# From AAA TripTik to Google:
# Maps as Sites of Sociotechnical Change

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From the American Automobile Association's (AAA) TripTik to Google Maps, mapping technology changed tremendously from applying a highlighter on a dozen papers to interactive mobile digital maps. Along with the technological change from analog to digital, the main organization that makes and distributes navigational maps has also changed from a nonprofit automobile organization to a for-profit tech company. This article scrutinizes how these changes in the sociotechnical infrastructure of mapmaking are reflected in the maps we use. First, I explain how AAA's TripTiks were made and distributed in the 20th century and compare it with the operation of Google Maps. Next, I follow the route from Los Angeles, California, to Battle Creek, Michigan, on a 1949 TripTik and on Google Maps, attending to their differences. This journey reveals that despite the convenience and advanced technology, Google Maps deliberately ignores the core value of AAA's maps: making a trip an enjoyable process of learning.

*Keywords: American Automobile Association (AAA), TripTik, Google Maps, sociotechnical change, data and algorithms, platforms*

In 1949, Mr. Carl B. Swisher wanted to drive from Los Angeles, California, to Battle Creek, Michigan. If he had lived in the 21st century, Google Maps could have instantly helped him plan his journey: It takes about 33 hours to drive the 2,200 miles. As this was long before the dawn of the Internet, once he decided to do the road trip, Mr. Swisher reached out to his local American Automobile Association (AAA) club for planning help. On June 16, 1949, C. Exley, who worked for AAA, generated a personalized itinerary for Mr. Swisher. Exley stapled 17 pages of strip maps into a booklet called the "TripTik." An orange highlighter marked the 2,496 miles Mr. Swisher should take, while brief explanations of the routes appeared on the right side of the maps. Hotels and motels on the way were listed on the backs of the maps, for instance, "Elite Motel, n. End on Colo. 138, 10 units, 8 baths, $2-$2.50" (AAA, 1949).
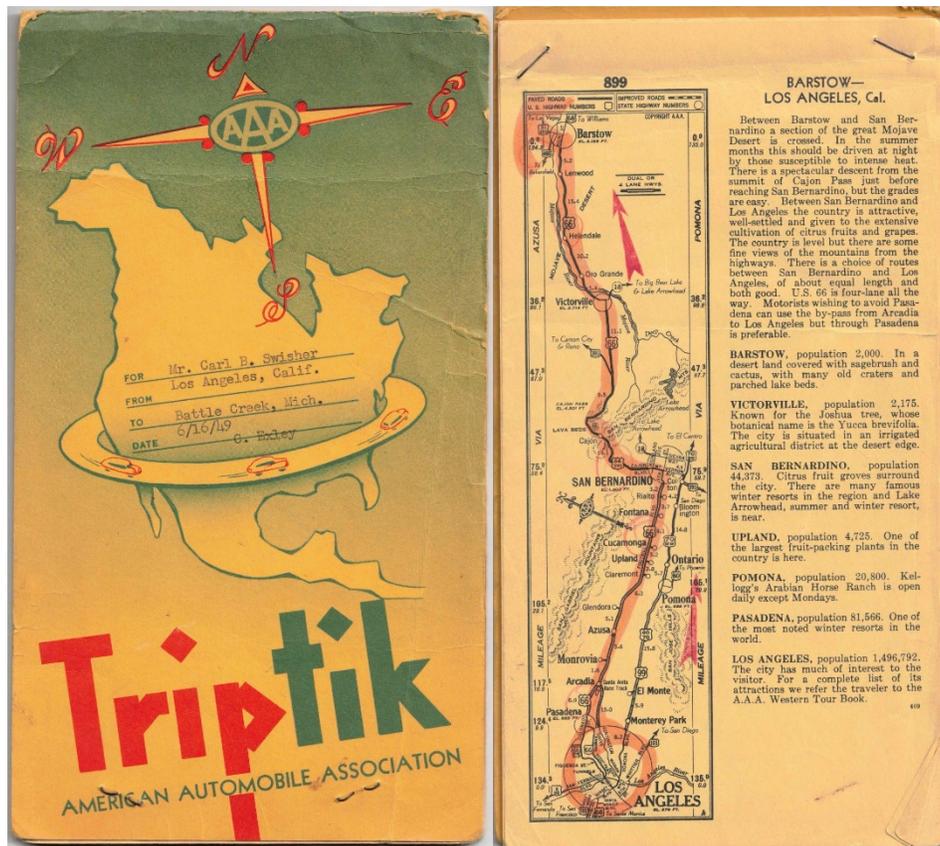
*Figure 1. 1949 TripTik from Los Angeles to Battle Creek (AAA, 1949).*

Mr. Swisher's TripTik travels through Barstow, California; Salt Lake City, Utah; Denver, Colorado; Omaha, Nebraska; Des Moines, Iowa; and Chicago, Illinois, to finally reach Battle Creek, Michigan. This passage is almost identical to the "best route" recommended by Google Maps. Although the mapping technology changed tremendously, instructions on how to get from Los Angeles to Battle Creek have not changed much. What has changed, however, are the assumptions and agendas that are hidden behind the spatial representations of maps that enable and abridge possibilities for people to act (Crampton, 2001). According to Harley (1989), social relations permeate maps, and while they do not stop travelers from getting from point A to point B, there is a "second text" within the map (p. 9). Power structures in this second text are not only representations of social relations but instruments of establishing worldviews and sovereignty.

This article examines AAA's TripTik and Google Maps to reveal the hidden assumptions and agendas of the two maps. To do so, I first illustrate how the sociotechnical infrastructure of directional maps has changed in North America, and then follow Mr. Swisher's journey from Los Angeles to Battle Creek on the two maps. Along with the advancement of mapmaking technology from analog to digital, the main organization that makes and distributes maps has changed from a nonprofit automobile organization

to a for-profit tech platform. These changes in the sociotechnical infrastructure of mapmaking are reflected in each of the maps and influence the way we build relationships with our surroundings.

**From AAA TripTik to Google Maps**

TripTik is the American Automobile Association's travel planning service providing an individualized route map for a specified journey. The first TripTik was made in 1937 to identify usable roads for drivers when roads were not paved, and then soon started to be mass-produced (Melnitsky, 2019). AAA members could order one by phone and receive it by mail or visit a local auto club branch to create one on the spot. Once the member gave the starting and ending points, an AAA agent used a highlighter to mark the route on strip maps, which were then combined into a spiral-bound booklet. Members could use these individualized flippable maps to plan their travel, get turn-by-turn directions while driving, and record their journey. A customized TripTik often came with multiple other AAA maps that had more detailed information for travel, such as the TourBooks, Road Atlas, and CitiBook maps.

AAA's cartographic department comprised the data research, production/standards, and cartographic function teams and employed numerous full-time cartographers, researchers, compilers, editors, road reporters, and typesetters who updated their maps every year (Owen, 1987). Until the 1990s, the map update process started with AAA's field cartographers hand tracing U.S. Geological Survey topographic maps by verifying roads and drawing new ones. Then, in-office cartographers drafted the updates into maps through a technique called "scribing," a process where maps were etched into plastic-coated sheets and other elements were typed on films (AAA, 2019). AAA was at the forefront of cartography, as the free distribution of their self-produced road maps was considered the core service of this nonprofit organization that operated on membership fees.

By the 1980s, AAA strip maps covered over 100,000 miles of roads in North America. While bulky folded maps and map books were sold in many retail stores, TripTiks, made by experts backed by AAA's extensive resources and infrastructure, were tailored for each trip and much more convenient to use. They were also easy to get, as AAA branches were everywhere in North America and members could order one for free. Advanced mapping technology, up-to-date travel information, easy access, and a user-friendly interface helped AAA and TripTik become a necessary companion for road trips in the 20th century.

However, the arrival of digital mapping forever changed the sociotechnical infrastructure of navigational mapmaking and distribution. Cartographers did not need to draw maps by hand anymore, as now software could process geospatial data and render digital maps of the whole earth. Leading technological companies such as Yahoo and Microsoft launched their own map services, and the demand for TripTik dwindled as digital interactive routing became widely available. In the 21st century, it was not the cartographers of AAA but the engineers and designers of tech companies who were innovating navigational maps.

Google Maps was first launched in 2005 as a relative latecomer to the digital mapping sector. Google's key growth strategy was to open up its service for user participation, who perform the costly database maintenance activities for free (Plantin, 2018). Maps need frequent updates because geographic

information changes constantly. Unlike AAA who directly hired numerous on-site researchers to provide timely information, Google built a system of outsourcing information from its users. Just by using Google Maps, users generate the data necessary for maintaining the accuracy of the map. For instance, Google Maps automatically collects user location and behavioral data through its mobile application to provide real-time navigational data (Plantin, 2018).

Over the years, Google introduced programs to further channel user participation. In 2014, Google My Business (later renamed Google Business Profile) was launched, a feature that allowed businesses to update their information, upload photos, and respond to customers (Pritchett & Dennis, 2014). Programs to generate more customer reviews complemented these efforts, such as the operation of their Local Guides platform that encourages users to voluntarily review the places they visit as an act of care for the community (Bhandari & Noone, 2023). By promising visibility on the map to businesses and employing the language of a community to local dwellers, Google effectively crowdsourced the task of providing detailed information about places, which was once a full-time job of writers at AAA.

Simultaneously, Google Maps grew into a multibillion-dollar advertising business. Google built a system where user data is not only the backbone of their operation but also the basis of advertising revenue (McQuire, 2019). On Google Maps, the visibility of places is not determined by the complex algorithms that prioritize Google's private interest. Precise location data helps Google Maps to expose targeted advertisements through surveillance (Ström, 2020), and their review and ranking programs focus on turning experiences into consumption (Bhandari & Noone, 2023). Google Maps, which started as a free online map allowing user participation, turned into an essential infrastructure for spatial navigation, and a giant advertising machine that profits from tracking and selling user data.

"Today, it's a gateway to exploring the world—both digitally and in real life" (Reid, 2020, para. 1). This statement by Google's vice president of engineering is not an overstatement, as now Google Maps is used by one billion people around the world every month, and 5 million websites and apps build on Google Maps Platform (Reid, 2020), with the digital version of TripTik being one of them. In less than two decades since its first launch, Google Maps became "the" sociotechnical infrastructure that mediates our relationship with our surroundings. That is why it is important to scrutinize the worldview and the social relations Google Maps deliberately produces through its maps.

### One Route, Two Journeys: From Los Angeles to Battle Creek

#### *Leaving Los Angeles: The Location of the Human Body*

> Between Barstow and San Bernardino a section of the great Mojave Desert is crossed. In the summer months this should be driven at night by those susceptible to intense heat. There is a spectacular descent from the summit of Cajon Pass just before reaching San Bernardino, but the grades are easy. Between San Bernardino and Los Angeles the country is attractive, well-settled and given to the extensive cultivation of citrus fruits and grapes. The country is level but there are some fine views of the mountains from the highways. (AAA, 1949)

This is how the first page of Mr. Swisher's TripTik strip map starts. It is in stark contrast to the directions given by Google Maps (n. d.-a):

> Via CA-60 E and I-15 N. Get on US-101 S from N Main St. Follow CA-60 E and I-15 N to CA-247 N/Barstow Rd in Barstow. Take exit 183 from I-15 N. Continue on Barstow Rd. Drive to Melissa Ave.

Absent on Google Maps but present in TripTik is the physicality of the travel. The human body crosses the desert. There is a season and time of the day for the drive. The traveler feels the temperature, judges the grades, and appreciates the attractiveness of the landscapes. The vivid illustration of the route as a physical encounter between the human body and the surrounding environment narrates a completely different story from the direction-focused Google Maps. On Google Maps, the location of a human body is a data point. A map user in Los Angeles is found through the plus code, 85632PC6+R8, or the altitude and latitude (34.0220127, −118.2892046). The act of moving from point A to point B simply means that these numbers change. The "intense heat" or "fine views," which the TripTik prioritized as the information a driver should know, is not found in the directions from Google Maps.

How Google Maps locates the human body is indicative of what scholars of data and algorithms have warned as the reduction of the human to data. That is, in this increasingly digitized world we live in, rather than considered a wholistic being, humans are categorized, indexed, and expressed through data, which has consequences, as data augment our realities (Cheney-Lippold, 2017). The contrast between AAA TripTik and Google Maps demonstrates the implication of human location being reduced to data. From a subject of bodily feelings, the bodies of humans become objects to be moved to another geospatial data point. The driver who only uses Google Maps may not try to avoid driving through the desert on a summer day, though she may successfully reach the destination.

### Crossing the Rocky Mountains: In Search of Small Towns

As the TripTik route continued to Utah, Colorado, and Nebraska, Mr. Swisher passed many small towns in the Rocky Mountains. On the 1949 TripTik, descriptions of towns appear next to the map, right below the overall route explanation, taking up significant space on each page. Examples of the 80 towns/cities and five national parks introduced in the 17 pages of AAA's maps are as follows (1949):

> **SAINT GEORGE,** population 2,424. This is a picturesque Mormon settlement and has a fine Mormon temple. The town was the winter home of Brigham Young.

> **STEAMBOAT SPRINGS** (1,613). Named for the group of springs which gush forth from a rock nearby making a sound similar to the puffing of a river steamer. The town is a winter sports center. Its Howelson slide is one of the best in the West and many national ski records have been made here.

Maps may not create destinations, but they have the power to strongly suggest where to visit along the way. Mr. Swisher may have stopped in Saint George to see the Mormon temple or in Steamboat Springs to listen to the sound of the springs because he read about them on his TripTik. The trivia, such as "the winter home of Brigham Young" or "named for the group of springs," provides character to these easy-to-dismiss small towns. Page after page, the TripTik vividly illustrates the culture, nature, and history of 1949 America, enticing the map user to stop for an encounter with them.

In contrast, Google is indifferent in introducing the towns, cities, and parks on the way. The overall route explanation consists of directions only, such as "keep left to stay on I-76 E." The name of a town is rarely present on its navigation view, and explanations of each town are absent unless someone types in the specific name of the town in the search box. Gas stations, restaurants, coffee shops, grocery stores, rest stops, and hotels are the six categories that can be searched en route on Google Maps mobile app, but not points of interest. Even for those who searched to reach the information page of the towns, the text is borrowed from Wikipedia.

Discussing the "silence of maps," Harley (2009) explained that maps "exert social influence through their omissions as much as by the features they depict and emphasize" (p. 136). The invisibility of small towns on Google Maps has consequences. Driving 2,200 miles across the country, regardless of the purpose, provides an opportunity to learn the landscape. The seventeen pages of the TripTik that are full of explanations of the towns and the directions from Google Maps that do not introduce any of them create disparate understandings, encounters, and relationships with the places enroute. For someone who travels with Google Maps only, Saint George and Steamboat Springs may have never made it into their consciousness.

### *Welcome to Battle Creek, the City of ~~Cereal~~ Firekeepers Casino Hotel*

The careful disregard of the towns on Google Maps is not a product of coincidence. Google Maps has other purposes and places to promote. In Google Maps, while the towns and parks sink into the back layer, the businesses rise to the front.
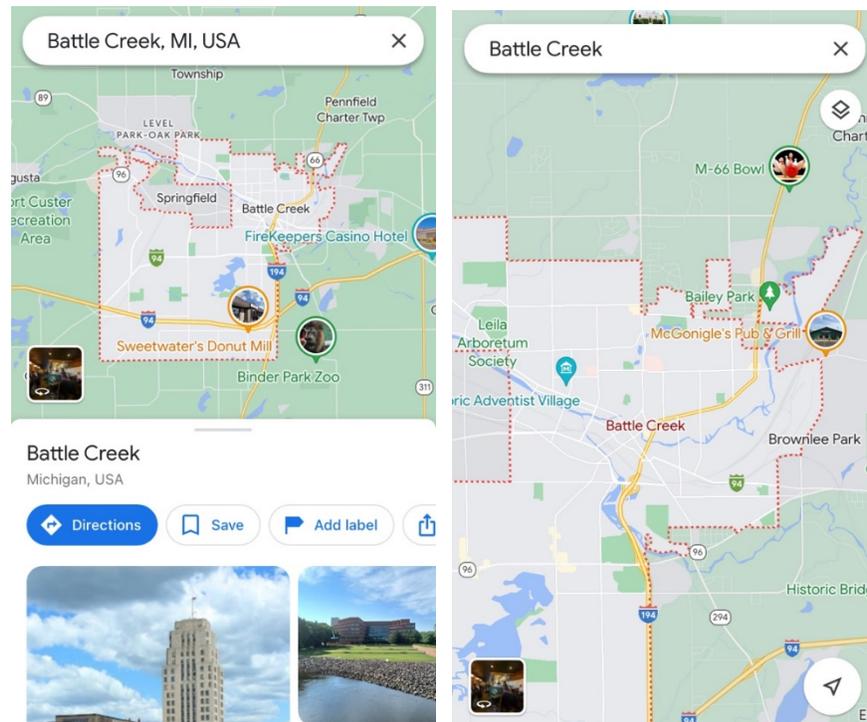
*Figure2. Battle Creek, Michigan, on Google Maps mobile application (n. d.-b).*

If someone searches Battle Creek on Google Maps, the first three highlighted places of interest are Sweetwater's Donut Mill, Binder Park Zoo, and FireKeepers Casino Hotel. Zooming in a little closer, M-66 Bowl and McGonigle's Pub & Grill are visible on the map. It is not difficult to guess why these businesses are prioritized in Google Maps instead of traditional landmarks, such as city halls, train stations, or hospitals. Google Maps wants their users to visit the businesses that buy their advertisements.

On TripTik, restaurants and hotels appeared on the back of the page very shortly. AAA (1984) ensured that "no attraction, hotel, motel, resort or restaurant pays for a listing. Each is listed on the basis of merit alone after careful inspection and approval by a AAA field representative or a designated AAA representative" (p. 3). For AAA, a nonprofit association that relies on membership fees paid by automobile owners for its operation, making a trip of a member "as enjoyable as possible by providing accurate, detailed information" was the main purpose of mapmaking (AAA, 1984, p. 3), and they recognized that including paid listings could hinder the very purpose.

In contrast, for Google Maps, which relies on advertisement revenue, travelers are not the customers but the main product Google should sell to businesses. Google's core operation is to generate user data and then sell that data to advertisers (Srnicek, 2017). Zuboff (2015) warned that such business models of platforms build an extractive relationship between the platforms and their users. That is, platforms become uninterested in the wellness of their users; rather, they focus on capturing and

commodifying all human behavior in the form of data. She further argued that such practices of platforms are often connected to behavioral manipulation, which endangers our freedom.

These critiques are well observed in Google Maps' version of Battle Creek. The places prioritized are not in the best interest of travelers. Exposing users to casinos, sweet shops, and pubs, and letting them spend time and money on these establishments, is how Google Maps generates billions of dollars while offering the services for free. Mr. Swisher's TripTik reminds us that the true cost of using Google Maps also includes missed opportunities, the behaviors that cannot be captured by data or that are difficult to commodify, for instance, stargazing, walking in the park, and learning that Battle Creek is the cereal center of the whole world: "Battle Creek, population 43,575. A famous resort, the home of the Battle Creek Sanitarium, and the cereal food center of the world. Seat of Battle Creek College" (AAA, 1949).

## Conclusion

As Mr. Swisher's journey comes to an end, it is made clear that perhaps what he experienced by following the TripTik in 1949 may be very different from the trip of someone who follows Google Maps nowadays. The two journeys of one route showed us that the sociotechnical infrastructure of mapmaking exerts power over the travelers' decision of what to see, when to drive, where to stop, and how to remember the experience, through the maps.

The contrast of the two maps confirms that maps do not advance, but they change to reflect the social relations that created these maps. Critical cartographers rejected the idea that the evolution of maps is a linear progression based on scientific accuracy (Harley, 1989). Rather, they regarded mapmaking as an intellectual, technological, social, and cultural process (Crampton, 2001). While it is undeniable that Google Maps revolutionized directional maps to offer unparalleled affordances to navigate places, this article reveals that it restricts possibilities for exploring the world as much as it enables.

Investigating earlier forms of maps like the TripTik and acknowledging that Google affords only one specific type of digital cartographic form allows us to imagine the alternatives. Crampton (2001) emphasized that by appreciating diverse cartographic forms instead of promoting the most accurate as the best, we can enable maps to evolve contingent upon society, culture, and history (p. 243). The 1949 TripTik lets us question whether other digital cartographic forms have not yet reached prominence. We still do not have interactive digital maps that are more concerned with our bodily feelings, tell us the stories of towns we are passing by, or encourage us to build an equitable relationship with our surroundings.

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