

Analysis of Instagram as a viable and credible mean to gather data for research applied to bike patrol police officers

UQAC

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Problematic

- ▶ Research methods aim to be closest to reality as possible.
- ▶ There are no optimal research methods when looking at first responders in a road safety context.

Objective

- ▶ To test the efficiency of using a social media platform to gather usable and credible data on bike patrol police officers.

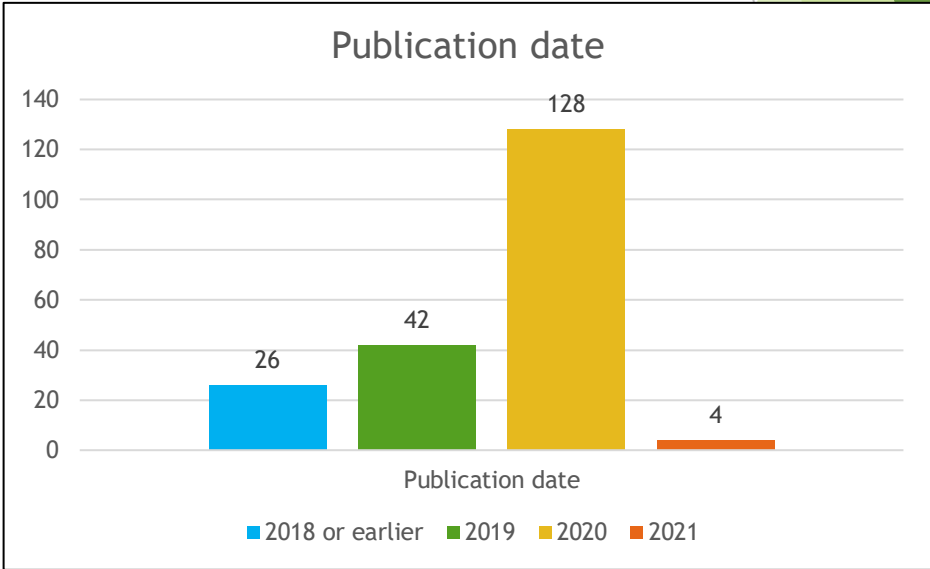
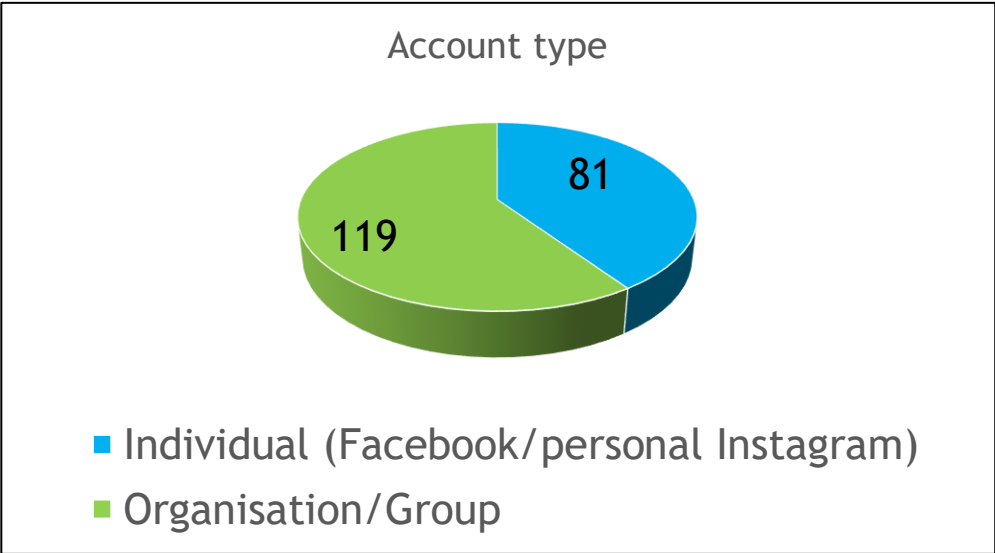
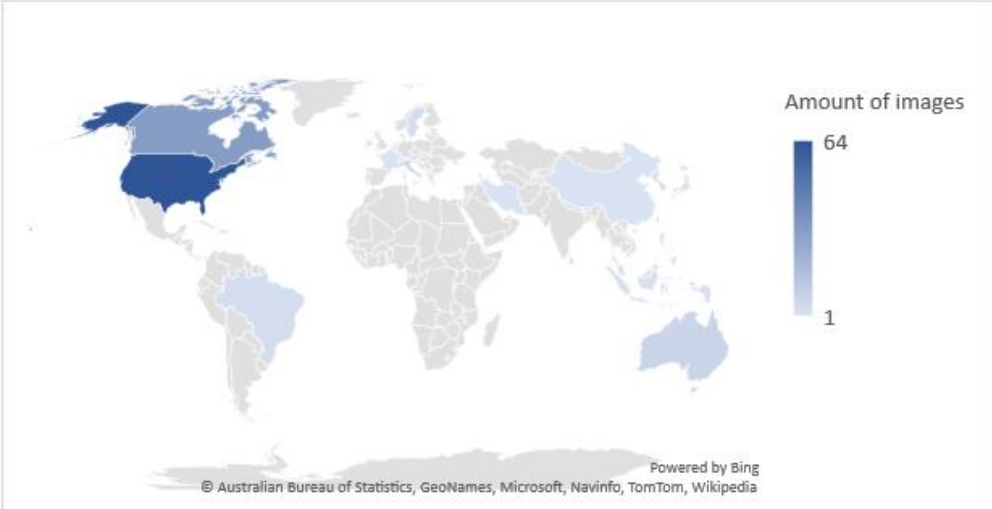
Methods

- ▶ 200 images were extracted from Instagram.
- ▶ The images were found with 1696 keywords.
- ▶ Inclusion criteria:
 - ▶ At least one bike patrol police officer.
- ▶ Exclusion criteria:
 - ▶ Riots.
 - ▶ Training camps.

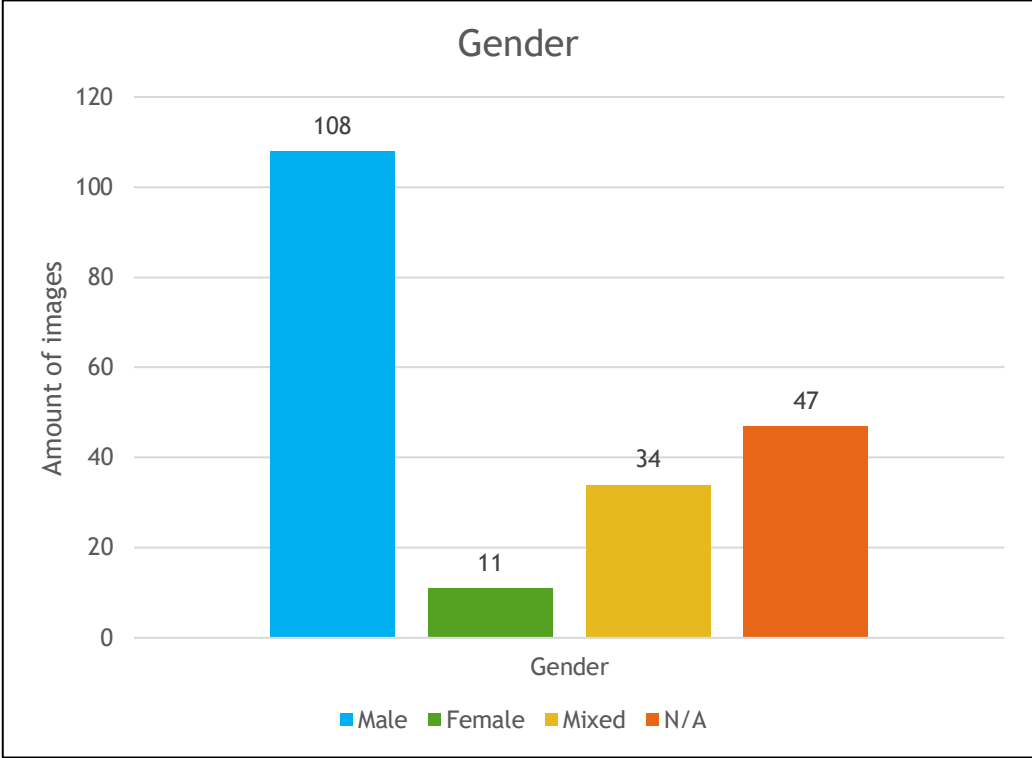
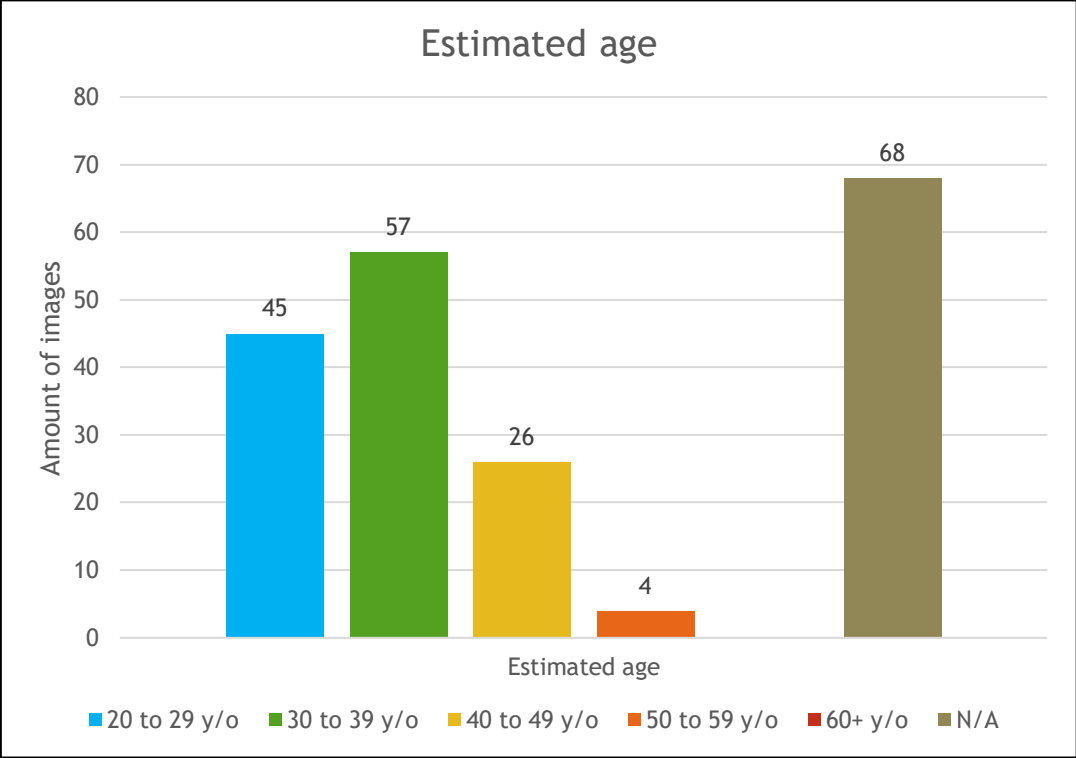
Methods

- ▶ 45 descriptive variables were used on each image using Google Forms.
 - ▶ Information on the image
 - ▶ Upload date, upload location, account type.
 - ▶ Information on the police officer
 - ▶ Age, sex, ethnicity, police identification.
 - ▶ Information on the police officer's equipment
 - ▶ Helmet, bulletproof vest, glasses, shoes, pants, shirt, gloves, reflective gear.
 - ▶ Information on the bike
 - ▶ Tires, bike model, sirens, speed system, type of bike, electric motorized bike.

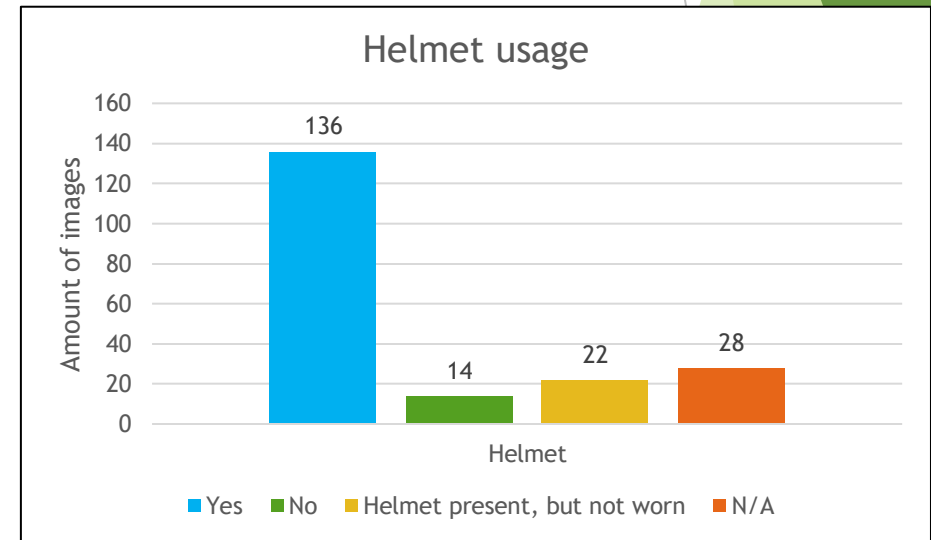
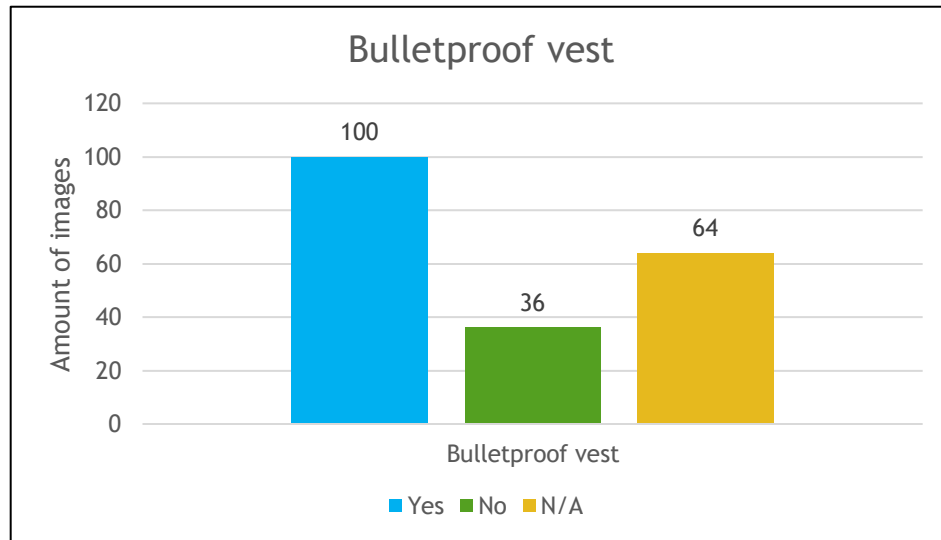
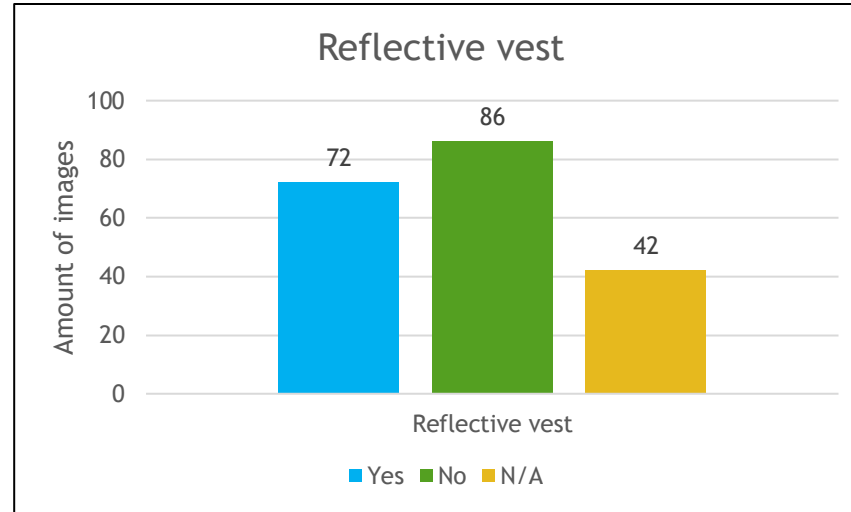
Results – Information on the image



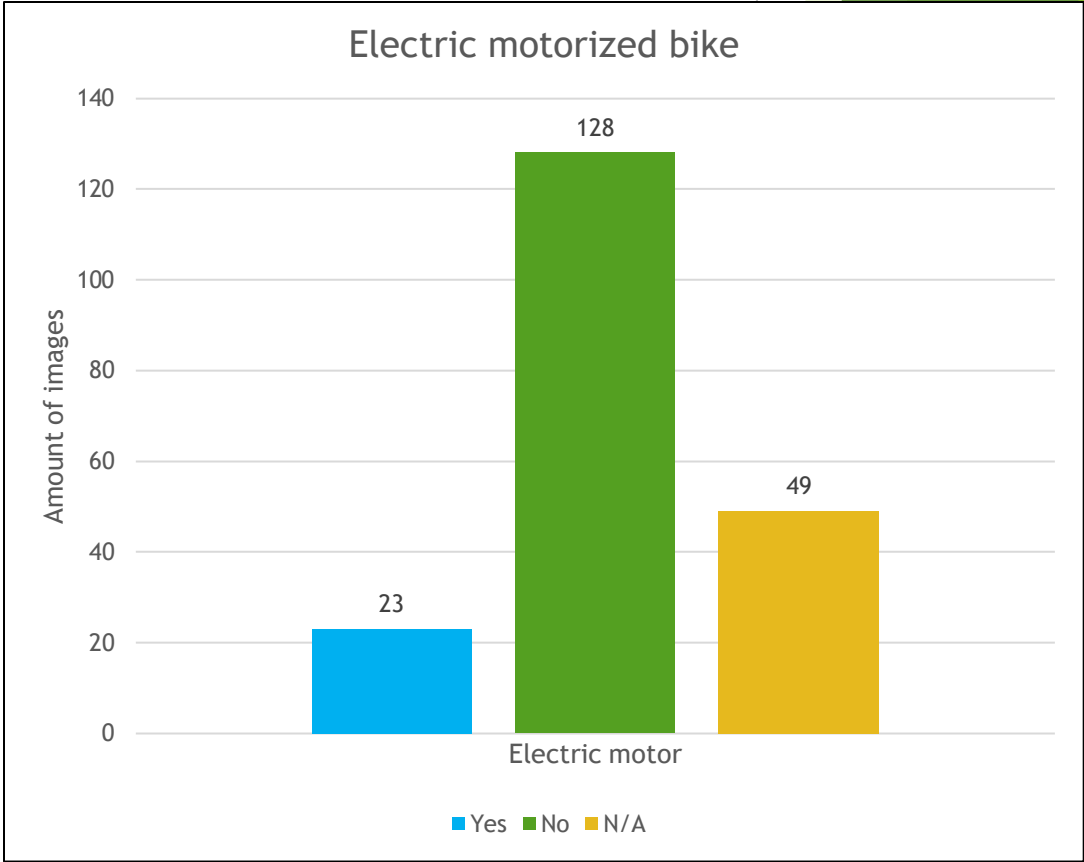
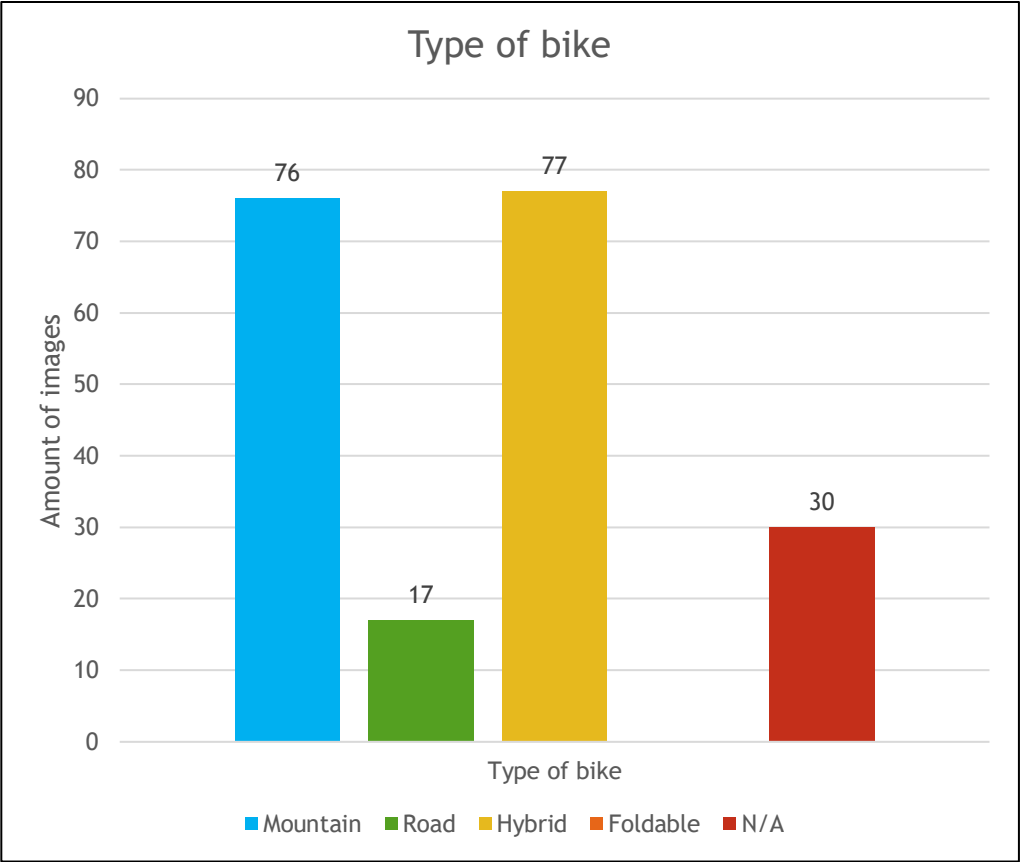
Results – Information on the police officer



Results – Information on the police officer's equipment



Results – Information on the bike



Results – General information

- What does the average bike patrol police officer look like?

Variables	Category	Amount of images
Account type	Organisation/Group	119 (59,5%)
Publication date	2020	128 (64%)
Estimated age	30 to 39 years old	57 (28,5%)
Gender	Male	108 (54%)
Ethnicity	Caucasian	112 (56%)
Bicycle color	Black	134 (67%)
Police identification	Yes	126 (63%)
Type of bike	Hybrid	77 (38,5%)
Top tube	Slanted	118 (59%)
Bike seat	Sports seat	92 (46%)
Front suspension	Yes	144 (72%)
Back suspension	No	77 (38,5%)
Backpack on the bike	Yes	140 (70%)
Electric motorized bike	No	128 (64%)
Brake type	Disc brakes	105 (52,5%)
Tire type	Hybrid tires	93 (46,5%)
Speed system	Derailleur	91 (45,5%)
Foot restraint	None	102 (51%)
Tire reflector	Yes	84 (42%)
Siren	No	170 (85%)
Rotating light	No	131 (65,5%)
Helmet	Yes	136 (68%)
Helmet type	Road	145 (72,5%)
Helmet color	Black	81 (40,5%)
Glasses	Sunglasses being worn	62 (31%)
Shoes	Sports shoes	79 (39,5%)
Bulletproof vest	Yes	100 (50%)
Gloves	Yes	93 (46,5%)
Pants	Long	75 (37,5%)
Pants color	Black	136 (68%)
Shirt	Short-sleeve	110 (55%)
Police identification	Yes	157 (78,5%)
Reflective vest	No	86 (43%)
Police officer movement	No	155 (77,5%)
Perspective	External	182 (91%)
Viewpoint	Front	69 (34,5%)
Perpendiculaire	Non	150 (75%)
Arrest	No	198 (99%)

Discussion

- ▶ Documenting bike patrol police practice in regards to equipment is feasible.
- ▶ International scale
- ▶ Looking in the future to electric motorized bicycles

Limitations

- ▶ A time-consuming process
- ▶ Assumptions were subjectively made based on the image.
- ▶ Caution to be taken with:
 - ▶ The data chosen to be extracted.
 - ▶ The source of the images.

Conclusion

- ▶ Educational guidelines
- ▶ Social media platforms have a lot of potential to be a great research method, especially when looking at first responders in a road safety context.

Thank you for your time.

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