$f(x)$ Reference: y $f(x)$ $x^\star$

$\mathcal{L}(f(x), y)$ $\mathcal{L}(f(x), y)$ $d(x, x_{\tau_{text}})$

Painting Function $f(.)$ $\mathcal{S}_{\tau_{text}}$ x_τ

$$x^\star = \mathrm{argmin}_x \; \mathcal{L}(f(x), y)$$
$$s.t. \quad x \in \mathcal{S}_{\tau_{text}}$$

Painting Function $f(.)$

$$x^\star = \mathrm{argmin}_x \; \mathcal{L}(f(x), y) + \gamma \; d(x, x_{\tau_{text}})$$

$x^\star$ x_{t_0} x_t Output Image

$\mathcal{S}_{\tau_{text}}$ $x^\star$

Forward Diffusion

$\cdots$

(a) Constrained Optimization Formulation   *(b) Obtaining an Approximate Solution*