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DisenDiff

- □□□□□Attention Calibration for Disentangled Text-to-Image Personalization
- □□□□□https://arxiv.org/abs/2403.18551
- CVPR 2024

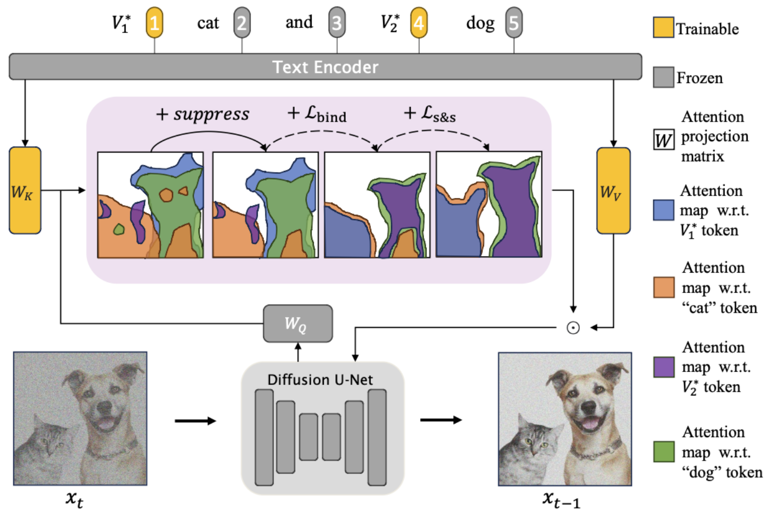

Figure 3. **Method overview.** Our method applies constraints to the cross-attention maps of crucial tokens, ensuring the accurate representation of multiple concepts. We introduce new modifiers, denoted as V_i^*, along with the i-th class name, to represent the i-th personalized concept. Our attention calibration mechanism mainly includes three parts: the suppression technique performs self-sharpening and filters noisy small patches, the $\mathcal{L}_{\text{bind}}$ loss steers new modifiers towards the corresponding classes, and the $\mathcal{L}_{\text{s\&s}}$ loss guarantees the independence and completeness of the learned concepts.

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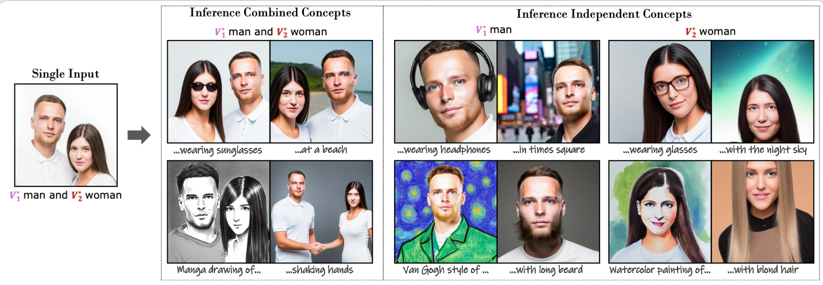

Figure 1. Given one *individual* image from specific users, our proposed method is capable of producing *customized* images for each concept contained in the input image, *e.g.*, given a single input image with a man and a woman, our method excels in achieving innovative renditions of both combined (*left*) and independent (*right*) concepts, without compromising the fidelity and identity preservation, and more importantly, manifesting satisfactory interactive generation conditioned by various text prompts. Note that we employ notation V_i^* to denote the modifier of the i-th concept. Our code and data will be publicly available at: https://github.com/Monalissaa/DisenDiff.

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- □□□https://github.com/Monalissaa/DisenDiff

Newer Older

2024-12-03
PersonalizedResidual

2024-11-14
CrossInitialization