Principlism Guided Responsible Data Curation

Jerone T. A. Andrews Sony AI, Tokyo

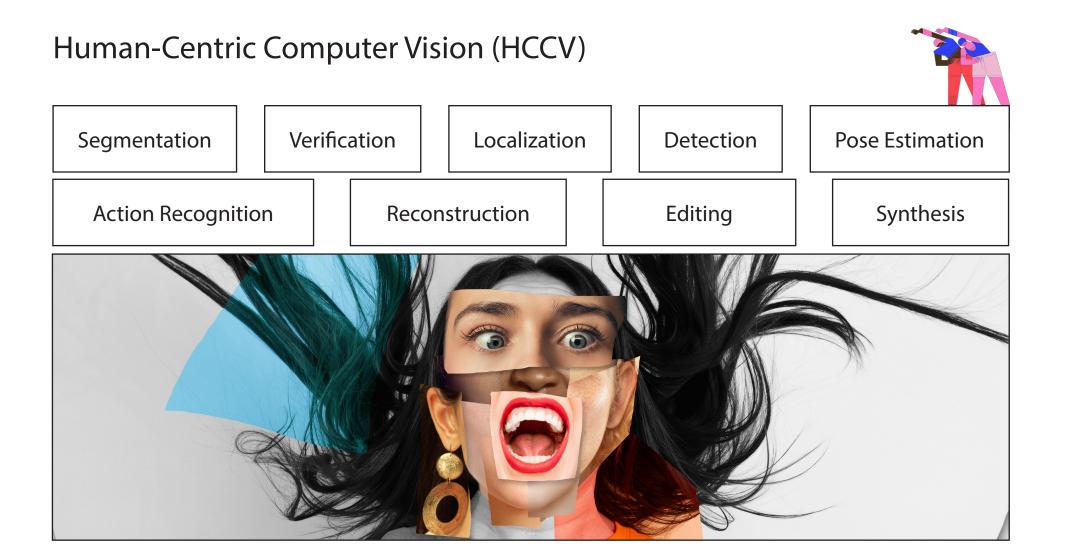
William Thong Dora Zhao Sony AI, New York Sony AI, Zurich

Apostolos Modas Sony AI, Zurich

Orestis Papakyriakopoulos Sony AI, Zurich

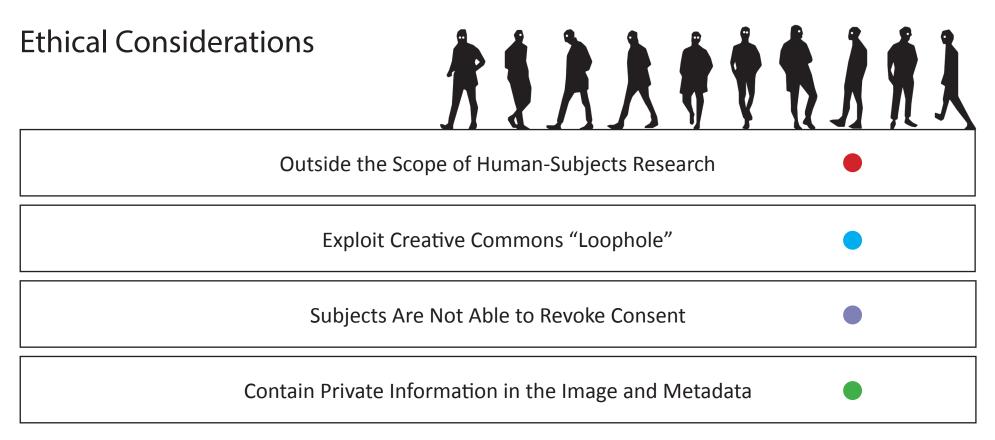
Alice Xiang Sony AI, Seattle Sony Al

Motivation



Problematic Data Curation Practices

4 Consent and Privacy



Practical Recommendations

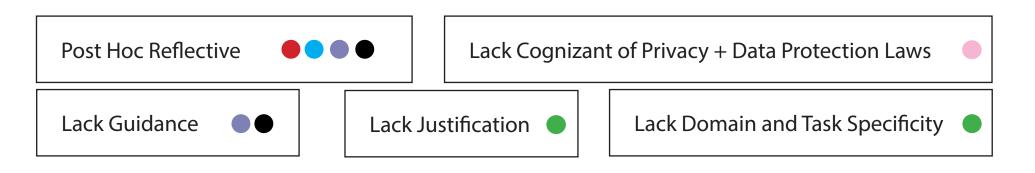
Obtain Voluntary Informed Consent from Data Subjects

Privacy							
Bias	Dataset Retractions	Spurious Correlations	Unfair Models				
Nonconsensual Data Subjects Regarded as Free Raw Material							
Lack Gr	ound-Truth Metadata Required	d for Fairness and Robustness E	valuations				

Efforts Addressing Privacy and Bias Issues

Dataset Documentation	Ethical / Societal Impact Statements 🧲			Dataset Audits ●	
General-Purpose Al Guidelines ●		Bias Detection Tools Priv		rivac	cy Methodologies 🛑

Shortcomings of Existing Efforts



Contributions 2

Provide an Ante Hoc Reflective Perspective Guided by Principlism						
Autonomy	Beneficence	Nonmaleficence	Justice			
Offer Ethical Considerations + Practical Recommendations						
Purpose	Consent and F	Consent and Privacy Diversity				
Develop a Domain-Specific Resource for Operationalizing Fairness						

Collect Country of Residence Information

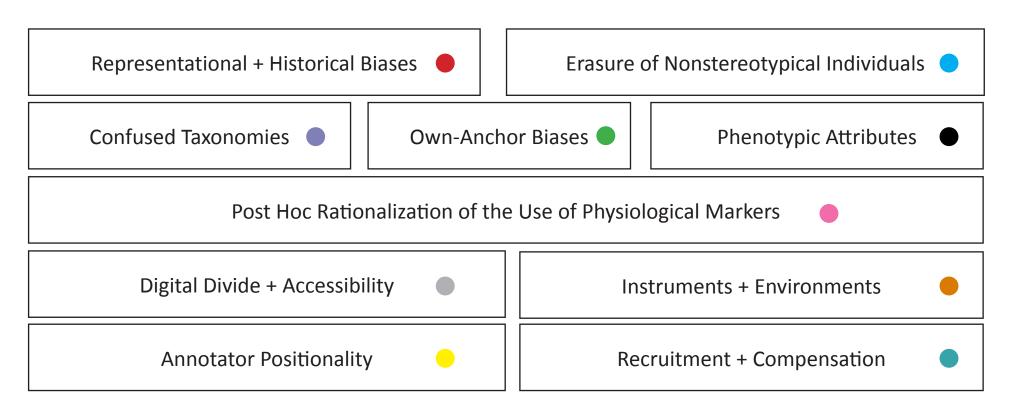
Adopt Appropriate Consent Revocation Mechanisms



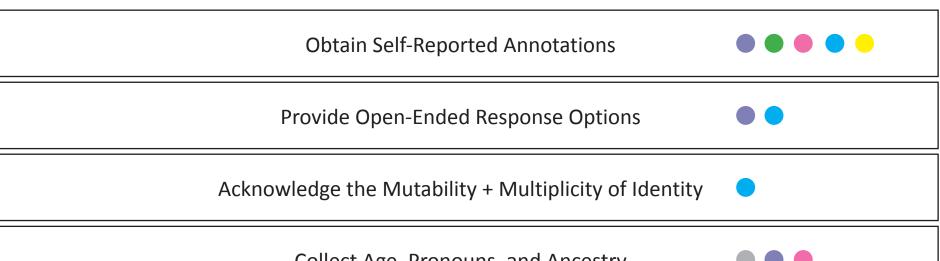
Redact Privacy-Leaking Image Regions and Metadata

Diversity 5

Ethical Considerations



Practical Recommendations



3 Purpose

Ethical Considerations



Fairness-Unaware Datasets Are Inadequate for Measuring Fairness

Fairness-Aware Datasets Are Incompatible With Common HCCV Tasks

Practical Recommendations

Refrain from Repurposing Datasets

Create Purpose Statements Prior to Data Collection



- Collect Aggregate Data for Commonly Ignored Groups
- Collect Phenotypic + Neutral Performative Features



Record Environment + Instrument Information Recontextualize Annotators as Contributors Fair Treatment + Compensation for Contributors

