, doi:10.1001/jamanetworkopen.2018.7381.

APPROACH #3

A third approach to addressing dangers caused by the increasing presence of electric scooters on sidewalks would be to legally reclassify them to account for how they're typically used.

PROS:

- Allowing electric scooters to ride the streets on campus would free them to avoid pedestrian traffic.
- Allowing electric scooters in the streets would also benefit their riders by allowing them to fully use the speed of which they are capable.

CONS:

- Electric scooters could cause congested streets, creating traffic dangers.
- Electric scooters are more difficult to equip with lights and reflectors than are bicycles.

A third approach to addressing dangers caused by the increasing presence of electric scooters on sidewalks would be to legally reclassify them to account for how they're typically used. Pennsylvania law groups skateboards, roller skates, kick scooters, and similar devices together with their electric equivalents: electric skateboards, Onewheels, hoverboards, and electric scooters (3). While the manual vehicles may be more suited to sidewalks than roadways, most of their electric equivalents are faster and more powerful. Electric scooters usually have a maximum speed of around 20 MPH (2), which is 5 MPH over the speed limit of the main roadways on Penn State's University Park campus. 20 MPH is also the maximum speed of which electric bicycles can be legally capable without being pedaled (3), making electric scooters equivalent to electric bicycles without pedals. But despite their equivalency in power, electric bicycles are legally grouped with normal bicycles—which are allowed on campus roadways—while electric scooters are grouped with slower vehicles and thus restricted to sidewalks, where they often pose a danger to pedestrians.

But while imposing rules on electric scooter use on sidewalks is one way to address its dangers, it isn't the perfect solution. Many scooter owners simply ignore the rules (1), riding too fast on sidewalks and colliding with pedestrians. Scooters are built for speed, so it is illogical to restrain them to an environment in which they can't maximize their potential. While bicycles and electric bicycles have capabilities comparable to those of electric scooters and are also allowed on most sidewalks on campus, they pose far less danger to pedestrians because they're allowed on roadways and can use them to bypass congested pedestrian traffic when convenient. Legally regrouping electric scooters with bicycles and allowing them on roadways, at least the ones on campus with low speed limits, would free their riders from unnecessary conflict with pedestrians and would likely put less of a strain on law enforcement than would regulation of their use on sidewalks.

That being said, allowing electric scooters to be used in the streets on campus has its own set of problems. While electric scooters are capable of keeping up with the slow pace of road traffic around campus, they could possibly congest roadways, causing the same kinds of dangers that cyclists create when they ride recklessly. With too many cyclists and scooters on the street, some of them are inevitably going to crash, get doored, or threaten the safety of crosswalks. Scooters are also more difficult to equip with sufficiently visible lights and reflectors than are bicycles, making them possibly more dangerous in the streets on campus. However, the danger that scooters pose in the streets on campus is far less than the danger that they pose to pedestrians when used on congested sidewalks. On your average walk along Pollock Road, it's pretty clear that the sidewalks have far more people on them than do the streets. Given the functional equivalency of electric scooters to bicycles, there's no reason to give them less freedom to avoid collisions than that given to bicycles.

1: Hopper, John. "How Fast Are Electric Scooters: RideTwoWheels Blog." *Ride Two Wheels*, Ride Two Wheels, 17 June 2019, www.ridetwowheels.com/fast-can-electric-scooters-go/.
2: Leefeldt, Ed. "Electric Scooters Are Igniting New Laws, Liability Concerns and Even 'Scooter Rage.'" *CBS News*, CBS Interactive, 2 July 2019, www.cbsnews.com/news/electric-scooter-backlash-leads-to-new-laws-and-scooter-rage-july-2019/.
3: "Penn State Policies." *Regulations for Bicycles / Skateboards / Scooters / In-Line Skates / Roller Skates / Electric Personal Assistive Mobility Devices | Penn State Policies*, Penn State University, policy.psu.edu/policies/sy16.