

# Reconstructing Template-Memorized Images from Natural Prompts

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# Template-Memorized Images

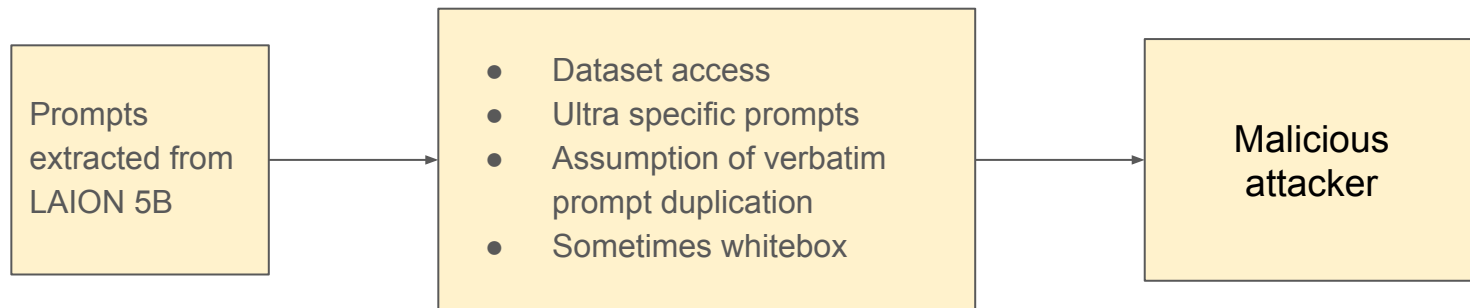


Source

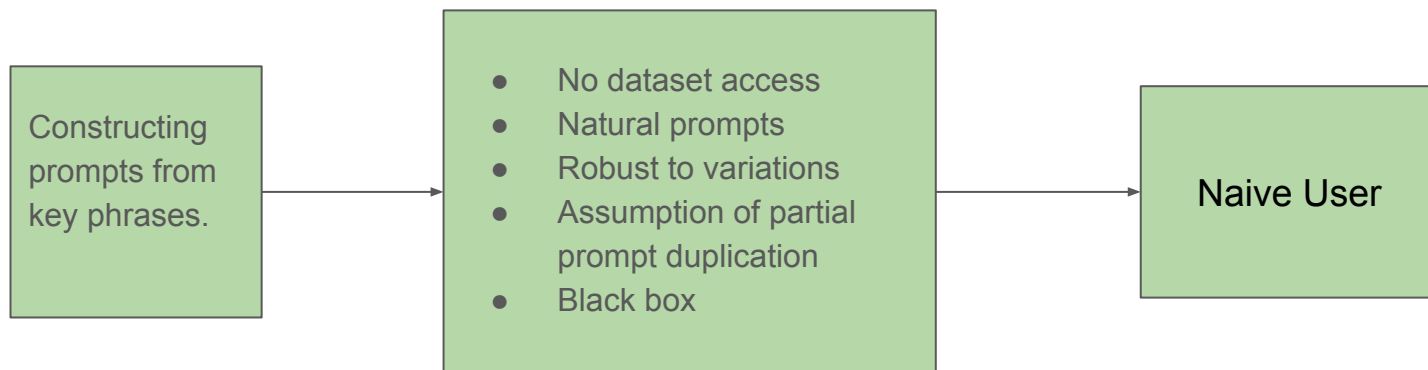


TMI (generated)

## Previous Works



## Our Work





Left - generated by SD 1.4 using the prompt “Walter White Wall Mural” taken from DiffusionDB, Right- “Dear Clementine- Oranges on white Wall Mural” by Crystal W Design on Society6

# Results

108 collocations tested, 43 returned TMI, 67 image templates identified. Many-to-many structure.

## Many-to-Many

(“Floral” +) “Throw Pillow” / “Decorative Cushion” /  
“Pillow Sham”



## Real people



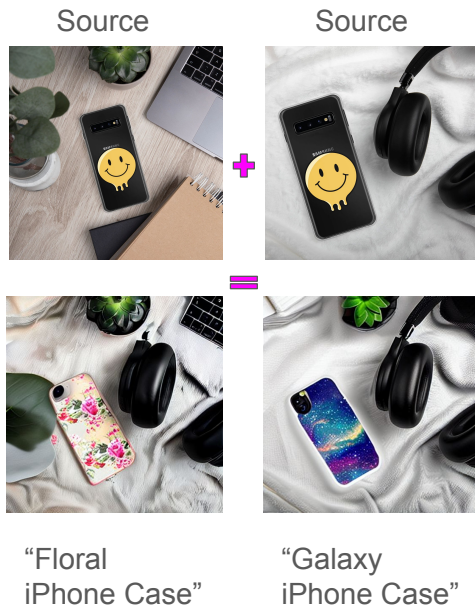
“blue Unisex T-Shirt”

## SOTA

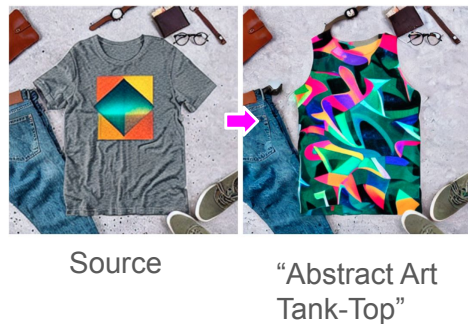


# Observed Phenomena

## Interpolated Reconstructions



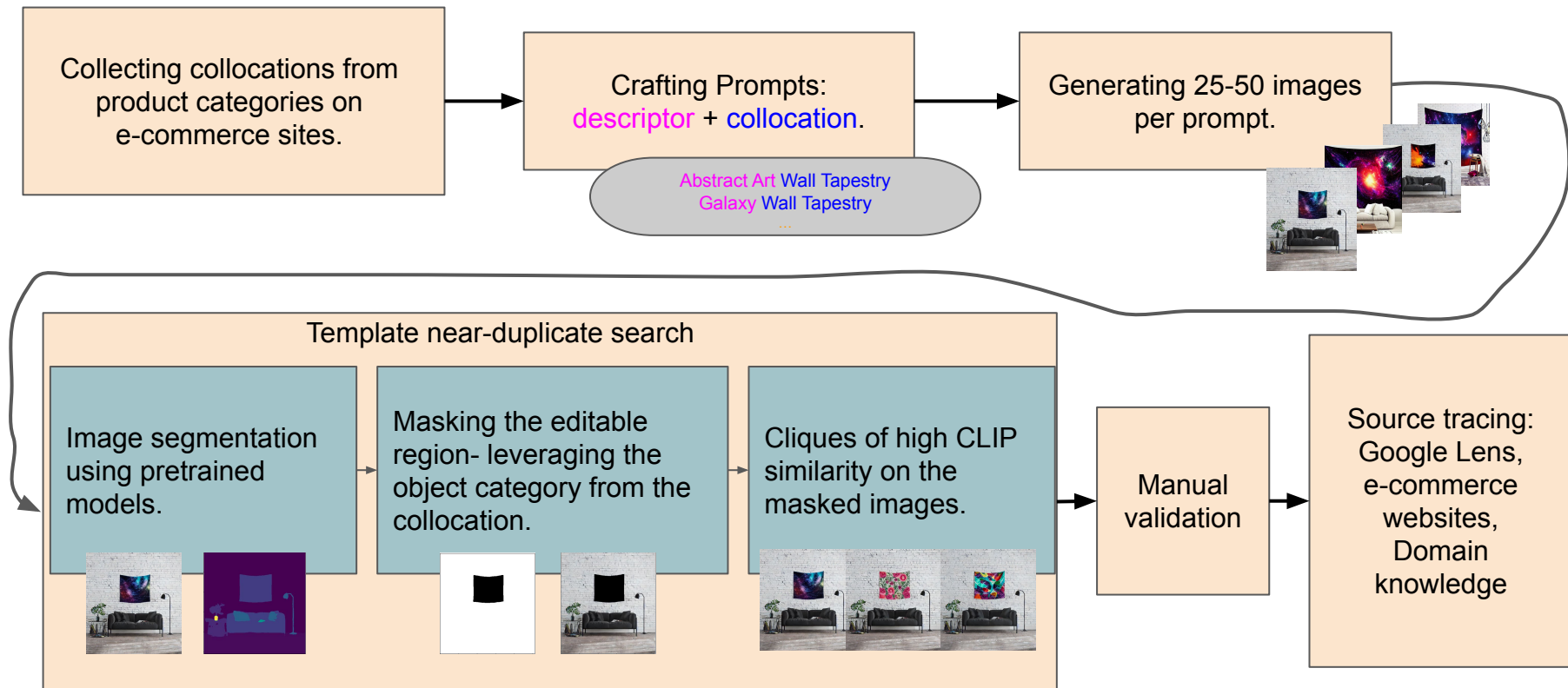
## Template leakage



## Perturbations



# Our Attack- Stages



Different Shirt

Same Background



A Fox in the Wild... Classic T-Shirt



Dogtor Classic T-Shirt



Blazing Fox Tree Classic T-Shirt

Different Descriptors

“Classic T-Shirt”

<https://thesoly.github.io/lr-tmi/>