

## Supplementary

Model	Weights Name
LLaMA 3.2	Llama-3.2-11B-Vision-Instruct
Deepseek-VL	deepseek-vl-7b-chat
LLaVA-1.6	llava-v1.6-mistral-7b-hf
Qwen-VL	Qwen2.5-VL-7B-Instruct
InstructBLIP	instructblip-vicuna-7

Table 1. **Evaluated VLMs** The above VLMs were used in our experiments with their corresponding model id.

<i>Visual Privacy Taxonomy</i>		
Categories	Description	Examples
<b>Biometric Data</b>	Unique physical traits that identify a person	face, fingerprints, audio, iris, gait
<b>Children Images</b>	Content containing children	school events, playgrounds
<b>PII (Personal Identifiable Information)</b>		
-Financial Information	Sensitive financial details captured in images	credit cards, checks, receipts
-HIPAA Data	Protected health information	medical records, prescriptions, health devices, disabilities
-Legal Identifiers	Data directly identifying an individual	names, IDs, passports, addresses
-Digital Identifiers	Identity-linked data from digital platforms	email, phone number, passwords, computer screen content
-Personal Metadata (Demographics)	Demographic or affiliation-related metadata	gender, race, age, beliefs, occupation
-GPS Data	Location metadata identifying position	GPS data, live location
-Vehicle Information	Vehicle-related identifiers linked to individuals	license plates, vehicle ownership
<b>Legal Sensitivity Information</b>		
-Nudity	Content showing partial or full nudity	nudity, explicit content, adult imagery
-Violent/Unlawful Actions	Depictions of unlawful or sensitive activities	criminal acts, weapons, vandalism, cigarettes
<b>Personal Life</b>		
-Personal Context	Elements of personal life or belongings	pets, home interior, family gatherings, personal items
-Location Identifiers	Images revealing specific locations	location photos, landmarks
<b>Background Individuals</b>	Non-subject individuals unintentionally captured	passerby, bystanders, not clearly visible individuals

Table 2. Detailed visualization of the Visual Privacy Taxonomy

<b>Taxonomy</b>	<b>VISPR</b>	<b>PrivacyAlert</b>	<b>DIPA2</b>	<b>VizWiz</b>
<b>Biometric Data</b>	a9_face_complete, a6_hair_color, a3_height_approx, a2_weight_approx, a5_eye_color, a10_face_partial, a11_tattoo, a17_color, a7_fingerprint	eye, tattoo, ungroomed, messy hair, overweight, piercing, unflattering appearance, unsatisfying body, unfashionable, funny looking, strange hair, wig, scary looking, silly, forced smile, unamused face	Person, Finger	Object:Face, Object:Face Reflection
<b>Children Images</b>		children, boy, kids, children in danger		
<b>PII</b>				
-Financial Information	a37_receipt, a30_credit_card	bank account, credit card		Text:Credit Card, Text:Receipt
-HIPAA Data	a41_injury, a39_disability_physical, a43_medicine	abscess, peeling skin, bad teeth, acne, bloody, injury, wound, surgery, peel, pharmacy, emergency, tongue, gummy, throat, lip, infection, pain		Text:Pill Bottle/Box, Object:Pregnancy Test Result
-Legal Identifiers	a21_name_last, a31_passport, a23_birth_city, a78_address_home_complete, a26_handwriting, a35_mail, a75_address_current_partial, a79_address_home_partial, a29_ausweis, a20_name_first, a24_birth_date, a74_address_current_complete, a32_drivers_license, a8_signature, a38_ticket, a19_name_full, a33_student_id	home address, passport, sign	Identity, Printed Material	Text:Business Card
-Digital Identifiers	a92_email_content, a97_online_conversation, a85_username, a90_email, a49_phone	email, username, password, ticket, laptop, browser, computer, internet, railway, flight	Machine, Screen, Electronic Devices	Text:Computer Screen
-Personal Metadata	a16_race, a55_religion, a69_rel_views, a61_opinion_general, a25_nationality, a1_age_approx, a56_sexual_orientation, a18_ethnic_clothing, a27_marital_status, a62_opinion_political, a57_culture, a4_gender, a46_occupation	culture, religion, spiritual, bible, catholic, christian, christianity, church, faith, hinduism, indian, islam, judaism, religious, traditional		Text:Clothing
-GPS Data				
-Vehicle Information	a102_vehicle_ownership, a103_license_plate_complete, a104_license_plate_partial	license plate, automobile	Vehicle Plate	Text:License Plate
<b>Legal Sensitivity Information</b>				
-Nudity	a13_full_nudity, a12_semi_nudity	bare, body, breasts, butt, erotic, naked, nudity, sexual, shirtless, bra, bikini		
-Violent/Unlawful Actions	a99_legal_involvement	damage, guns, war, military, shooting, weapons, corps, battlefield, smoking, alcohol, cigarette, illegal, drugs, arrest, mugshot, marijuana, drug, kills, thief, bomber, smuggler, prisons, robbery	Cigarettes	
<b>Personal Life</b>				
-Personal Context	a60_occasion_personal, a59_sports, a48_occasion_work, a70_education_history, a58_hobbies, a64_rel_personal, a67_rel_competitors, a66_rel_professional, a65_rel_social	family, husband, parents, partner, wife, drunk, hang out, party, music, event, concert	Clothing, Book, Table, Toy, Home interior, Cosmetics, Musical instrument, Accessory, Pet, Food	Text:Book, Text:Letter, Text:Miscellaneous Papers, Text:Newspaper
-Location Identifiers	a82_date_time, a73_landmark	landmark	Place Identifier, Scenery, Photo	Text:Menu, Text:Poster, Text:Street Sign, Object:Framed Photo
<b>Background Individuals</b>				
-Safe	a0_safe	spectator, people		

Table 3. Mapping of datasets to Visual Privacy Taxonomy categories