

#### Advances in Motorcycle Technology, Part II

#### Addressing Electric/Automatic Motorcycles within Rider Training



**Round Table Discussion** 





- 1. Discuss how electric and/or automatic motorcycles are impacting and will continue to impact what we know and what we teach in RE
- 2. Define a basic framework for if, when, where, and how to start integrating electric and/or automatic motorcycles into rider education





#### What This Session is NOT About...

- 1. Specific models/manufacturers
- 2. Comparison of models
- 3. Current curriculum specifics
- 4. Micro-mobility & offroad equipment, i.e., "e-bikes"







# If not us, WHO? If not now, WHEN?





## Definitions

• Electric Motorcycles and Scooters

**Electric motorcycles and scooters** are plug-in electric vehicles with two or three wheels. Power is supplied by a rechargeable battery that drives one or more electric motors. Electric scooters are distinguished from motorcycles by having a step-through frame, instead of being straddled. Electric bicycles are similar vehicles, distinguished by retaining the ability to be propelled by the rider pedaling in addition to battery propulsion.

Electric scooters with the rider standing are known as e-scooters.

en.wikipedia.org/wiki/Electric\_motorcycles\_and\_scooters



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## Definitions

Automatic Motorcycles and Scooters

#### What is an Automatic Motorcycle?

You may hear experts recommending beginners to ride automatic motorcycles, but have you ever wondered what an automatic motorcycle is?

The automatic motorcycle is a kind of motorbike category in which riders don't need to change the motorbike gear just like riders do in traditional motorbikes.

Instead, in an automatic motorbike, the gear is changed automatically by an onboard computer and doesn't require any clutch engagement.



motorbikespace.com/what-is-an-automatic-motorcycle/





## **Identify Challenges**

- No established industry standards
  - Policies or inclusion/exclusion
- No recognized comparative analysis of kilowatt output and cc's
  - How do we know?
  - How do instructors/coaches identify?
  - Who determines "what is safe?"





## **Identify Challenges**

- Conducting clutch control exercises for students on automatic motorcycles and scooters
  - Integrate or separate?
- No recognized comparative analysis of kilowatt output and cc's
  - How do we know "what is safe?"
  - Who determines "what is safe?"
  - How do instructors/coaches identify?





## **Identify Challenges**

#### Programming for training

- How do we know what we need?
- Is it consistent
- Is it realistic/effective

#### • Misinformation/Misconceptions

Sales people/dealers

#### How To Ride <u>An</u> Electric Motorcycle?

Riding an electric motorcycle is much easier than a regular one.

There's no clutch, no carburetor, no tricky components to get the hang of. All you have to do is position yourself right, start the bike up and use the throttle to go and the brake to slow down. There may be some settings you want to set up first, but all of these are as easy as manipulating a standard digital app menu.

https://riderhow.com/guide-electric-motorcycles-rules-advantages/





#### **Next Steps**

- Where do we go from here?
  - Webinars?
  - Info sessions?
  - Other?





## Thank you!