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# Bike Safety Awareness

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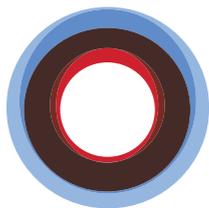
Civic Innovation Lab

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April 30, 2015

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Kimi Oyama  
Rob Schulz  
Danny Tirado



**“The city of Chicago moved from tenth to fifth of most bike-friendly cities in the country in one year. ... In the same year, the city of Chicago moved from fifteenth to tenth worldwide in startup economy. ... You cannot be for a startup, high-tech economy and not be pro-bike.”**

- Mayor Rahm Emanuel, 2012

**“My goal is to make the City of Chicago the most bicycle-friendly city in the U.S.”**

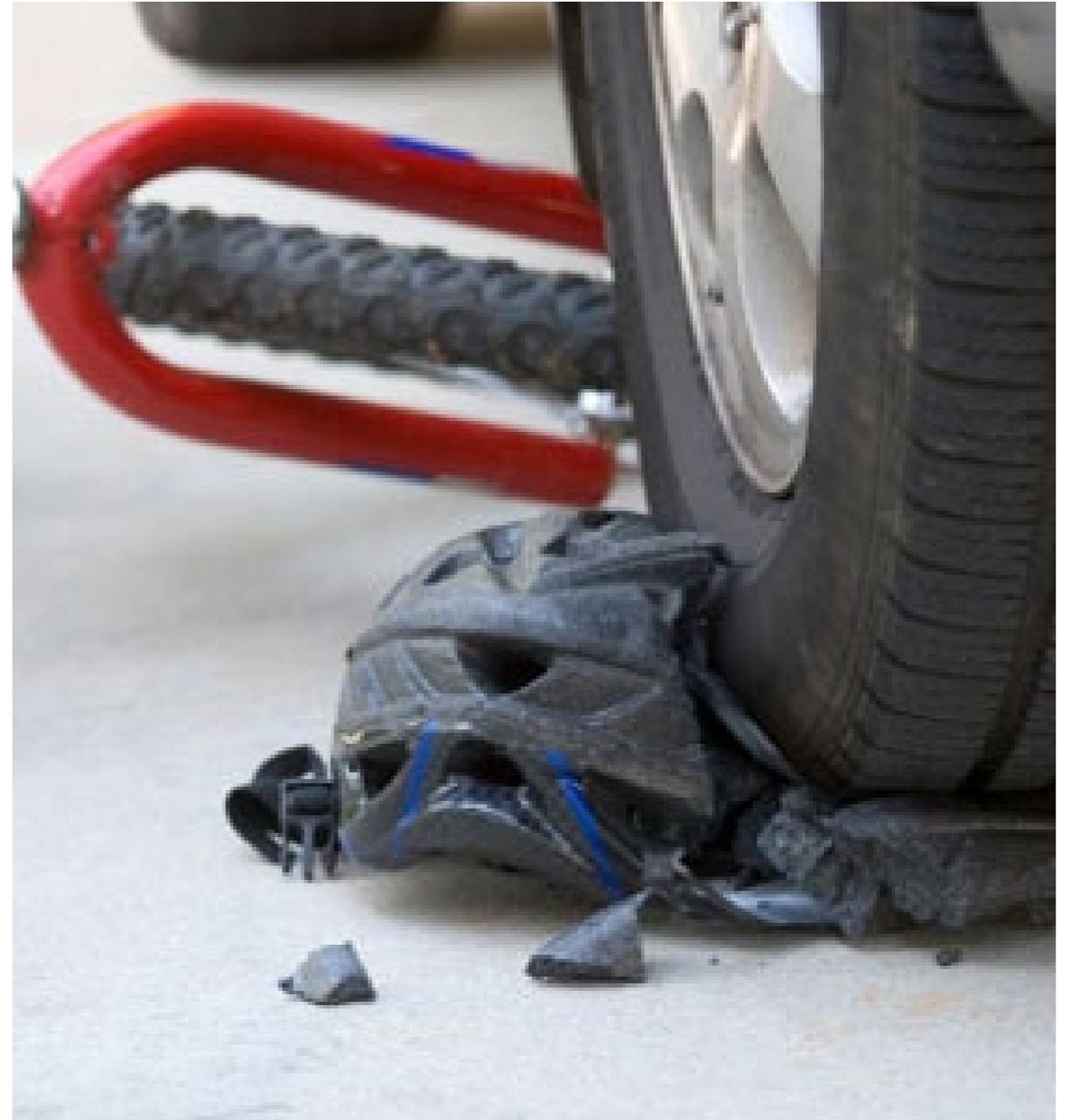
- Mayor Richard M. Daley, 2010

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# Chicago's Bike Safety Challenges

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- Chicago is evolving into one of the most bike friendly cities in the world.
- An average of 1,500 bicycle crashes are reported each year and that number has been rising.
- Although focused programs and efforts by the city to improve bicycle safety are underway, more can be done to highlight and reduce preventable hazards.



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# Primary and Secondary Research

We conducted observations at intersections, distributed a survey to cyclists on safety concerns, and interviewed 6 different cyclists on safety

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## Survey Findings

- 85% of the people surveyed expressed a preference for riding on streets with protected lanes.
- 39% of them felt that unsafe motorist behavior posed the biggest threat while biking.
- 75% admitted to planning their bike routes in advance.
- 82% of them stated they would take a longer commute if it meant avoiding unsafe intersections and road hazards.

**“Be aware of what’s going on around you and try to minimize the risk when possible.” - Kevin**

**“Buffered bike lanes are great, but I won’t go out of my way to use them if it’s not in my route” - Jon**

# Cyclist Profiles



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## Original Objective

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To increase hazard awareness to help cyclists make informed safety decisions to proactively reduce or be aware of risk on their routes.

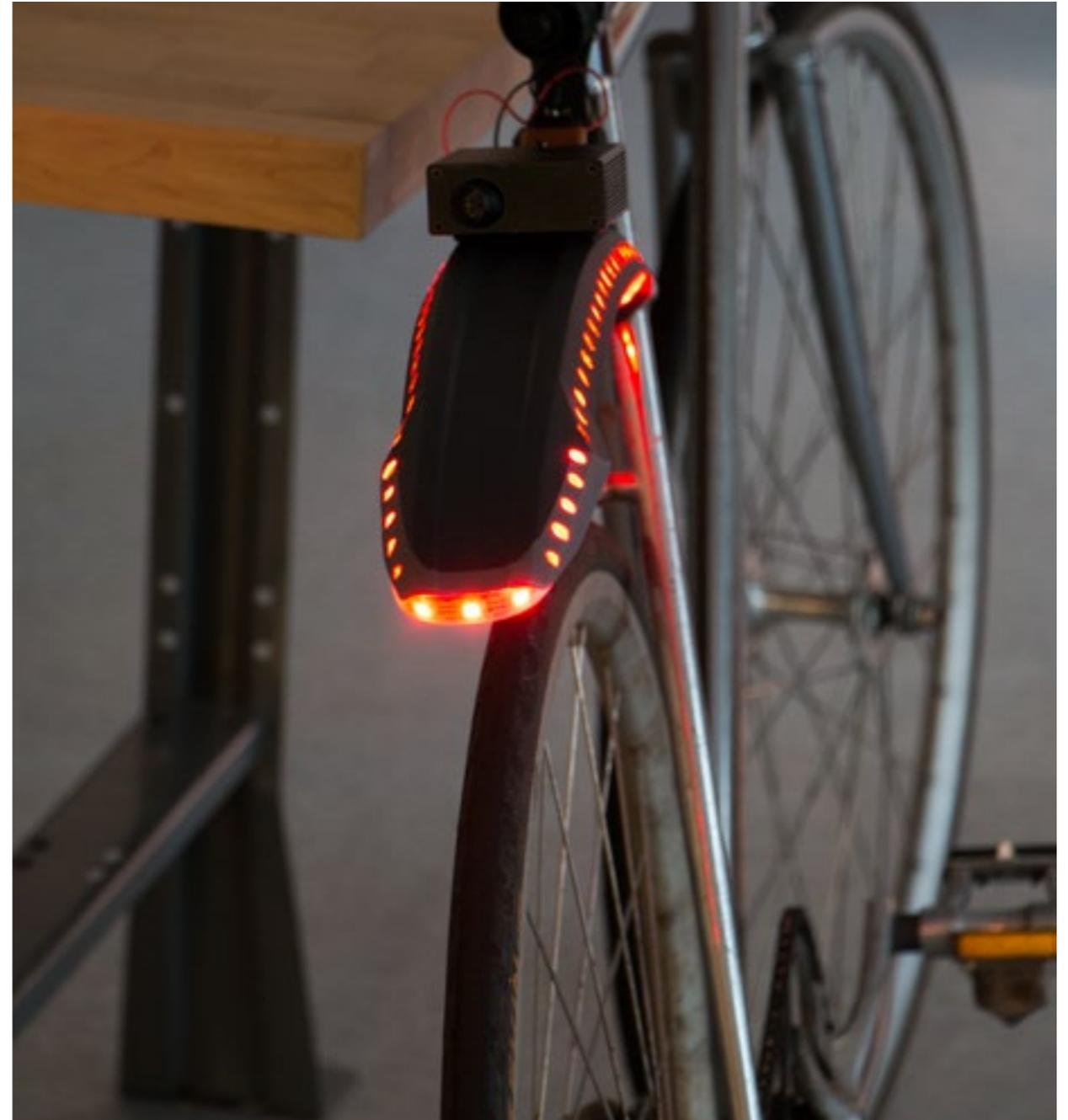


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# Pushing Further

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After many explorations, it became clear that if we want to make a real impact, we need to engage, in real-time, both cyclists and motorists.





There are a lot of concepts and products that strive to do this, most are novelty or basic safety gear.





Bike lights are an essential safety aide.



How can they be improved?



# Responsive Bike Light Concept

Our idea was to incorporate sensors and an alert tone into a smart bike light that responds to objects approaching and changes pattern to more effectively alert motorists and cyclists.

It was obvious that the sensor needed to face the rear..



Danny's bike needs a mud guard...



**Fenders provide a sleek space for electronics housing and a combined functionality.**

**Fenders allow increased surface placement for lights to increase visibility and patterning options.**



Introducing

# Hindsight



# Hindsight

Practical gear ---> Data collector ---> Data sharer

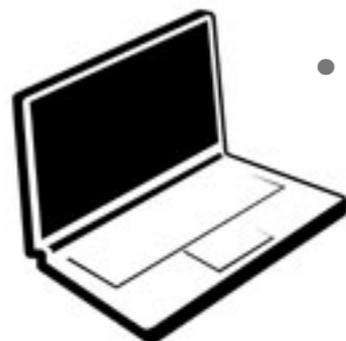


1. Sync



2. Ride and Record

4. Share and View Other Rides



3. Review Ride

The background is a dark blue, almost black, scene. A curved line of small, glowing orange lights arches across the middle of the frame. In the lower foreground, the top of a steering wheel is visible, suggesting the perspective is from the driver's seat of a car at night.

Introducing

# Hindsight