

Tamed Wanderers: How Predictive Algorithm Governance Reshapes Individual Existence

-- Taking AutoNavi Maps as an Example

Wenwen Liao^{1 a *}, Haijun Yang^{2 b}, and Yingyi Hua^{2 c}

^{1, 2} School of Journalism and Communication, Shanghai University, Shanghai, 200444, China;

^a 418985176@qq.com, ^b yhj@163.com, ^c huayingyi2016@163.com,

Abstract. Taking AutoNavi Maps (Amap) as its subject, this paper explores how algorithms reshape urban mobility and individual existence under the guise of prediction and optimization. The central question is: When navigation technology becomes the “default background” of daily actions, at what levels do algorithms participate in the governance of cities and bodies? This study reveals a contemporary shift in power genealogies — from territorial-centered sovereign governance to data-flow-centered generative governance. Through continuous data extraction and integration, AutoNavi transforms urban activities into raw material for algorithmic learning. Its predictive models preemptively intervene in the future, extending governance into unplayed scenarios. Simultaneously, the map's generative practices actively produce spatial order and commercial visibility through ranking and route recommendations. “Algorithmic time” further regulates individual rhythms and emotions, domesticating life within computable temporal frameworks. Research indicates that navigation algorithms not only shape the efficiency of mobility but also, in a subtle yet profound manner, restructure the perceptual framework and existential logic of urban experience.

Keywords: AutoNavi Maps; algorithmic governance; individual existence; platform power; generative media

1. Introduction

"We did not domesticate wheat; wheat domesticated us." Harari's metaphor reveals the profound power dynamic between technology and humanity. Thousands of years ago, humans believed they controlled agriculture, yet wheat reshaped their bodies, time, and society—transforming them from wandering gatherers into cultivators bound by seasons and land[1]. This structure of "domestication" did not end in antiquity but merely changed form. In the digital age, a more insidious domestication unfolds: we believe we control cities through maps, yet our actions are shaped by algorithms.

Maps once compressed the world into lines and symbols, freezing uncertain spaces into order. Harley noted that maps are never neutral; they are an exercise of power, rendering the world "governable" through representation[2]. As maps digitized into real-time, interactive, computable media, they ceased merely to represent the world—they began to participate in its creation.

Today, as we stare at the flickering blue route on our screens, we mistakenly believe we control navigation: input destination, choose path, click start. Yet beneath the surface, our patience, pace, and sense of direction are being calibrated by the map. AutoNavi doesn't merely tell us how to arrive; it transforms "how to act" into a predictable, optimizable, governable logic.

This essay focuses not on navigational efficiency, but on the power dynamics of algorithmic governance. It does not manifest as command, but embeds itself in daily life through services, recommendations, and optimizations. It sets boundaries before choices arise, offers answers before hesitation emerges, and promises "optimal solutions" before anxiety takes hold. Power no longer oppresses; instead, it leverages convenience and care to elicit individuals' voluntary compliance. Foucault noted that modern power operates not through external coercion but through internalized governance—making control routine and imperceptible through meticulous arrangements of bodies,

time, and space[3]. Deleuze revealed that control societies function through coding, parameters, and continuous regulation[4]. Within this lineage, smart maps emerge as a critical interface: constantly generating structures of possible actions.

AutoNavi Maps continuously collects user location, speed, dwell times, and search queries, weaving this data into self-updating predictive models. Roads cease to be mere physical spaces, becoming instead density grids and congestion risks; time no longer flows continuously but is fragmented into computational units of "estimated arrival times." Clicking "Start Navigation" effectively surrenders judgment to hidden governance logic.

The city ceases to be merely a backdrop for action, transforming into a computational, choreographed "algorithmic field": streets encoded as efficiency curves, neighborhoods compressed into point-of-interest distributions, daily movements recorded as predictable data trajectories. Algorithmic governance reshapes individuals' understanding of time, distance, and choice through the city's mediating layer. The city becomes an interface of power, where individuals are identifiable, optimizable, and schedulable nodes of flow. The "domesticated wanderer" isn't one who has lost the capacity for action, but rather an existence that internalizes external logic as bodily intuition within an algorithmic environment. People increasingly rely on platform-generated "optimal solutions," with navigation blue lines gradually becoming the default structure of movement.

Wheat transformed humanity's dependence on land; maps are reshaping our understanding of direction. A question arises: As roads grow clearer and paths increasingly "optimal," can we still choose to get lost? What is truly tamed may not be the city itself, but the wanderers who, believing themselves free, navigate algorithmically paved paths with ever-greater precision.

2. The Algorithmic Eye: AutoNavi's Data Extraction and the World's Digitization

The essence of a map has always been "seeing." Yet in the digital age, this "seeing" is no longer performed by humans—algorithms gaze upon the world for us. Amap's algorithmic eye, with data as its pupil and computation as its gaze, constructs an unprecedented, continuously updated urban representation system. It not only depicts cities but actively generates them in real time.

2.1 Data Extraction: From "Free Service" to "Behavioral Collection"

Amap's business model mirrors most platforms: attracting users with "free" services while exchanging them for "data." According to Amap's official open platform data, it processes over 100 billion daily requests for location services and route planning [5]. Every search, navigation, stop, and route adjustment is converted into location, time, and behavioral data. This data continuously flows into the Alibaba Cloud ecosystem via SDKs (Software Development Kits) and API interfaces, forming a massive "spatio-temporal database."

This data extraction is not a one-way process but a "passive complicity." As Zuboff noted in *The Age of Surveillance Capitalism*, users unknowingly transform their behaviors into raw materials for the platform's economy[6]. Amap, while ostensibly providing navigation services, actually leverages data feedback mechanisms to deliver algorithmic support for advertising, commercial planning, and urban management. For instance, its "heatmap" feature is widely used for business site selection and city governance[7]. Thus, personal movements belong not only to the individual but also become input for platform optimization.

2.2 Data Integration: Algorithms as "Knowledge Machines"

The power of data lies not in collection, but in computation. Through "spatiotemporal modeling" technology, Amap integrates geographic data from diverse sources into dynamic networks. This process resembles Foucault's concept of the "knowledge-power complex": knowledge no longer merely explains the world but becomes a means to organize and discipline

it[8]. Take traffic forecasting as an example: Amap employs the "Spatio-Temporal Graph Convolutional Network (ST-GCN)" model to predict future road congestion[9]. This model analyzes historical traffic flow, real-time location data, and environmental variables to generate dynamic traffic graphs, thereby projecting mobility trends for the coming hours. Such forecasting transcends mere speculation about the future; it constitutes forward-looking governance. When users follow recommended routes, they are effectively "executing" the algorithm's predictions, allowing reality to be pre-shaped by computational logic.

2.3 The Power of Data: From Visible to Controllable

As maps become containers of data, the nature of power transforms. In traditional maps, power stemmed from naming, surveying, and territorial demarcation; in digital maps, it arises from prediction, recommendation, and dispatch. As Foucault wrote in *Discipline and Punish: The rationality of power is not prohibition, but production.*[10]. Amap embodies this productive power: it does not force users to follow specific paths, but guides their choices through algorithmic "optimization."

A notable example is Amap's "recommended route" mechanism. According to its official algorithmic documentation, Amap calculates routes by integrating over 20 parameters including "real-time traffic conditions," "user preferences," and "travel efficiency"[11]. When a particular path is chosen by more users, its algorithmic weight increases, which in turn influences more users' decisions. The algorithm thus forms a self-reinforcing mechanism of "flow governance." While users believe they are exercising "free choice," they are in fact drawn into a data-driven urban orchestration.

In this process, the individual's "sense of presence" is recoded into quantifiable metrics: time, distance, efficiency, click-through rate. As Byung-Chul Han observes, when efficiency becomes the new ethic, individual existence is subsumed into an "order of performance" [12]. Within the Amap interface, the city is compressed into a real-time, pulsating neural network, where personal movement becomes a computable impulse—visibility and controllability merge as one.

2.4 The Datafication of the World: From Map to Medium

Datafication is not merely a technological trend but a mediatic turn. As Kitchin observes, data is not a neutral reflection of the world but a constitutive production of it[13]. As AutoNavi's algorithms continuously update urban heatmaps, POI distributions, and traffic models, the reality of the city is constantly rewritten. The medium ceases to be an intermediary and becomes a co-producer of reality.

This is particularly evident in the convergence of urban policy and platform practices. In Huangshi, Hubei's smart transportation project, data from the "evaluation-diagnosis-treatment" system, combined with large-model capabilities enhancing green wave algorithms and AI green wave software tools, collectively implemented rapid green wave coordination across seven major arterial roads in Huangshi [14]. Thus, urban governance has entered a state of "algorithmic co-governance": governments rely on platform data for decision-making, while platforms depend on urban activities to generate data. Power and media, governance and daily life, computation and perception intertwine here to form a novel power ecosystem.

Ultimately, Amap's algorithmic eye does not merely "observe" the city—it also "writes" the city. By absorbing, integrating, and predicting users' spatiotemporal behaviors, it incorporates individual micro-movements into the macro-level governance landscape. As demonstrated in the "National Pilot Program for Building a Strong Transportation Nation," Amap has become a crucial national-level platform supporting smart transportation systems. Its multi-source data integration capabilities and predictive models are deployed for urban operation monitoring, congestion management, and travel optimization[15]. In this evolution, Amap transcends being merely a navigation tool to become part of the urban knowledge system—a mediating power structure that transforms "seeing" into "governing."

If traditional maps primarily participated in power dynamics by "mapping territories," then smart maps introduce not new spatial forms but a new temporal mechanism. Power no longer governs solely by demarcating boundaries but intervenes through preemptive calculation and adjustment of actions yet to occur. It is precisely at this level that "algorithms" cease being mere technical tools and gradually become a governing logic capable of anticipating, organizing, and guiding actions.

3. Predictive Power—How Algorithms Calculate, Forecast, and Shape "Future Mobility"

When the city's fabric is taken over by blue lines on screens, the future ceases to be something waiting to happen. Instead, it becomes a computable scenario unfolded in advance by algorithms. When we press "Start," the map gently declares: "I have seen the future for you." This gentleness is precisely the face of predictive power—it manifests not through command, but through the certainty of computation, taming the uncertainty of life.

3.1 The Logic of Prediction: From Data to Desire

Prediction is not sorcery, but an artistry that weaves time and space into mathematical structures. Spatio-Temporal Graph Convolutional Networks treat roads and intersections as nodes, embedding time series into convolutional operations to "learn" patterns of traffic flow variation from historical data [16]. Another class of diffusion-based convolutional models simulates the propagation of traffic flow through road networks, enhancing prediction robustness at short- and medium-term scales [17].

The true turning point, however, occurs when these models are embedded into platform products. They cease to be mere technology and become instruments of power. Navigation systems like Amap transform model-based predictions into real-time recommendations: when the system anticipates congestion on a road segment ten minutes ahead, it proactively pushes alternative routes to millions of users. The future is no longer an event awaiting occurrence but a present that is preemptively orchestrated. Algorithms do not merely glimpse the future; they generate a present driven by prediction.

According to Xinhua News Agency, AutoNavi Maps' traffic big model has been applied in refined congestion management projects across multiple cities. By leveraging multi-source traffic big data to preemptively identify bottleneck sections, it enables "proactive prediction and intervention" [18]. Prediction thus becomes integral to governance logic and underpins everyday experience.

3.2 Path Discipline: Algorithmic Efficiency and Spatial Commercialization

"Optimal route" sounds like a neutral calculation — saving time, avoiding congestion. Yet "optimal" is never pure mathematics; it carries value judgments. When algorithms prioritize "shortest time" and "lowest fuel consumption" as core weights, efficiency becomes a creed of modernity and a new form of discipline. Serendipity, wandering, and deviation in the city are diminished; life's twists and turns are flattened into a straight line.

As Deleuze observes in the Postscript to the Society of Control, governance no longer relies on prohibitions but shapes behavior through parameter flows, feedback loops, and scheduling mechanisms [19]. The recommended "optimal route" constitutes a form of soft discipline: it does not command you to turn, but gently calculates your path for you. Millions of individuals submit to these silent parameters, coalescing into the algorithmic order of urban flow.

Simultaneously, algorithmic discipline manifests as the distribution of visibility. POI (Point of Interest) ranking and paid promotion mechanisms determine which businesses are seen and which sink into the information abyss. Public data from AutoNavi's Open Platform reveals that businesses can enhance exposure through services like "POI Selection" and "In-Store Promotion." This

algorithmic visibility constitutes a new form of capital [20]. To be recommended is to exist; to be hidden is to be deprived of the right to participate in the flow.

3.3 Domesticated Bodies: Path Dependence and Mental Structures

Predictive power's deepest impact falls not on cities, but on bodies. We grow accustomed to relying on navigation for direction, gradually outsourcing our perception of the city to algorithms. Kitchin observes that the data revolution not only reshapes information structures but rewrites life's logic: daily existence is recoded into nodes, paths, and events[21]. Between the blue lines of "departure – arrival," we are molded into calculable entities.

This bodily domestication manifests psychologically as "path dependency"—people increasingly resist deviating from recommended routes, as doing so means losing the certainty granted by algorithms. As Zuboff demonstrates, modern power's subjugation lies not in oppression but in inducement; we are controlled through comfort and shaped by convenience[22].

Amap's real-time "National Traffic Incident Response Index" demonstrates how completing incident reporting and route adjustments through the shortest publishing process rapidly reaches users to generate impact. The platform's intelligent guidance services leverage massive traffic data to recommend globally optimal decisions, scientifically allocate traffic flow, effectively alleviate congestion, and reduce peak-hour gridlock on urban thoroughfares[23]. Behind this efficiency lies a collusion between bodies and systems: algorithms optimize cities while simultaneously optimizing our own compliance.

3.4 Summary: The Power of Prediction and the Computability of Cities

Predictive power represents the algorithmic extension of modern governance. It captures temporal patterns through deep learning models to capture temporal patterns, reshape spatial order through efficiency logic, and construct new power ecosystems via recommendation mechanisms and co-governance with governments. It generates order through computation rather than maintaining it through prohibition. Cities thus enter a "computable future": every individual's movement, every red-light wait, every road segment's traffic flow becomes input and output for algorithmic models. Prediction becomes both a mode of governance and the structure of life. We are tamed by efficiency, computed within flow—and this is precisely the deepest gentleness of algorithmic power: it makes us believe we are choosing, when in fact we are merely compliantly heading toward a pre-calculated future.

Yet algorithmic governance does not operate in a vacuum. Predictions and recommendations do not act directly upon abstract "individuals," but must unfold through concrete spatial structures. This space is not a naturally occurring backdrop, but a technological field continuously encoded and reconfigured through the joint action of platforms, governments, and data systems. It is therefore necessary to further examine: how algorithms leverage the mediating structure of urban space to translate abstract computational logic into perceptible, actionable environments.

4. Generative Power—From "Territorial Medium" to "Generative Medium"

The moment classical maps unfolded, the ink lines traced not only mountains and rivers but also the sovereign's gaze. As the map spread, the world was named, divided, and frozen by power. J. B. Harley astutely observed that maps are not mirrors of the world, but rather "the way the world is drawn"—a visual power that incorporates the unknown into the horizon of domination [24]. To draw is to declare: every borderline, every place name, constitutes a political language.

With the rise of industrial cities, the power of maps shifted from "depicting territory" to "disciplining society." Foucault reminds us that the core of modern power lies not in prohibition but in discipline—making the body an extension of power through spatial arrangements, temporal schedules, and behavioral norms[25]. Urban maps participate in this micro-discipline: grid-patterned blocks, transportation nodes, and flow trajectories constitute new orders. Maps not

only record passage but also shape "how one ought to pass." Yet in the algorithmic era, this spatial control undergoes further transformation: power shifts from static structures to generative processes. As Deleuze observes, generation is not repetition but continuous emergence within difference[26]. When we open Amap, we no longer see a depicted city but a fluid space dynamically reconfigured by algorithms in real time.

Amap has long ceased to be a tool of "representation," evolving instead into an active actant in urban operations. Its algorithmic system updates road conditions in real time with millions of data points per second, generating new traffic flow distributions. In Hangzhou's Xiaoshan District, a pilot application of the "Yunxin" traffic control platform—developed jointly by AutoNavi and Zhongkong Information—increased average travel speeds on main roads by approximately 6.3% and reduced congestion alerts by 6%[27]. Within such systems, maps no longer merely reflect reality but directly participate in "manufacturing" it—dynamically generating the city's rhythms of movement through prediction and feedback.

This "generative power" does not command directly but shapes freedom by generating "choices"[28]. Recommendations, rankings, and predictions become the new syntax of power. POI ranking mechanisms and merchant promotion logic embody this power: algorithms determine which locations are seen and which are hidden. As disclosed in AutoNavi's Open Platform and its POI/promotion service documentation, the platform directly influences merchant visibility through recommendation pages, POI ranking, and paid promotion mechanisms, becoming a crucial channel for merchants to acquire traffic[29]. Visibility has thus become a new form of capital—being seen equates to survival, while algorithmic invisibility signifies commercial invisibility. Luciana Parisi notes that algorithms are not merely executors but "generative logics" that continuously produce new orders within computational uncertainty[30]. Maps generate desire while simultaneously generating order.

Practically, AutoNavi's algorithmic governance has expanded beyond navigation into the deep structures of urban management. Through its "Smart Traffic Diagnosis and Treatment" system, the platform provides traffic impact assessments for urban development projects. Leveraging multi-dimensional data—including road network infrastructure metrics, congestion bottleneck analysis, public transit accessibility, and destination attractiveness indices—it delivers real-time decision support for land development and major transportation infrastructure planning[31]. This "assessment-diagnosis-treatment" model represents a new phase of algorithmic power—it not only records traffic conditions but actively participates in generating and planning urban flows. The city's rhythm is thus algorithmically "scheduled": recommendations alter foot traffic, and data feedback in turn reshapes recommendations. The map's generative logic transforms "reality" into a continuous process of reproduction—space is predictively organized, and time is optimally scheduled.

Philosophically, this generativity signifies an ontological shift in media. Maps are no longer "mirrors" of the world but become "media-in-action," continuously generating reality within data streams. Shannon Mattern terms this the "computational city"—a city as an algorithmic artifact, woven through code, data, and perception into new modes of existence[32]. AutoNavi Maps' real-time computation not only shapes urban order but also molds our perception: we sense space through algorithms, understand cities through recommendations, and experience time through predictions.

Yet, as Zuboff reveals, "surveillance capitalism" quietly permeates this process. What emerges is not pure order, but a reality guided by commercial logic[33]. The economic model behind recommendations transforms moving bodies into monetizable data. We believe we are "navigating the city," yet we are actually "producing data" for platforms. The gentleness of generative power lies in its silent efficiency, deeply embedded in daily life—it no longer tames anxiety through coercion, but through convenience and certainty.

This logic is not entirely foreign to China's cartographic tradition. Wang Haoran and Xie Qingguo studying ancient Chinese mapping practices, note that traditional maps often blended embodied and humanistic imagery. Their significance lay not merely in accurate spatial representation but in constructing symbolic relationships between people and place[34]. Modern algorithmic maps inadvertently perpetuate this tradition — only now, they reshape the "unity of heaven and humanity" through data and prediction: bodily movement is translated into data trails, social order folded into algorithmic models. We once charted the world to master it; now we are charted and mastered. Maps transform from "media of territory" into "media of generation"; from spatial representation into the orchestration of reality.

As maps actively generate reality, time itself is rewoven. We no longer live by physical clocks but by algorithmically set rhythms — every journey, every wait, every "estimated arrival time" becomes a calculated existence. If spatial power lies in orchestrating bodies, then temporal power lies in orchestrating our patience and anxiety. It is precisely within this urban space — constantly computed, annotated, and optimized — that individuals' modes of action undergo layers of subtle transformation. Algorithmic governance does not directly coerce individual will through force, but rather, through environmental presetting, renders certain paths natural and smooth while gradually making other choices seem inefficient, unfamiliar, or even unimaginable. Thus, the question is no longer merely how the city functions, but rather: within such an algorithmic environment, how individuals reinterpret their sense of time, direction, and so-called "free action."

5. The Reshaping of Individual Existence: Algorithmic Time and the Governance of Fluidity

As we stare at the blue countdown on the navigation screen, bodily tension and release converge in that instant. Algorithms translate "when you'll arrive" into "when you should depart"; "how far the road is" becomes "how many minutes remain." Here, time transforms from a physical continuum into a calculable predictive mechanism — we no longer walk through time, but through time constructed by prediction. As Hartmut Rosa observes, modern society's time is being compressed: "technological acceleration," "accelerated social change," and "accelerated life rhythms" collectively form a new spatio-temporal structure[35]. In the era of digital navigation, this compression takes on a new form: algorithmic time.

Algorithmic time is not a contest of "speed" in the traditional sense; it is the logic of "synchronization." Judy Wajcman notes in her research that within digital capitalism, time has become a scarce resource, subjecting individuals to unprecedented "time pressure" in both work and daily life[36]. In navigation apps, this pressure is deconstructed into the certainty offered by "Estimated Time of Arrival (ETA)": it promises your arrival at a specific moment, alleviating precisely the anxiety of delay caused by uncertainty. Further research reveals that one key benefit of digital navigation is reducing travel time uncertainty[37]. This means algorithms predict and prepare before congestion even occurs.

Thus, navigation platforms like Amap become "intermediaries of time." Through real-time traffic congestion models, POI recommendation mechanisms, and user trajectory feedback data, they weave a pattern of "time governance": you choose a route, it predicts congestion; you rely on the blue line, it optimizes flow; you think you control time, but time is controlled by algorithms. Whether taking the subway, driving for ridesharing, or hailing taxis, all movements are embedded within an algorithmically preset rhythmic system. Time is compressed, synchronized, standardized — individuals are placed within a "planned temporal field." More nuanced research further indicates: using navigation apps, following recommended routes, and adjusting paths online can cause structural congestion spillover effects in transportation networks[38]. This suggests "algorithmic time" not only manages individuals but also reshapes the rhythm of entire cities.

Within this field, the governance of mobility tames our existence under the banner of "temporal certainty." Shannon Mattern observes in her research that media not only convey information but also embody perceptual, environmental, and bodily experiences[39]. When a navigation interface displays "8 minutes remaining," our emotions are mobilized—*anxiety eases, confidence builds, yet a tacit surrender occurs.* We willingly let algorithms "estimate our future" in exchange for a sense of reassurance. This reassurance no longer stems from spatial control but from temporal prediction. Simultaneously, recent studies indicate that GPS and navigation dependency heighten people's "spatial anxiety" levels and diminish their autonomous navigation abilities[40]. This highlights the dual nature of algorithmic time governance: it provides reassurance while also domesticating us.

We must recognize: as we execute routes within algorithmic time, our very sense of presence is being reshaped. We are no longer merely "present" but "scheduled"—told when to depart, when to pause, and which path to take. David Harvey noted that capital-driven speed compresses space-time into a new logic of productivity[41]. Today's capitalized platforms further translate this logic into algorithmic form: individual movements, stops, and waits all become quantifiable variables. You are not merely a traveler; you are a data point on a path, the result of a temporal calculation. As vast numbers of users enter this system, the city's rhythms of flow, commercial nodes, and visibility are profoundly reshaped by temporal algorithms. Algorithmic time makes the bustling food zones near subway exits, the commercial density of neighborhoods, and taxi congestion indices appear "natural" — yet they are redistributions of time and flow. Recommendation, prediction, and synchronization form the fabric of platform governance. We are navigated not only through space but also through time; we no longer wander but walk according to algorithmic time.

Within this flow, presence becomes subtle yet visible. We may believe we choose our routes, yet we might merely follow the blue line; we may think we control time, yet we may already be synchronized to the algorithm's rhythm. In the governance field of algorithmic time, the freedom to wander is folded into predictable sequences, and individual presence is mathematized, standardized, and orchestrated. Maps are no longer mere tools; they become the medium of temporal governance, the deep foundation of flow management.

As algorithmic governance continuously shapes individual behavior through the intermediary structure of the city, people find it increasingly difficult to distinguish whether they are using maps or being shaped by them. Individuals no longer make choices outside of technology but instead enact so-called "freedom" within pre-structured paths and rhythms. It is precisely within this tension that the "domesticated wanderer" ceases to be mere metaphor and becomes a crucial entry point for understanding the power dynamics of contemporary intelligent media.

6. Conclusion: Mapping is Power—Rediscovering Direction in a Tamed World

When humans first traced lines in sand to mark paths to their tribes, maps were born. Back then, mapping meant mastering direction; within AutoNavi's blue network, mapping means being mastered. Yuval Noah Harari reminds us that civilization began not when humans domesticated wheat, but when wheat domesticated humans—we traded nomadic freedom for stable sustenance [42]. Today, algorithmic maps have become the new wheat: we relinquish the right to get lost for the sake of efficiency's convenience.

Foucault observed that power is not external coercion but an "internalized governance" that shapes individuals through the discipline of bodies and the molding of perceptions, rendering them controlled through self-awareness [43]. Deleuze further revealed the fluid form of this power in the control society: it no longer relies on boundaries but operates through ubiquitous coding and access permissions[44]. Algorithmic maps are precisely the visual interface of this control society—gently guiding every moving body in the name of recommendations, predictions, and optimal routes.

The genealogy of power extends here: from territorial governance to bodily discipline, and then to the governance of data flows. Evgeny Morozov critiques this "solutionism," arguing that our faith in technological efficiency obscures genuine political discourse[45]. When a navigation system

promises to save you five minutes, it also reshapes your imagination of time, space, and self-efficacy. As José van Dijck observes in her analysis, "datafication" transcends a mere shift in scientific paradigms; it constitutes a new ideology — where human experience is translated into computable patterns, becoming raw material for governance and a novel form of capital [46]. AutoNavi Maps embodies this ideology, transforming the serendipity of movement into an optimized inevitability through seamless interfaces, compliant algorithms, and precise predictions.

Individual existence is continually "algorithmized" within this governance: our time is predicted, our paths optimized, our emotions soothed. Smoothness becomes a new tyranny—the smoother the route, the barren the world. The success of algorithmic governance lies not in controlling whose actions, but in making everyone willingly walk the shortest path.

However, as Deleuze observed, “Escape is not evasion, but the creation of new possibilities.[47]” Perhaps we need to relearn how to “get lost” : turning off GPS, using offline maps, deliberately choosing non-optimal routes — these small acts of “de-algorithmization” constitute contemporary individuals' rewilding practices. Getting lost is not losing control, but reclaiming the power of perception: allowing time to flow again, letting space regrow, and making the body once more the measure of direction.

In a domesticated world, relearning to get lost is relearning to exist. Maps were once tools of conquest; now they may become opportunities for self-liberation. Mapping still signifies power—but it can also signify resistance. Facing the blue glow of algorithms, we can still choose to linger at the map's edges and ask anew: On these calculated paths, how do we relearn to get lost?

References

- [1] Harari, Y. N. (2014). *Sapiens: A brief history of humankind*. Harper. P. 116.
- [2] Harley, J. B. (1989). Deconstructing the map. *Cartographica: The International Journal for Geographic Information and Geovisualization*, 26(2), P. 4.
- [3] Foucault, M. (1977). *Discipline and punish: The birth of the prison*. Pantheon Books. P. 194.
- [4] Deleuze, G. (1990). Postscript on the societies of control. In *Pourparlers* (pp. 235-238). Columbia University Press. P. 5-7.
- [5] Amap Developer Platform. (2024). Route planning parameter description (Official document). Amap Developer Platform. <https://lbs.amap.com/advantage#market>
- [6] Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. New York: PublicAffairs. P. 9.
- [7] Ji, B., Li, J., Yao, X., et al. (2018). Analysis of parking planning in Changchun based on Gaode heat map. *Journal of Changchun University of Engineering (Natural Science Edition)*, 19(2), 29–31, 79.
- [8] Foucault, M. (1972). *The archaeology of knowledge*. Pantheon Books. P. 23.
- [9] Yu, B., Yin, H., & Zhu, Z. (2018). Spatio-temporal graph convolutional networks: A deep learning framework for traffic forecasting. In *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI 2018)*, 3634–3640.
- [10] Foucault, M. (1977). *Discipline and punish: The birth of the prison*. Pantheon Books. P. 26-27.
- [11] Amap Developer Platform. (2024). Route planning algorithm description. Retrieved from <https://lbs.amap.com/api>
- [12] Han, B.-C. (2017). *Psychopolitics: Neoliberalism and new technologies of power*. Verso.P.44
- [13] Kitchin, R. (2014). *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*. Sage Publications. P. 29.
- [14] Xinhua News. (2024, April 11). Gaode Map applies large models in the traffic industry for the first time to refine urban traffic congestion control. Retrieved from <https://www.xinhuanet.com/tech/20240411/d66a9e01651e4d80bbc96929efe4266d/c.html>

- [15] People's Daily Finance. (2024, December 31). Gaode Map successfully passes traffic strong country construction pilot acceptance. People's Daily. Retrieved from <http://finance.people.com.cn/n1/2024/1231/c1004-40393259.html>
- [16] Yu, B., Yin, H., & Zhu, Z. (2018). Spatio-temporal graph convolutional networks: A deep learning framework for traffic forecasting. In Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI 2018), 3634–3640.
- [17] Li, Y., Yu, R., Shahabi, C., & Liu, Y. (2018). Diffusion convolutional recurrent neural networks: Data-driven traffic prediction. International Conference on Learning Representations (ICLR).
- [18] Xinhua News. (2024, April 11). Gaode Map applies large models in the traffic industry for the first time to refine urban traffic congestion control. Retrieved from
- [19] Deleuze, G. (1992). Postscript on the societies of control. October, 59, P. 4.
- [20] Amap Developer Platform. (n.d.). API and product descriptions (positioning, routing, road conditions, POI, promotion, etc.). Retrieved from <https://developer.amap.com/>
- [21] Kitchin, R. (2014). The data revolution: Big data, open data, data infrastructures and their consequences. London, UK: Sage Publications. P. 94.
- [22] Zuboff, S. (2019). The age of surveillance capitalism: The fight for a human future at the new frontier of power. New York: PublicAffairs. P. 14.
- [23] Amap. (2025). National traffic event response index [Webpage]. Retrieved from <https://its.amap.com/welcome#/>
- [24] Harley, J. B. (1989). Deconstructing the map. Cartographica: The International Journal for Geographic Information and Geovisualization, 26(2), P. 13.
- [25] Foucault, M. (1977). Discipline and punish: The birth of the prison. New York: Pantheon Books. P. 194.
- [26] Deleuze, G. (1994). Difference and repetition. New York: Columbia University Press. P. 212–213.
- [27] Xinhua News. (2025, March 31). AI helps alleviate urban traffic congestion, and the industry chain continues to exert strength. Retrieved from <https://www.news.cn/20250331/24a8349cb9a54e5795af92f03339d5428/c.html>
- [28] Rouvroy, A., & Berns, T. (2013). Algorithmic governmentality and prospects of emancipation. Theory, Culture & Society, 31(4), P.163–180.
- [29] Amap Developer Platform. (n.d.). API and product descriptions (positioning, routing, road conditions, POI, promotion, etc.). Retrieved from <https://developer.amap.com/>
- [30] Parisi, L. (2013). Contagious Architecture: Computation, Aesthetics, and Space. Cambridge, MA: MIT Press. P. 8-9.
- [31] Amap. (n.d.-b). Smart traffic “diagnostic treatment” data service: Traffic impact assessment application of construction projects. Retrieved from <https://jiaotong.amap.com/?spm=379ed1f2.338df3b2.0.0.1ec87fe4k6tztX#/ctAPI>
- [32] Matern, S. (2017). Code and clay, data and dust: 5000 years of urban media history. Minneapolis: University of Minnesota Press. P. xii-xiii.
- [33] Zuboff, S. (2019). The age of surveillance capitalism: The fight for a human future at the new frontier of power. New York: PublicAffairs. P. 9.
- [34] Wang, H., & Xie, Q. (2023). Humanistic orientation and embodied imagery: A new exploration of Chinese traditional map-making activities as communication practice. Journal of Journalism and Communication Research, 30(5), P.35–46.
- [35] Rosa, H., & Trejo-Mathys, J. (2013). Social acceleration: A new theory of modernity. New York, NY: Columbia University Press. P. 216.
- [36] Wajcman, J. (2015). Pressed for time: The acceleration of life in digital capitalism. University of Chicago Press. P. 2.
- [37] Metz, D. (2022). The impact of digital navigation on travel behaviour. UCL Open Environment, 4, e034.
- [38] Bagabaldo, A. R., Gan, Q., Bayen, A. M., & et al. (2024). The impact of navigation applications on traffic network congestion and propagation dynamics. Data Science for Transportation, 6, 12.

- [39] Matern, S. (2017). *Code and clay, data and dust: 5000 years of urban media history*. University of Minnesota Press. P. xxxvii-xxxviii.
- [40] Jiang, Z., Dong, L., Wu, L., & Liu, Y. (2022). Quantifying navigation complexity in transportation networks. *PNAS Nexus*, 1(3), pgac126.
- [41] Harvey, D. (1989). *The condition of postmodernity: An enquiry into the origins of cultural change*. Blackwell. P. 240.
- [42] Harari, Y. N. (2014). *Sapiens: A brief history of humankind*. Harper. P. 116.
- [43] Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison* (A. Sheridan, Trans.). New York, NY: Vintage Books. P. 135–136.
- [44] Deleuze, G. (1992). Postscript on the societies of control. *October*, 59(Winter), 3–7. Cambridge, MA: MIT Press. P. 4.
- [45] Morozov, E. (2013). *To Save Everything, Click Here: The Folly of Technological Solutionism*. PublicAffairs. P. 6.
- [46] van Dijck, J. (2014). Datafication, dataism and dataveillance: Big data between scientific paradigm and ideology. *Surveillance & Society*, 12(2), 197-208.
- [47] Deleuze, G. (1990). Postscript on the societies of control. In *Pourparlers* (pp. 235-238). Columbia University Press. P. 5.