

A	D	D	R	E	S	S	A	B	L	E
S	P	A	C	E						

Nearest Coffee Shop

Ubiquitous Destinations

In an area where multiple locations of the same chain business exist in close proximity to each other, walking in any direction can take you to the same place. Companies take advantage of those circumstances, as evidenced by the Starbucks chain's **clustering** strategy of placing multiple store locations nearby each other to achieve ubiquity

in a particular neighborhood. A conceptual condition of topological folding then occurs in which, for consumers, one building at **address a** becomes equivalent to another building at **address b**.

New navigation systems utilizing that principle could redefine prior expectations in which a map is used to travel to a specific loca-

tion. An alternative system might instead direct you to wherever the nearest location happens to be of a symbolic place which exists in multiple locations. We are already as likely to search a GPS map for a brand name as a street address, but those systems are still derived from maps based on physical addresses rather than brand names.

Cluster Mapping



Locations of the Starbucks retail chain found within a few blocks of each other in downtown San Francisco.

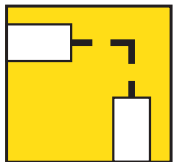
Source: Based on data from a September 2023 Google Maps search.

Everyday Proximity Radar



As you walk past different locations of your favorite coffee shop, the address of the location that happens to be nearest to you may change as you move. It thus becomes a moving target, more suitable for being monitored by an interface like a radar display rather than a static map. New interfaces could inform us of our constantly-changing proximities to different places as we go about our daily lives.





A	D	D	R	E	S	S	A	B	L	E
S	P	A	C	E						

Abbreviated Shortcuts

Inefficient Routes

Suburban streets designed to facilitate the higher speeds of cars relative to walking can accommodate configurations of space containing longer distances in the same amount of travel time which was previously attained by a pedestrian on foot.

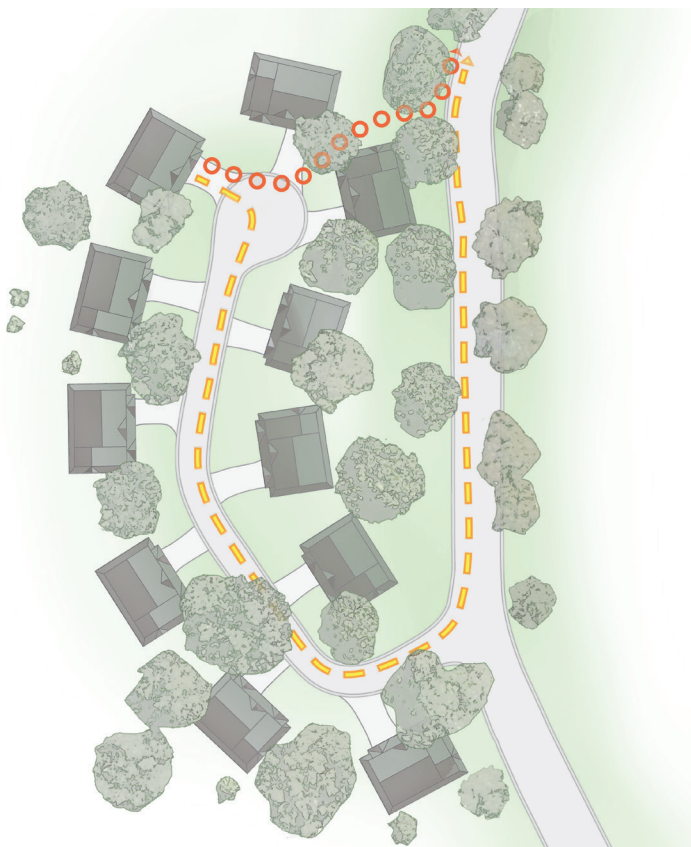
In other words, we might say that physical space can be

topologically folded to contain more distance within the same quantity of temporally-inferred perceived distance; a 30 second car ride takes as much time as a 30 second walk, but the car will travel further. We can design our neighborhoods to have meandering streets which terminate in cul-de-sacs because we have access to modes of travel which

render the greater distances those layouts induce to be irrelevant.

The same principle applies for systems which enable *simultaneous* travel to take place, such as if you saved time by programming a robot to slowly travel to another location on your behalf.

Travel Path Analysis



- Standard travel path**
3 minute pedestrian walk
30 second drive
30 seconds to program a robot that travels the path in 3 minutes
- Alternative non-existent abbreviated path**
30 second pedestrian walk, if there were a path

Since a robot traveling along a path does not directly require time or attention from a human navigator, the efficiency of the robot's route might be considered to be of reduced importance similarly to how it is in a car. In the future, new types of cul-de-sacs could be designed primarily for travel by robots rather than cars or people.

Automated Meandering



Time-lapse photograph of Roomba travel paths through a room, showing how inefficient movement through physical space is acceptable for a robot.

Photo credit: adapted from the "Roomba Art" picture series, IBR Algorithm Group, Braunschweig University of Technology. Licensed under Creative Commons. <https://bit.ly/4aNqJY7>