

Generative Feature Replay for Class-incremental Learning

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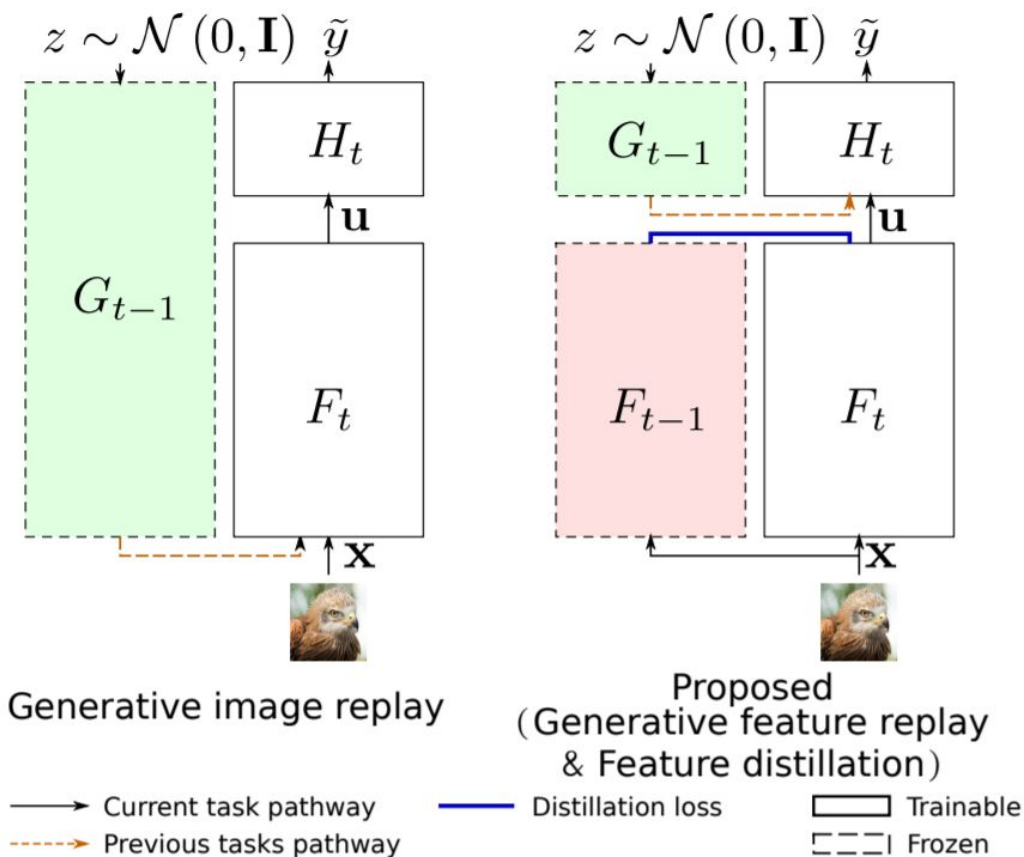
1. Computer Vision Center, Autonomous University of Barcelona, Spain
2. Media Integration and Communication Center, University of Florence, Italy
3. Huawei Kirin Solution, China



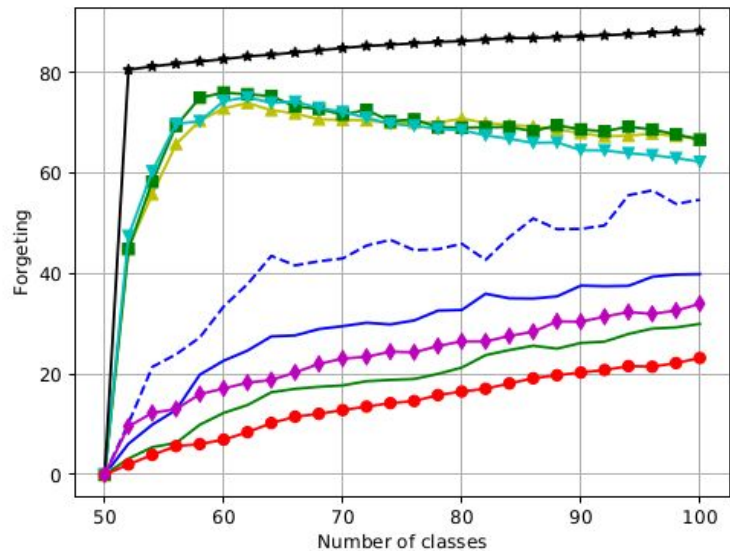
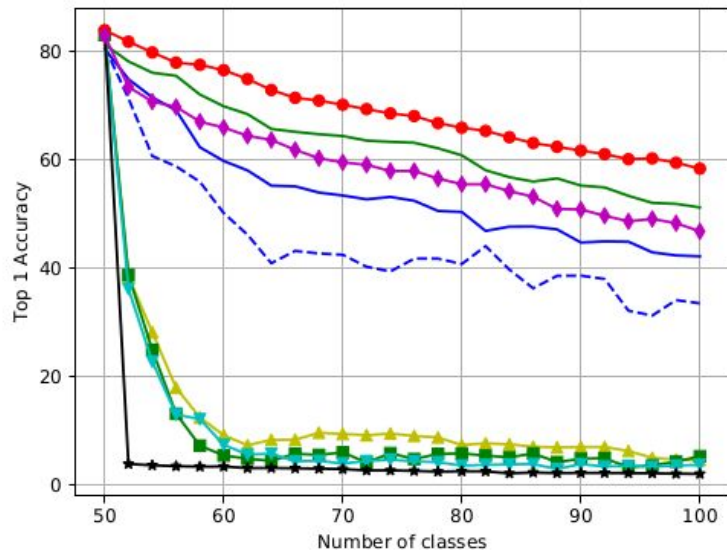
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Generative Feature Replay

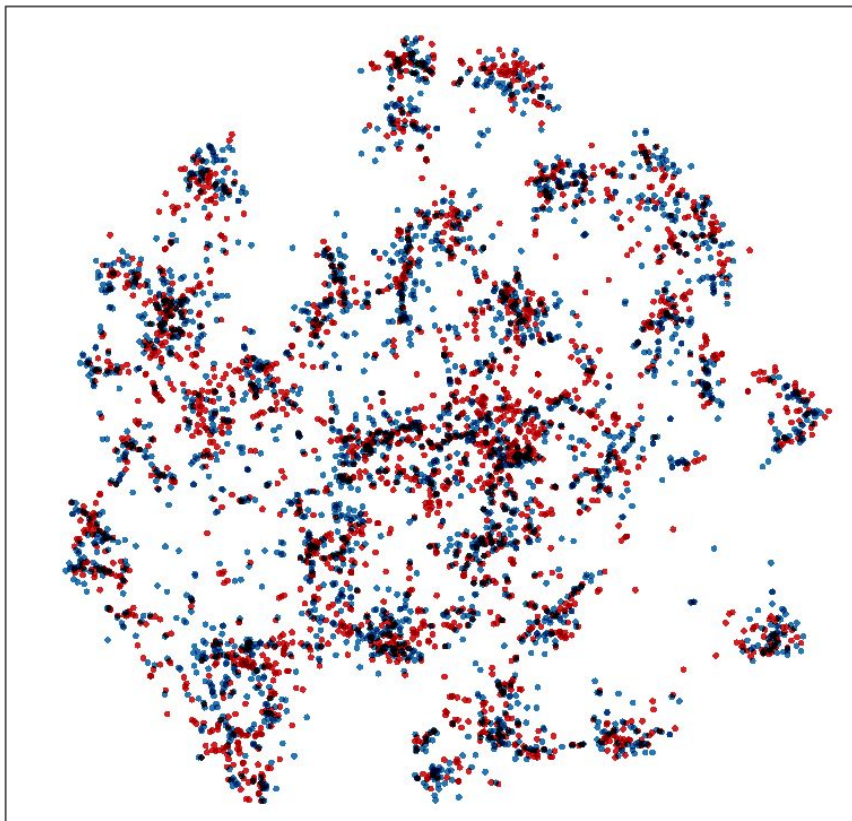


Experiments on ImageNet-100



Dataset	Image size	Exemplars stored	Memory used	Ours
ImageNet-100	256x256x3	2,000	1.5 Gbytes	4.4 Mbytes

T-SNE visualization on ImageNet-100



- ★ Real features (Red)
- ★ Generated features (Blue)

Conclusions

We propose *generative feature replay* for continual learning. Our method:

- is computationally efficient and scalable to large datasets
- outperforms other methods without exemplars by a large margin.

Thanks for your attention!

[Code is available.](#)