Table R1: Performance comparison of different DM unlearning methods with different SD models evaluated on UNLEARNCANVAS. Besides the default diffusion model SD v1.5 adopted in this work, an older (SD v1.4) and newer version (SD v2.0) are tested. In case of any confusion, the numbers of SD v1.5 are different from those reported in Tab. 2, as only the first 20 styles and 10 objects in the alphabetic order in UNLEARNCANVAS are tested due to the time limit. All the formats strictly follow Tab. 2.

SD v1.4

Method	Style Unlearning			Object Unlearning		
	UA (↑)	IRA (↑)	CRA (↑)	UA (↑)	IRA (↑)	CRA (↑)
ESD [23]	98.72%	83.35%	93.11%	78.93%	44.13%	46.71%
FMN [28]	75.08%	44.32%	46.32%	45.32%	89.32%	61.17%
UCE [24]	94.82%	43.21%	38.91%	83.35%	36.52%	34.14%
CA [25]	55.23%	84.32%	83.33%	80.32%	48.88%	41.23%
SalUn [27]	81.32%	91.14%	88.11%	89.93%	94.53%	91.91%
SEOT [30]	51.71%	82.26%	73.43%	22.12%	92.13%	73.33%
SPM [26]	54.64%	91.23%	84.23%	62.99%	79.02%	71.83%
EDiff [31]	89.24%	63.26%	94.23%	84.32%	90.11%	51.11%
SHS [32]	91.13%	82.13%	39.82%	88.41%	80.75%	48.30%

SD v1.5

Method	Style Unlearning			Object Unlearning		
	UA (↑)	IRA (↑)	CRA (↑)	UA (↑)	IRA (↑)	CRA (↑)
ESD [23]	96.12%	76.82%	90.43%	88.45%	52.71%	42.17%
FMN [28]	85.95%	54.22%	44.39%	42.68%	88.17%	70.98%
UCE [24]	95.36%	58.13%	45.52%	91.38%	37.21%	32.58%
CA [25]	58.40%	92.55%	88.88%	44.23%	86.79%	78.63%
SalUn [27]	82.58%	86.24%	90.93%	82.47%	91.39%	95.13%
SEOT [30]	54.89%	90.93%	80.32%	20.25%	91.32%	78.67%
SPM [26]	58.32%	88.76%	80.62%	68.10%	86.79%	78.12%
EDiff [31]	88.77%	69.82%	94.62%	82.34%	89.03%	45.13%
SHS [32]	92.35%	76.87%	40.02%	76.45%	77.84%	64.15%

SD v2.0

Method	Style Unlearning			Object Unlearning		
	UA (↑)	IRA (↑)	CRA (↑)	UA (↑)	IRA (↑)	CRA (↑)
ESD [23]	93.32%	75.84%	72.43%	84.31%	60.56%	56.32%
FMN [28]	72.33%	41.45%	39.42%	39.93%	71.48%	61.92%
UCE [24]	83.44%	47.13%	42.41%	91.32%	21.11%	31.09%
CA [25]	41.32%	79.32%	72.32%	49.32%	92.41%	84.36%
SalUn [27]	71.32%	91.42%	84.21%	90.42%	94.11%	97.92%
SEOT [30]	57.63%	81.58%	74.91%	41.25%	91.24%	77.76%
SPM [26]	71.11%	82.34%	79.01%	63.17%	89.65%	90.12%
EDiff [31]	88.65%	74.32%	77.79%	81.22%	91.30%	44.32%
SHS [32]	91.31%	74.50%	32.11%	85.34%	71.43%	31.39%

Table R2: Performance comparison of more DM unlearning methods evaluated on UNLEARNCANVAS extended from Tab. 2. A new method MACE [97] is added and tested. The statistics of other methods are from Tab. 2.

Method	Effectiveness							Efficiency		
	Style Unlearning			Object Unlearning			FID (↓)	Time (s) (↓)	Memory (GB) (↓)	Storage (GB) (↓)
	UA (↑)	IRA (↑)	CRA (↑)	UA (↑)	IRA (↑)	CRA (↑)				
ESD [23]	98.58%	80.97%	93.96%	92.15%	55.78%	44.23%	65.55	6163	17.8	4.3
FMN [28]	88.48%	56.77%	46.60%	45.64%	90.63%	73.46%	131.37	350	17.9	4.2
UCE [24]	98.40%	60.22%	47.71%	94.31%	39.35%	34.67%	182.01	434	5.1	1.7
CA [25]	60.82%	96.01%	92.70%	46.67%	90.11%	81.97%	54.21	734	10.1	4.2
SalUn [27]	86.26%	90.39%	95.08%	86.91%	96.35%	99.59%	61.05	667	30.8	4.0
SEOT [30]	56.90%	94.68%	84.31%	23.25%	95.57%	82.71%	62.38	95	7.34	0.0
SPM [26]	60.94%	92.39%	84.33%	71.25%	90.79%	81.65%	59.79	29700	6.9	0.0
EDiff [31]	92.42%	73.91%	98.93%	86.67%	94.03%	48.48%	81.42	1567	27.8	4.0
SHS [32]	95.84%	80.42%	43.27%	80.73%	81.15%	67.99%	119.34	1223	31.2	4.0
MACE [97]	93.51%	73.22%	62.11%	89.32%	83.25%	57.42%	184.42	712	7.8	0.4

Table R3: Performance comparison of different DM unlearning methods when evaluated with different classification models, i.e., ViT-Large-based and ResNet-101-based model. Both models are pretrained on ImageNet-21k and then finetuned on UNLEARNCANVAS as style or object-classifier respectively.

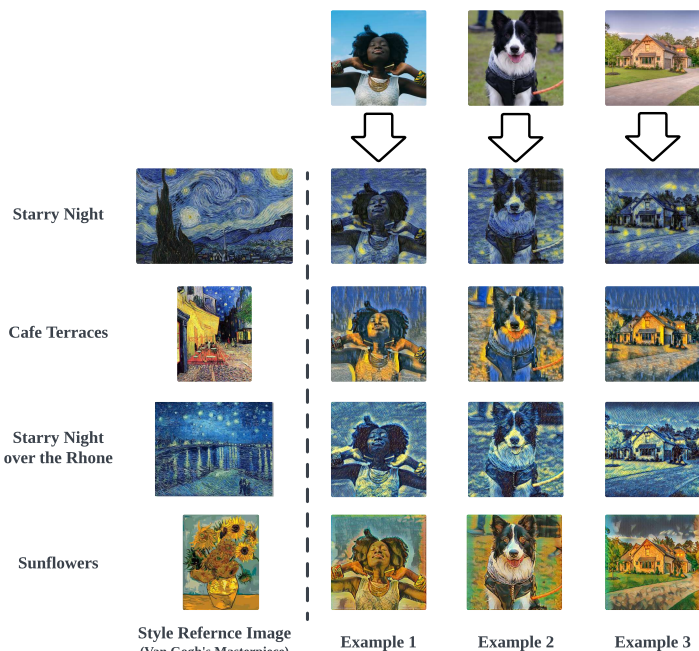| Method	Style/Object Classifier: ViT-Large						Style/Object Classifier: ResNet-101					
	Style Unlearning			Object Unlearning			Style Unlearning			Object Unlearning		
	UA (↑)	IRA (↑)	CRA (↑)	UA (↑)	IRA (↑)	CRA (↑)	UA (↑)	IRA (↑)	CRA (↑)	UA (↑)	IRA (↑)	CRA (↑)
ESD [23]	98.58%	80.97%	93.96%	92.15%	55.78%	44.23%	97.89%	80.14%	93.32%	91.48%	56.14%	44.67%
FMN [28]	88.48%	56.77%	46.60%	45.64%	90.63%	73.46%	87.95%	57.43%	45.96%	46.33%	91.32%	73.12%
UCE [24]	98.40%	60.22%	47.71%	94.31%	39.35%	34.67%	98.93%	59.61%	47.16%	93.64%	39.97%	34.01%
CA [25]	60.82%	96.01%	92.70%	46.67%	90.11%	81.97%	60.37%	95.48%	91.91%	47.45%	89.61%	82.44%
SalUn [27]	86.26%	90.39%	95.08%	86.91%	96.35%	99.59%	86.79%	90.01%	94.67%	87.42%	97.28%	99.14%
SEOT [30]	56.90%	94.68%	84.31%	23.25%	95.57%	82.71%	57.33%	94.07%	83.46%	23.78%	94.87%	82.39%
SPM [26]	60.94%	92.39%	84.33%	71.25%	90.79%	81.65%	61.35%	92.91%	83.92%	70.57%	90.31%	82.09%
EDiff [31]	92.42%	73.91%	98.93%	86.67%	94.03%	48.48%	91.85%	73.24%	99.82%	85.87%	93.47%	47.96%
SHS [32]	95.84%	80.42%	43.27%	80.73%	81.15%	67.99%	95.12%	79.71%	42.63%	79.92%	80.73%	68.81%

Figure R1: An illustration of different types of 'Van Gogh' styles rendered by Fotor [11] based on different style reference images (i.e., different Van Gogh's original master pieces). The type 'Sunflowers' exhibits low stylistic similarity compared to the other three types.

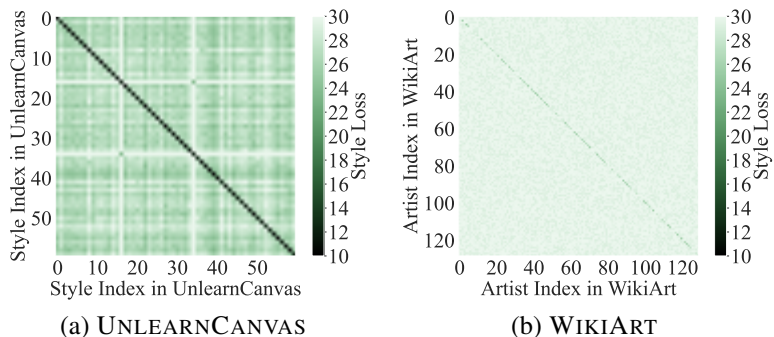
(a) UNLEARNCANVAS   (b) WIKIART

Figure R2: Stylistic loss comparison among the (a) styles in UNLEARN-CANVAS and (b) artists in WIKIART. For each style/artist pair, the average style loss is calculated over all the image pairs following [86]. The value in each cell represent the level of stylistic distinctiveness between two styles/artists with the corresponding indices. A lower value represent higher stylistic similarity and lower distinctiveness.

Table R4: Ranking comparison of different DM unlearning methods in this work. The harmonic mean for each metric of the ranks in each metrics is calculated and used as the score for final ranking. The performance in each metric are sourced and summarized from Tab. 2, Fig 6, Tab. 3, and Tab. A5. The rankings are consistent with those reported in Fig. 1. A smaller harmonic mean indicates a better overall performance. The top method in each column is highlighted in **bold**.

Methods	UA	IRA	CRA	FID	Rob.	FU	FR	SU	SR	Harmonic Mean	Final Rank
ESD	2	8	6	5	**1**	**1**	8	6	6	2.61	2
FMN	6	7	7	8	4	7	2	4	5	4.69	8
UCE	**1**	9	9	9	5	2	9	**1**	8	2.75	4
CA	8	3	2	**1**	8	5	4	8	4	3.09	5
SalUn	5	2	**1**	3	3	8	**1**	7	2	**2.18**	**1**
SEOT	9	**1**	3	4	9	9	3	9	**1**	2.68	3
SPM	7	4	4	2	7	6	5	2	7	3.92	7
EDiff	3	5	5	6	2	3	7	3	9	3.88	6
SHS	4	6	8	7	6	4	6	5	3	4.99	9