MORE EXPERIMENT RESULTS ON EFFACE

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1. MORE EXPERIMENT RESULTS

Datasets, Models, and Federated Frameworks. We test on 5 datasets in image classification: MNIST, Fashion-MNIST, SVHN, CIFAR-10 and CIFAR-100 [1, 2, 3, 4]. We set 50 clients to smaller datasets (MNIST and Fashion-MNIST), and 50 clients to the others for scalability evaluation across client count and dataset complexity. We use CNN with 2 convolutional and 2 fully connected layers for MNIST and Fashion-MNIST, ResNet-18 for SVHN and CIFAR-10, and ResNet-34 for CIFAR-100 [5]. We adpot non-i.i.d. partition following the Dirichlet distribution with $\alpha = 0.5$.

Table 1. Unlearning performance on MNIST.

Methods	CA (↑)	BA (↓)	ET (↓)	CC (↓)
FedRetrain	99.03(0.10)	0.22(0.05)	2064.00	7893.45
FedGD	99.07(0.08)	99.81(0.02)	2064.41	7893.45
FedGA	86.54(1.01)	2.22(1.42)	**154.83**	1381.35
FedPSGA	96.45(0.75)	2.74(1.18)	173.16	1223.39
FedGB	98.30(0.26)	1.60(0.75)	543.71	4999.18
FedUOSC	98.29(0.26)	1.60(0.75)	552.17	2499.59
NoT	98.20(0.14)	**0.60**(0.07)	2057.31	7893.45
FedRL	**98.83**(0.04)	0.86(0.49)	675.36	5709.43
EFFACE	98.41(0.22)	1.16(0.85)	452.96	**78.98**

Table 2. Unlearning performance on Fashion-MNIST.

Methods	CA (↑)	BA (↓)	ET (↓)	CC (↓)
FedRetrain	91.72(0.12)	1.65(0.16)	2062.94	7893.45
FedGD	91.60(0.17)	96.50(0.05)	2052.01	7893.45
FedGA	77.50(0.70)	0.57(0.84)	**110.25**	1184.02
FedPSGA	86.73(0.61)	6.36(1.28)	125.82	1223.39
FedGB	89.89(0.13)	2.31(1.69)	208.50	1933.89
FedUOSC	89.94(0.30)	2.50(1.99)	209.39	966.95
NoT	88.61(0.52)	17.85(5.20)	2063.69	7893.45
FedRL	**91.47**(0.20)	**0.13**(0.02)	810.05	2682.79
EFFACE	90.39(0.14)	2.07(1.82)	807.74	**79.02**

Table 3. Unlearning performance on SVHN.

Methods	CA (↑)	BA (↓)	ET (↓)	CC (↓)
FedRetrain	96.25(0.08)	0.41(0.06)	6920.31	85250.56
FedGD	96.40(0.08)	99.00(0.15)	6837.16	34100.23
FedGA	94.52(0.68)	1.63(0.33)	324.36	12787.58
FedPSGA	95.78(0.31)	1.88(0.58)	345.72	10656.33
FedGB	96.26(0.10)	0.10(0.08)	271.89	9235.48
FedUOSC	96.08(0.41)	0.76(0.90)	**270.88**	4617.74
NoT	95.92(0.05)	2.31(3.14)	6853.64	34100.23
FedRL	95.22(0.35)	**0.01**(0.01)	953.34	9362.75
EFFACE	**96.36**(0.04)	0.13(0.02)	585.78	**425.92**

Table 4. Unlearning performance on CIFAR-10.

Methods	CA (↑)	BA (↓)	ET (↓)	CC (↓)
FedRetrain	92.44(0.24)	0.59(0.11)	4759.63	85250.56
FedGD	92.15(0.08)	96.23(0.19)	4827.12	85250.56
FedGA	90.24(0.05)	0.09(0.07)	138.14	12787.58
FedPSGA	90.96(0.27)	0.41(0.28)	144.32	10656.33
FedGB	91.54(0.15)	1.01(0.46)	**131.06**	9377.56
FedUOSC	91.72(0.17)	0.63(0.41)	133.68	4688.78
NoT	89.12(0.21)	21.87(21.37)	4834.32	85250.56
FedRL	91.54(1.39)	**0.06**(0.02)	440.63	9625.28
EFFACE	**91.75**(0.36)	0.36(0.03)	400.16	**426.25**

Table 5. Unlearning performance on CIFAR-100.

Methods	CA (↑)	BA (↓)	ET (↓)	CC (↓)
FedRetrain	73.20(0.45)	0.19(0.02)	7631.58	162721.95
FedGD	73.08(0.03)	92.08(0.47)	7562.71	162721.95
FedGA	72.57(0.10)	0.05(0.02)	**177.98**	24408.29
FedPSGA	72.94(0.07)	1.79(0.45)	184.66	20340.24
FedGB	73.02(0.05)	0.14(0.13)	180.02	19526.63
FedUOSC	72.99(0.09)	0.26(0.31)	180.09	9763.32
NoT	67.25(0.52)	29.24(24.42)	7648.41	162721.95
FedRL	72.50(0.42)	**0.04**(0.01)	579.76	19660.93
EFFACE	**73.05**(0.11)	0.12(0.06)	190.33	**813.61**

2. REFERENCES

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