RE-IMAGINING URBAN SPACES WITH DALL-E 2 AI

A Visual Rhetoric Prompt Book for City Planners, Designers, Developers, and Citizen Activists









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Images by: Jamie Littlefield in collaboration with DALL-E

CONTENTS

3	How to Use This Book
4	DALL-E 2 Basics
5	Step-by-Step Guide to Uploading & Editing City Photos with DALL-E 2
8	Quick Tips for Using DALL-E 2 to Re-Imagine Urban Spaces
10	The Prompts
17	More Examples
24	Resources
26	Call for Contributions to Volume II.

HOW TO USE THIS BOOK

I made this short prompt book to help city planners, designers, developers, and citizen activists learn how to use the <u>DALL-E Al image-generation tool</u> to reimagine urban spaces.

I find DALL-E 2 to be a useful tool for creating images that help me visualize how places in my own community might look in different futures. It was so much fun (and productive at generating discussion) that I wanted to share what I learned. What would that empty lot look like if it were a mid-rise condo complex? A retail development? A public park? By uploading your city photos to DALL-E 2 and experimenting with the prompts in this book, you can find out.

ABOUT THE AUTHOR

I'm Jamie, a writer & researcher interested in the rhetoric of urban planning and the ways language influences the built environment. I'm looking to build a community of urbanists, planners, and rhetoricians who share my excitement for words and cities. I'd love to connect on twitter: @writingjamie.

ABOUT THE IMAGES

The images in this book are not real. They were either: generated from DALL-E 2 in response to my language prompts OR generated from DALL-E 2 using a photograph I took in combination with a language prompt.

DALL-E 2 BASICS

WHAT IS DALL-E 2?

DALL-E 2 is an image creation tool from OpenAI. It uses artificial intelligence to generate images based on text prompts provided by a user. It can also add content or edit existing images (like photographs) uploaded by users. Researchers trained DALL-E 2 by exposing it to millions of online images paired with text descriptions. DALL-E 2 uses its knowledge to predict what kind of content it should generate. Although some of the images DALL-E 2 generates may look similar to existing content, it is not copying or duplicating the content it finds online. DALL-E is generating its own images based on user input.

REQUESTING A DALL-E 2 ACCOUNT

DALL-E 2 is currently in beta testing. As of Aug. 2022, over a million people from the waitlist are being given accounts. Each account comes with free credits to generate images. Credits refill every month. You can request an account on OpenAl's waiting list page.

SHARING DALL-E IMAGES

When you collaborate with DALL-E 2 to create an image (known as a "generation"), you can share it with others in your community. As of today (Aug. 5, 2022), DALL-E's <u>terms of use</u> reads in part: "Subject to your compliance with these terms and our Content Policy, you may use Generations for any legal purpose, including for commercial use. This means you may sell your rights to the Generations you create, incorporate them into works such as books, websites, and presentations, and otherwise commercialize them."

UPLOADING & EDITING CITY PHOTOS WITH DALL-E 2

STEP 1: TAKE A CLEAR PHOTO

Choose an area of your city or neighborhood that you would like to see reimagined in different ways. You'll want to make sure you have good lighting. Zoom out so that you can crop your photo later.



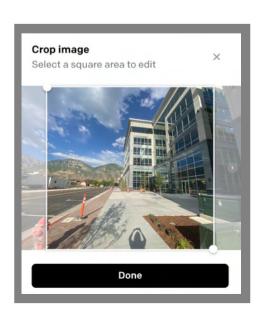
Start with a detailed description Surprise me |An Impressionist oil painting of sunflowers in a surple vase... Generate | Or, upload an image to edit |

STEP 2: CLICK "UPLOAD AN IMAGE"

Log in to your account. From your DALL-E dashboard, click "upload an image." Select the image you want to edit from the file chooser and click "Open."

STEP 3: CROP THE IMAGE

DALL-E will prompt you to select a square of your image to edit. Move the selection box around to choose the area of your image you want to focus on. Then, click "Done."



STEP 4: SELECT "EDIT IMAGE"

Click on the "Edit Image" option to select specific locations and input your own prompts.





STEP 5: ERASE A PART OF YOUR PHOTO

A circle eraser tool will appear on your screen. Click and hold your mouse down, then drag the eraser over the part of the photo you want to re-imagine. This doesn't need to be perfect!

STEP 6: ENTER YOUR TEXT PROMPT

In the text box above your image, enter a short prompt to describe the overall picture you are imagining. Then, click "Generate." You will be presented with four AI-generated image edits. Click on any image to download it, save it to your collection, or make further edits by repeating this process.



NEXT STEPS...

Once you've generated your first four images, you can remix those to create more options. Consider these variations.



"a detailed photograph of a beautiful picnic table"



'a verdant pedestrian promenade with wide bike paths, lots of flowers, bicycles"



a vibrant public plaza with a water fountain, a bike path, and wildflowers"



"stylish bicycle parking"



"a roundabout'



"a promenade with wild flowers and a bicycle lane"



"a chaotic freeway"



"an ugly parking lot"



"a charming bicycle path in Amsterdam"

4 QUICK TIPS FOR USING DALL-E 2 TO RE-IMAGINE URBAN SPACES

1

USE DALL-E TO GENERATE IDEAS NOT TO CREATE FINAL DESIGNS

When it comes to editing existing photography, DALL-E 2 seems better at creativity than specificity. Right now, DALL-E 2 isn't great at creating final drafts of urban photos tailored to a user's directions. It generates photographic renderings that are imperfect and often have unclear details. The most effective way to use DALL-E 2 for urban images is to see it as a tool for *generating ideas* and *inviting discussion*. This kind of project is sometimes called "speculative design" or "discursive design."

Experiment with a wide variety of prompts, share your generated images with community members, and see how these images promote discussion. What do people gravitate towards? What kinds of feelings and ideas do these images provoke? How else might this space be re-imagined? Once you start to build a consensus in a particular direction, ask a professional designer to create more specific renderings. (Don't forget that creating dystopian images of what you DON'T want can also be revealing).

2

EXPERIMENT WITH SHORTER PROMPTS

When editing urban photos using DALL-E 2, it is sometimes more effective to input short prompts with generalized ideas & vibes rather than trying to create a very specific type of rendering. Instead of "a yellow Huffy bicycle on a 12-foot, gray cobblestone path with a NACTO-designed bike lane on the North side" try "quaint cobblestone path, bike lane, in the golden hour."

USE THIS SIMPLE DALL-E 2 PROMPT RECIPE

Some of the most effective prompts include just two elements: objective content and a subjective angle. Objective content can be anything that exists in the material world. For example: a bike lane, a restaurant, a freeway, a public fountain. A subjective angle is a unique way of looking at that object or an overall vibe the photograph captures. For example: an aerial view, a creepy feeling, a nostalgic sentiment, or a wide-angle perspective.

Experiment with the words in the next section to create short prompts that work for your photos. You'll notice there are both objective and subjective suggestions in the prompt guide.





There are a lot of ways you might use AI-generated images to help create better streets & more thoughtful development. Bring a collage of your photo generations to a neighborhood meeting, post your generations to social media, use your generations as a visual aid when speaking to your elected representatives. Don't forget to invite your neighbors to become co-creators. By experimenting and creating images on their own, they may become more excited to join you in the work of creating better places in the physical world.

THE PROMPTS

The pages that follow include dozens of words you can use to put together your own DALL-E 2 prompts.

A prompt is a short phrase that describes what you would like to see generated in the photo. You can divide descriptive words with a comma.

For each prompt, try to choose at least one word describing an objective element (something that exists in the material world) and one word describing a subjective element (a camera style, a vibe, etc.)

DALL-E PROMPTS FOR RE-IMAGINING STREETS

CAR ELEMENTS

vehicle lane, curb, park strip, street, streetscape, wide / narrow lane, traffic light, stop sign, truck route, safe street, dangerous street, highway, freeway, road, neighborhood road, speed bump, speed hump, curb extensions, round about, traffic circle, median, car parking, parking lot, overpass, intersection, onramp, road diet, one-way street



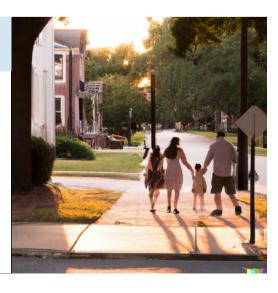
PUBLIC TRANSIT ELEMENTS

buses, rail, public transit, railroad, light rail, bus rapid transit, bus stop / station, public benches, train stop / station, bus lane, bus rapid transit lane, streetcar, trolly, tracks, overhead rail lines, Uber / Lyft / ride share connections, signage, transit maps, ferry, terminals



PEDESTRIAN ELEMENTS

sidewalk, path, multi-use path, promenade, walkers, crosswalk, crossing light, cross guard, school crossing, pedestrian island, pedestrian refuge, pedestrian bridge, pedestrian tunnel, pedestrian underpass, pedestrian crossing light, HAWK light, bollards, traffic calming, rail trail, accessibility, mobility, ramps, ADA, curb cut



BICYCLE ELEMENTS

bicycle lane, multi-use path, separated / protected bicycle lane, sharrows, share-the-road, bikeway, bike parking, bike racks (u-rack, wave rack, bollard, grid rack, artistic rack), covered bicycle parking, bicycle collective, bike lockers, protected intersection, bike box, cycle network, share-the-road, bicycle signage, ramps, bike park



STREET VIBES

downtown, neighborhood, historic, contemporary, suburban, rural, urban, dangerous, safe, walkable, hip, old, new, gentrifying, gentrified, chaotic, calm, charming, quaint, diverse, vibrant, crowded, isolated, lonely, desolate, dystopian, magical, walkable, disorienting, nostalgic, glamorous



STEET ITEMS

public bench, trash can, traffic cone, parking strip, grass, trees, xeriscaping, zeroscaping, public art, sculpture, statue, monument, water fountain, street lights, manhole, bollards, string lights, fencing, street signs, storm drains, signage, sandwich boards



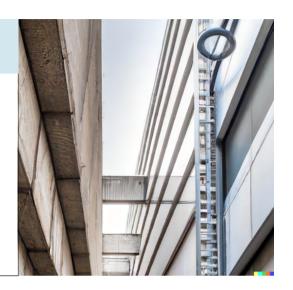
ETC.

When designing streets, don't forget to include the street users! Think about who might be on or in the street and what they might have with them. For example: young girl with a ball, business man carrying briefcase, older man in a wheelchair, dog walker with two puppies.

DALL-E PROMPTS FOR RE-IMAGINING DEVELOPMENTS

ARCHITECTURAL STYLES

classical, neoclassical, contemporary, Greek revival, industrial, bauhaus, victorian, arts and crafts, cape cod, Tudor, art deco, modern / modernist, brutalist, beaux-art, renaissance revival, ranch, cape code, colonial, mediterranean, modern farmhouse, midcentury modern, cottage style, french country style, bungalow style, craftsman, tree house



BUILDING MATERIALS

wood, brick, plaster, steel, iron, rebar, mortar, cobble stone, facade, stone, granite, marble, concrete, plastic, laminate, drywall, cement, bamboo, glass, stained glass, cork, adobe, gravel, plaster, stucco, cinder block, fiberglass, sand, tiles, tar, chipboard, rubber, paint, terracotta, shingles



DEVELOPMENT VIBES

classic, high-end, nostalgic, affordable, colorful, muted, unified, contrasting, feminine, masculine, relaxing, calming, exciting, playful, charming, light, airy, shadowy, hip, rustic, cozy modern, sleek, eco-friendly, opulent, sophisticated, stately, tranquil, secluded, sprawling, expansive, cheery, striking



COMMERCIAL SPACES

retail, offices, hotel, industrial, mixed-use development, sky-scraper, high-rise, mid-rise, restaurant, cafe, outdoor dining, store, shop, bed and breakfast, coffee shop, bar, boutique, spa, salon, co-working space, flower shop, grocery store, downtown, mall, strip mall, big box store, garages, storage centers, medical centers, manufacturing



RESIDENTIAL SPACES

home, single-family home, multi-family home, duplex, triplex, apartment building, condos, townhomes, mobile home, manufactured home, trailer park, RV park, co-ops, cabin, tiny home, carriage house, affordable development, gated community, yurt, accessory dwelling unit (ADU), hotel, motel, homeless shelter



PUBLIC SPACES

school, university, public square, public plaza, promenade, pedestrian plaza, library, city hall, community center, police station, fire station, hospital, park, linear park, public pool, recreation center, public market, church, museum, landmark, monument, children's museum, open space, green space, riverwalk, marina, public parking, transit station



ETC.

One strategy is to look up developments that you love (or hate) online and copy / paste the phrases they use to describe themselves. How does that description look when applied to a different development scene?

NATURE ELEMENTS

trees, flowers, bushes, hedges, landscaping, wildflowers, gardens, community gardens, urban farming, urban forrest, vertical gardens, lawns, river, riverbank, water walk, lake, canal, beach, waterfront, paths, trails, parks, mountains, mesas, plains, desert, grassland, oasis



ECO-FRIENDLY ELEMENTS

eco-friendly, xeric, xeriscaping, solar panels, wind turbines, wind farm, LEED certified, green building, sustainable, green space, permeable pavers, recycling, rainwater collection / recycling, green roofs, car-free zone, biodome, greenhouse, permeable space, earth roof



COPY-CAT PLACES

New York, San Francisco, Los Angeles, Denver, Davis (CA), Missoula, Austin, Dallas, Miami, Minneapolis, Portland, Boston, Washington DC, Chicago, Fort Collins (CO), Albuquerque, Tempe (AZ), Orlando, Anchorage (AK), St. Louis, Atlanta, Las Vegas, Baltimore, Memphis, New Orleans, Paris, London, Buenos Aires, Prague, Kyoto, Barcelona, Berlin, Budapest, Hanoi



ETC.

Try imagining events taking place within your photo generations. Who might use the space? How would they use it? What kind of people would attend? DALL-E 2 can generate strange faces, so the phrase "facing away from the camera" may come in handy.

DALL-E PROMPTS FOR STYLING YOUR PHOTOS

PHOTO PERSPECTIVES

aerial photo, wide-angle, fish-eye, masterplan, forced perspective, eye-level, linear perspective, top view, high view, framed perspective, birds-eye-view, drone view, micro, macro, panorama, pinhole, satellite, tilt shift, telephoto, deep depth-of-field, over-the-shoulder



PHOTO VIBES

dreamy, retro, uncanny, golden hour, blue hour, candid, editorial, fantasy, photojournalistic, seasonal (fall, winter, spring, summer), stock photography, nostalgic, dystopian, nighttime, bright, shadowy, sunrise / set, warm, cozy, soft, crisp, edgy, dreamy, vintage, dramatic, hazy, foggy, patriotic



PHOTO FILTERS / PROCESSING

black-and-white, sepia, amaro, grainy, VISCO, vintage, vignette, faded, art filter, grayscale, polaroid, sparkle / rainbow filter, bokeh effect, pixelated, lens flair, lomography, beauty filter, street photography filter, film, fine art photography, high dynamic range (HDR), long exposure, monochrome, motion blur, high contrast, muted



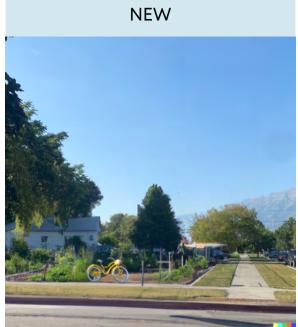
MORE EXAMPLES

While you can use DALL-E 2 to re-imagine any city, I find it most productive to focus on my own community. I try to think of what I might like to see (or not see) in the spaces I use every week as a pedestrian, bicyclist, employee, and involved citizen.

In the next few pages, you'll see some of the ways I've re-imagined the city where I live: Provo, Utah. The original photos are from quick cell phone snaps I take while I'm out and about. Nothing fancy. I hope you'll find some inspiration for creating your own prompts & generating ideas for your own city!

Note: Several of these photos were generated by entering 1-2 prompt terms at a time. This strategy can give you more control over the final outcome.



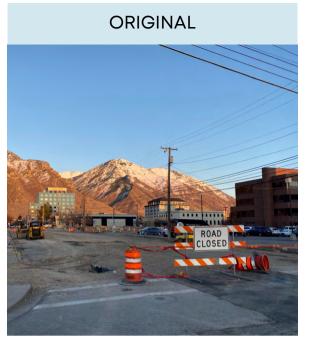


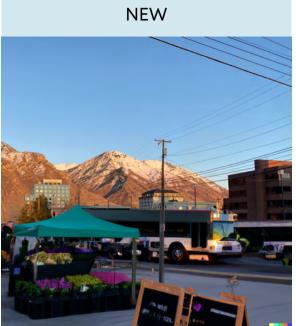
PROMPT a community garden with vegetables, a yellow bicycle, bicycle path





PROMPT dreamy street, Portland, bicyclist





PROMPT farmer's market, golden hour, grassy park, bus



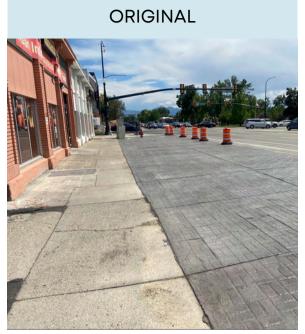






PROMPT

historic downtown streetcar



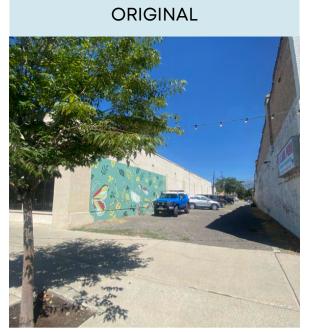


PROMPT big flowers in grassy strip, new brick sidewalk, tomatoes, boy looking away from the camera, awnings



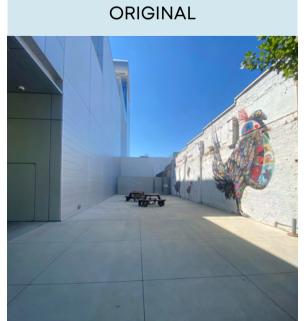


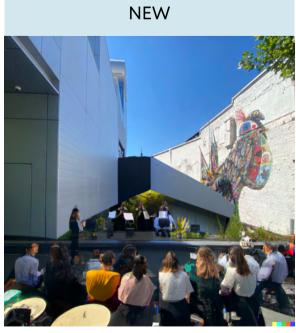
PROMPT ice skating rink in the winter, romantic, woman in a yellow dress facing away from the camera





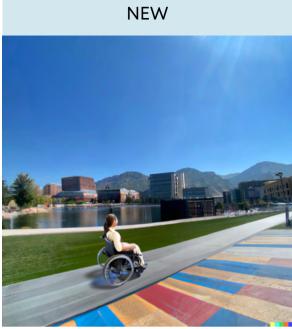
PROMPT
historic apartment building, pedestrian family looking away from the camera, planters with flowers, yellow bench



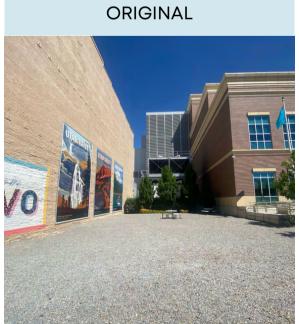


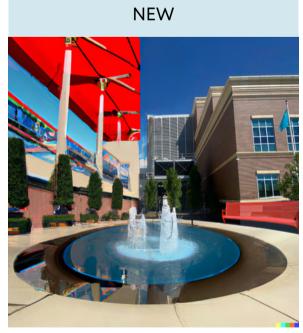
PROMPT outdoor concert, brass band performing





PROMPT dreamy urban lake, housing, woman in wheelchair looking away from the camera





PROMPT modern fountain, red bench, trees, sunshade

VISUAL CASE STUDY: THE EMPTY LOT

There's an empty lot directly across from my house in a very walkable downtown neighborhood. I'm using this series of AI images to help me & my neighbors imagine how it might be redeveloped as something other than a single-family residence. I've been trying to take a "speculative design" approach & have fun with it!



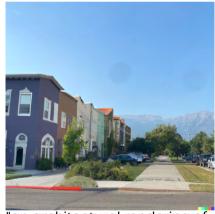
ORIGINAL



"a gazebo with string lights, a water feature, a red bicycle, a red bench"



"neighborhood restaurant and bar offering comfort food, cocktails & draft beer, plus a heated patio"



"an architectural rendering of a vibrant downtown, condos"



"an upscale neighborhood bar with outdoor patio dining, tables, and string lights"



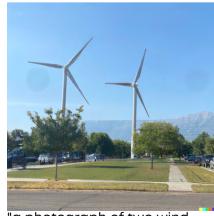
"gas station"



"big band concert in the park"



"a community garden with vegetables, a yellow bicycle, bicycle path"



"a photograph of two wind turbines in an empty field"

RESOURCES

USING DALL-E

There's a growing collection of general DALL-E content creation resources. Some of my favorite include:

The DALL-E 2 Prompt Book from DALL-E Gallery

How DALL-E 2 Actually Works from Ryan O'Connor at AssemblyAl

DALL-E 2 subreddit

OTHER AI IMAGE-GENERATORS

- Craiyon
- WOMBO
- StarryAl
- NightCafe
- <u>Midjourney</u>

SPECULATIVE DESIGN

To learn more about speculative design, take a look at these books. They will leave you full of wild ideas.

Speculative Everything: Design, Fiction, and Social Dreaming (2013). Book by Anthony Dunne & Fiona Raby.

Discursive design: Critical, Speculative, and Alternative Things (2019). Book by Bruce M. Tharp & Stephanie M. Tharp.

SOCIAL ABOUT CITIES

Here are a few of my favorite social accounts with posts about city-building.

- @ShannonMattern
- @PlacemakingX
- @CityLab
- @PPS_Placemaking
- @StreetFilms
- @EBKent
- @PlacesJournal

SOCIAL ABOUT DALL-E & AI

These accounts can be a useful source of inspiration for your DALL-E image-generation.

- @OpenAl
- @BetterStreetsAl
- @GuyP
- @Dalle2Pics
- @CursedDalle2

WORDS BUILD CITIES

I created this little book because I love to think about the ways that words build cities. I'm a writer & researcher interested in the rhetoric of urban planning and the ways language influences the built environment. I'm looking to build a community of urbanists, planners, and rhetoricians who share my excitement for words and cities. I'd love to connect on twitter: owritingjamie.

CALL FOR CONTRIBUTIONS TO VOLUME II.

In the future, I'd like to expand this prompt guide to provide more examples of Al-edited urban photos, tried-and-true prompts, and stories from placemakers using Al to generate discussion in their own communities.

Do you have something you'd like to contribute?

Tag me in your tweet: wordsbuildcities@gmail.com
I'd love to see your work and will credit all future contributors included in the next volume.



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Special thank you to Sterling Beck for being an early reader. And to Dr. Jason Tham and the students in the Technology & Discourse graduate summer session at Texas Tech University. Our discussions about technology helped me see see the potential for this project.