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Not All Places Are the Same: Computationally Surfacing Regional Experiential Differences from Location-Based Services

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Abstract

Not all places are the same, even when platforms make them look that way. Location-based services help people find unfamiliar places through generic categories, ratings, rankings, and attributes. These representations make places searchable, but they also flatten regional experience. A bakery in Louisiana may participate in the Carnival king cake tradition, while a bakery under the same platform label in Pennsylvania may support different objects, routines, and expectations. The category remains portable, but the experience does not. This thesis studies these variations as regional experiential differences. Using the Yelp Open Dataset and a guidebook-derived validation library of 91 documented regional experiences, this study tests whether such experiences can be recovered from review language for comparable place types across regions. The study finds evidence for 89 of the 91 cases, showing that regional experience is not absent from platform data but hidden by how platforms organize it. Surfacing these differences would help place-based systems move beyond search and ranking toward place understanding.

Keywords

**Human-Computer Interaction, Location-Based Services, Regional
Experiential Difference, Experiential Computing, Online Reviews, Place
Understanding**

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Not All Places Are the Same: Computationally Surfacing Regional
Experiential Differences from Location-Based Services

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By

Zhuoran Liu

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ABSTRACT

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Differences from Location-Based Services

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Not all places are the same, even when platforms make them look that way. Location-based services help people find unfamiliar places through generic categories, ratings, rankings, and attributes. These representations make places searchable, but they also flatten regional experience. A bakery in Louisiana may participate in the Carnival king cake tradition, while a bakery under the same platform label in Pennsylvania may support different objects, routines, and expectations. The category remains portable, but the experience does not. This thesis studies these variations as regional experiential differences. Using the Yelp Open Dataset and a guidebook-derived validation library of 91 documented regional experiences, this study tests whether such experiences can be recovered from review language for comparable place types across regions. The study finds evidence for 89 of the 91 cases, showing that regional experience is not absent from platform data but hidden by how platforms organize it. Surfacing these differences would help place-based systems move beyond search and ranking toward place understanding.

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Table of Contents

ABSTRACT	3
Acknowledgments	4
Table of Contents	5
List of Tables	7
List of Figures	8
Chapter 1. Introduction	9
Chapter 2. Background and Related Work	13
2.1. Place experience is situated and geographically variable	14
2.2. Location-based services make place operational but experientially narrow	15
2.3. Digital traces reveal regional patterns but rarely center situated experience	17
Chapter 3. Understanding Regional Experiential Differences	19
3.1. Conceptualizing Regional Experiential Difference	20
3.2. Drivers of Regional Experiential Difference	21
Chapter 4. Case Study of Regional Experiential Differences	24
4.1. Case Library Construction	24
4.2. Review Data and Measurement	27

	6
4.3. Evaluation	31
Chapter 5. Findings	34
5.1. Regional Experience Appears Inside Ordinary Places	34
5.2. Empirical Visibility of Regional Experiential Difference	35
5.3. Drivers of Regional Experiential Difference	37
5.4. Two Patterns in How Regional Difference Appears	39
5.5. Boundary Cases: What Platforms Cannot Easily See	41
Chapter 6. Discussion	44
6.1. Experiential Flattening and Representational Narrowing	45
6.2. Reviews as Public Infrastructure for Place Knowledge	46
6.3. Designing for Place Understanding	47
6.4. Scope and Limitations	48
6.5. Future Work	51
Chapter 7. Conclusion	53
References	54
Appendix A. Full Validation Case Library	60

List of Tables

- 5.1 **Representative evidence for regional experiential differences.**
 Each row is a guidebook-derived case specifying an anchor phrase t , a Yelp category c , and a target/control state pair. The two-bar glyph compares document-level normalized phrase frequency between the target and control states. Bolded terms mark the anchor phrases used for matching. Paraphrased review snippets from the target state illustrate typical usage without reproducing review text verbatim. 36
- A.1 **Full validation case library for cross-regional experiential differences within fixed categories.** This table reports all 91 guidebook-derived cases, including those shown in Table 5.1. Each row specifies a phrase t , a Yelp category c , and a target/control state pair. The two-bar glyph provides a visual comparison between the target and control states. Paraphrased review snippets from the target state illustrate typical usage without reproducing review text verbatim. Cases marked with [†] were not recovered under the evaluation criteria in §4.3. 60

List of Figures

- 4.1 **Pipeline overview.** The study begins with documented regional experiences from external sources. Each case is mapped to an anchor phrase, Yelp category, target state, and control state. Reviews are aggregated into state-category documents. The evaluation computes document-level normalized phrase frequencies, compares target and control density, and interprets review contexts to confirm how the phrase is used.

CHAPTER 1

Introduction

A bakery is not the same place everywhere. On a map, “Bakeries” is a stable category. In experience, the category changes with region. In Louisiana during Carnival season, a bakery may be organized around King Cake and the plastic baby hidden inside it. In Pennsylvania, bakery-going may point to soft pretzels, shoofly pie, or another set of local foods and routines. A boat tour in Florida may center on seeing manatees. A pub in Missouri may involve indoor smoking in ways that a pub across the border in Illinois does not. The platform label stays the same. The activity, objects, rules, and expectations around it change.

This thesis calls this problem *experiential flattening*. Location-based services (LBS) make unfamiliar places searchable through generic categories, ratings, rankings, and attributes. These systems are powerful because they make the world easy to search, compare, and choose from [9, 57, 43]. They also make unlike experiences look equivalent. A 5-star bakery in New Orleans becomes computationally comparable to a 5-star bakery in Philadelphia, even when the rituals, materials, and expectations that shape those bakeries are different. The system can tell a user which venue is nearby, popular, or highly rated. It rarely tells the user what this kind of place means here.

This is a Human-Computer Interaction (HCI) and Computer-Supported Cooperative Work (CSCW) problem because interfaces shape attention. They do more than retrieve information about places. They define what kinds of questions are easy to ask. A ranking

interface makes it natural to ask which bakery is best. It makes it difficult to ask how bakeries in Louisiana differ from bakeries in Pennsylvania. This produces *representational narrowing*. The world becomes easier to organize into rankings of “best” and “top” places, while regional forms of life and experience become harder to see.

HCI and geography have long distinguished between physical space and socially meaningful place [23, 16, 41]. A coordinate locates a venue. A category classifies it. A ranking orders it. Place includes more than location, category, and rank. It is made through situated activity, local norms, material arrangements, cultural expectations, and institutional rules. When location-based systems reduce place to portable labels and universal metrics, they flatten the practices through which places become meaningful.

Travel makes this flattening especially visible. Travelers often rely on familiar categories to move through unfamiliar environments. Yet travel becomes meaningful when those familiar categories stop behaving familiarly. As de Botton suggests, travel can involve a search for a different atmosphere, routine, and way of being in the world [7]. The important question is not only, “Where should I go?” It is also, “What happens here that would not happen in the same way elsewhere?” Current systems answer the first question far better than the second.

This thesis argues that the missing experiential layer is already present in review data. Reviews are usually treated as evaluations of businesses or signals of individual preference [9, 57, 43]. But reviewers also describe how experiences are lived in different place categories. They write about what they ordered, what surprised them, what rules they

followed, what was allowed, what objects stood out, and what felt normal. These descriptions form a public infrastructure for place knowledge. They translate local experience into usable information for strangers.

The gap is not data scarcity. It is a mismatch between what review data contains and what location-based systems usually ask of it. Prior work has used reviews and location-based social media to study language, culture, mobility, and urban life [25, 38, 33, 45]. Platform interfaces still organize review text mainly around popularity, quality, reputation, and preference matching. Ranking turns local exploration into a selection problem. The user is guided toward the best-rated option while the system hides how the same kind of place works differently elsewhere [14, 46].

This thesis defines the hidden layer as *regional experiential difference*—variations in the practices, expectations, material affordances, and institutional constraints associated with the same place category across geographic contexts. The category is the point of tension. It stays stable in the interface, while the human experience around it changes. The question is not what Louisiana, Pennsylvania, Florida, or Missouri is known for in general. The question is how bakeries, pubs, boat tours, restaurants, farmers’ markets, and other familiar categories become locally meaningful in different regions.

To ground this argument empirically, this thesis uses the Yelp Open Dataset and an external case library of 91 documented regional experiences [58]. The cases are drawn primarily from recent United States travel guidebooks. Together, they cover environmental affordances, cultural scripts, social defaults, and institutional constraints. The study examines whether these documented experiences appear in Yelp review text when the place category remains fixed and the region changes. It identifies review-based evidence

for 89 of the 91 cases. This result shows that regional experiential difference is not absent from platform data. It is hidden by the way platforms organize that data.

This thesis makes three contributions. First, it identifies experiential flattening as a representational problem in location-based services: generic categories, ratings, rankings, and attributes make places searchable and comparable, but can also make regional experiences appear interchangeable. Second, it develops an analytic framework with four drivers of regional experiential difference: environmental affordances, cultural scripts, social defaults, and institutional constraints. Third, it reframes reviews as public infrastructure for regional place understanding by showing that ordinary Yelp reviews contain evidence of regional experiential difference in 89 of 91 documented cases.

The broader argument is that digital maps and recommendation systems do not merely need more data about place. They need ways to represent the regional experiential differences already present in their data. If place-based computing continues to treat venues as ranked and interchangeable options, it will make the world easier to choose from and harder to understand. Surfacing regional experiential difference would help people ask what this kind of place means here, rather than only which option is nearby, popular, or highly rated.

CHAPTER 2

Background and Related Work

Place-based platforms know places in forms that are easy to compute. They know where a venue is, what kind of place it is, how many stars it has, which attributes describe it, and what reviewers have written about it. These forms of knowledge make places searchable, comparable, and recommendable. They also make place experience thinner. The same kind of place can provide different human experiences across geographic locations, but those differences are hard to see when systems organize places mainly through labels, ratings, rankings, and attributes.

This chapter situates that problem in relation to HCI, CSCW, urban informatics, location-based services, review mining, and geographic NLP. The central claim is that regional experiential difference is not simply a fact about geography. It is a fact about lived place. It appears in what people do, notice, order, follow, expect, repeat, and describe. Existing work gives us the pieces needed to study this problem, but those pieces have not been fully connected around regional experiential difference. HCI and geography explain why place is socially and experientially produced. Location-based services show how place becomes searchable and operational. Review mining and computational social science show that user-generated text can be analyzed at scale. Geographic NLP shows that language and activity vary across regions. What remains underdeveloped is an account of how the same kind of place can provide different human experiences across geographic locations.

2.1. Place experience is situated and geographically variable

HCI and CSCW have long distinguished between physical space and socially meaningful place. Harrison and Dourish argue that space provides the physical and structural setting for interaction, while place emerges through social understanding, activity, and shared convention [23]. Dourish later revisits this distinction in relation to mobile technologies, spatiality, practice, and mobility, emphasizing that place and space are dynamically enacted through use [16]. Suchman’s work on situated action makes the same point from another direction. Human activity cannot be fully understood as the execution of a predefined plan in a neutral setting [52].

This literature matters because location and type do not fully describe place experience. A coordinate locates a venue. A platform label classifies it. Neither tells us what people expect to do there, what objects matter, what rules shape participation, or what feels ordinary in that setting. Human geography similarly treats place as a site of attachment, memory, practice, and repeated meaning rather than as location alone [54]. From this perspective, a bakery, pub, market, or tour is not only a kind of venue. It is a setting where people participate in regionally shaped practices.

Place-specific computing, mobility research, and urban informatics extend this concern to interactive systems. Place-specific computing argues that systems should attend to the social, cultural, and material conditions through which places are enacted [35]. Work on mobility shows that moving through place involves cultural, social, and environmental forms of knowing, not only location tracking [12]. Urban informatics examines digitally mediated urban life through locative media, civic engagement, social media, mobile applications, and placemaking [21, 22].

Experience-centered design offers a related vocabulary. Experience-centered approaches argue that interaction should be understood through felt, situated, and socially meaningful experience, not only through task completion, system functionality, or object attributes [20, 34, 24]. Affinder shows how systems can represent higher-level situations and activities rather than only low-level contextual attributes [32]. Work on mobile tourism also shows that travelers use technologies, maps, guidebooks, and social coordination to make sense of places before, during, and after visits [13].

Together, these literatures establish the HCI foundation for this thesis. People do not encounter places as database records. They encounter them as situated experiences shaped by practices, expectations, rules, objects, materials, and other people. The same kind of place can therefore feel and function differently across geographic locations. This thesis builds on that view by asking how those differences are hidden or revealed in location-based platforms.

2.2. Location-based services make place operational but experientially narrow

Location-based services build on a long history of context-aware and mobile computing, where location is used to adapt information and services to the user [44, 1]. Contemporary point-of-interest recommender systems make place data operational by combining venue type, coordinates, ratings, attributes, reviews, user histories, social signals, temporal patterns, and geographic distance [57, 9, 43]. These systems have made it easier to find nearby places, compare options, and receive personalized suggestions.

This achievement also shapes what counts as useful knowledge about place. Ratings make places easy to evaluate. Attributes make them easy to filter. Reviews help users judge quality, fit, and reputation. Recommendation models combine these signals to estimate what a person may want next [57, 9, 43]. Similarity-based systems such as Frankenplace show that place search can move beyond exact labels by allowing users to search through mixtures of place features [4]. These systems expand access to place information, but they still largely organize places around search, evaluation, and selection.

The problem is not that these representations are useless. They are useful because they make large-scale place data manageable. The problem is that they can make different human experiences appear equivalent. A system can treat two bakeries, pubs, or markets as comparable records even when the activities, rules, objects, and expectations around them differ across regions. In this sense, ranking is not only a display choice. It shapes the kinds of questions users are invited to ask. It makes it easy to ask which place is nearby, popular, or highly rated. It makes it harder to ask how this kind of place works here, what people normally do there, or what a newcomer should understand before participating.

Prior work on location-based queries and recommendation shows the power of crowd knowledge for finding places [14]. Recent auditing work also shows that platform rankings shape what becomes visible to users and businesses [46]. This thesis extends that concern from visibility of venues to visibility of experience. The issue is not only which places are surfaced. It is also which forms of regional life become legible through the interface. When systems emphasize universal metrics, they can make the world easier to organize into rankings, while experiences that make a place different become harder to see.

2.3. Digital traces reveal regional patterns but rarely center situated experience

Online reviews are especially important because they contain more than evaluation. A reviewer may praise a restaurant, complain about a bar, or recommend a market, but the review often includes details about situated experience. Reviewers mention what they ordered, what surprised them, what rules they followed, what objects or foods stood out, what atmosphere they noticed, and what felt normal. These descriptions are not just opinions about businesses. They are public accounts of how people encounter places.

Review mining has often treated reviews as sources of preference, sentiment, deception signals, reputation, or recommendation features [9, 43, 38, 40]. This work is valuable, but it does not exhaust what review text can tell us. The same review that helps estimate whether a venue is good may also document what people do there. A mention of a local food, rule, ritual, or routine can point to how a familiar kind of place becomes a different experience in a particular region.

Social computing and computational social science have shown that large-scale online traces can support the study of social behavior, language, and urban life [11, 55, 25, 33]. Hovy et al. show that user review sites can support sociolinguistic analysis because review corpora contain substantial text linked to metadata such as location, time, language, and user information [25]. This thesis draws on that broader view of reviews as social data, but focuses on a different object: the regional variation of human experience in familiar kinds of places.

Geographic NLP and computational social science provide another important foundation. Prior work has studied geographic variation in online language, regional food

and drink habits, urban dynamics, thematic regions, and geographically indicative text [17, 29, 45, 15, 33, 2, 3]. Corpus comparison methods also show how features can be identified as disproportionately associated with one corpus, group, or region relative to another [28, 37, 2].

These studies show that digital traces can reveal meaningful spatial and cultural patterns. Many operate at the level of cities, neighborhoods, broad regions, or general activity patterns. They ask what characterizes an area, what themes appear in a place, or what linguistic features are associated with a region. Topic modeling and thematic-signature approaches can summarize large text collections through dominant themes [10, 3]. Recommender systems can use text and metadata to estimate relevance, fit, or preference [57, 9, 43]. These approaches make regional and textual patterns visible, but they do not usually center the situated experience of the same kind of place across geography.

This leaves a specific gap. HCI and CSCW explain why place is lived and socially produced. Location-based services explain how place becomes searchable and recommendable. Review mining shows that platform text can be analyzed at scale. Geographic NLP shows that digital language varies by region. What remains missing is a human-centered account of regional experiential difference, one that explains how the same kind of place can support different practices, expectations, affordances, and constraints across geographic locations. This thesis addresses that gap by treating reviews as public descriptions of situated place experience and by showing how regional experiential differences can be surfaced from the data that location-based platforms already collect.

CHAPTER 3

Understanding Regional Experiential Differences

The previous chapters argued that location-based services often make place searchable by making it thin. They represent places through stable labels, ratings, rankings, and attributes. These representations help users find places, but they also hide a central feature of place experience, which is that the same kind of place can support different human experiences across geographic locations.

This chapter develops the core concept of the thesis, *regional experiential difference*. The concept names the variation in what people do, notice, expect, follow, and treat as normal when they encounter the same kind of place in different regions. A bakery, pub, shopping center, restaurant, market, or boat tour may remain recognizable as a kind of place. The human experience around it can still change through local practices, materials, histories, social expectations, and rules.

Online reviews matter because they contain public descriptions of those experiences. Reviewers write about what they ordered, what they saw, what surprised them, what rules they followed, and what felt ordinary. These descriptions do more than evaluate businesses. They record how people participate in place. This thesis uses those descriptions to ask a larger HCI question of how systems might surface the regional experiences that current place representations often flatten.

3.1. Conceptualizing Regional Experiential Difference

This thesis defines *regional experiential difference* as variation in the practices, expectations, material affordances, and institutional constraints through which the same kind of place is experienced across geographic contexts. The definition builds on HCI and CSCW work that distinguishes physical space from socially meaningful place [23, 16]. A coordinate locates a venue. A platform label classifies it. Neither explains what people do there, what objects matter, what rules shape participation, or what makes the experience locally meaningful. Regional experiential difference has three important properties.

First, it is *experiential*. It appears in actions, objects, routines, expectations, and forms of participation. A bakery becomes locally meaningful through what people buy, when they buy it, how they share it, and what seasonal or social practices surround it. A pub becomes locally meaningful through what is allowed inside, how people gather, and what conduct feels normal.

Second, it is *regional*. Geography matters because places are shaped by climate, ecology, agriculture, law, history, migration, religion, tourism, and local social life. A boat tour in Florida may be organized around manatee encounters [18]. A shopping trip in Delaware may be shaped by tax-free expectations [49]. These differences are not just facts about location. They change what people experience when they enter a place.

Third, it is *place-type specific*. The point is not to summarize what a state or city is known for in general. The point is to understand how a familiar kind of place becomes different somewhere else. Louisiana is not only distinctive in the abstract. Louisiana bakeries become distinctive when king cake becomes part of ordinary bakery experience during

Carnival season [50, 48]. Pennsylvania restaurants become distinctive when BYOB becomes part of how diners plan a meal [56]. The same kind of place remains recognizable, but the experience changes.

This focus matters for place-based computing because users need to know not only where places are, but also how to participate in them. A system that shows only labels, ratings, and rankings can tell a user which place is nearby or highly rated. It cannot explain what is possible, expected, normal, or required there. Regional experiential difference names the part of place experience that disappears when systems treat places as interchangeable records.

3.2. Drivers of Regional Experiential Difference

Regional experiential differences emerge through recurring forces that shape how people encounter places. This thesis organizes these forces into four drivers, including environmental affordances, cultural scripts, social defaults, and institutional constraints. These drivers describe how the same kind of place can become a different human experience across regions.

- **Environmental affordances.** Environmental affordances change what a place can offer. Local landscapes, climates, species, agricultural conditions, and material surroundings make some activities or objects more available and more salient. A boat tour organized around manatee encounters in Florida shows how local ecology can become part of the expected experience of a familiar place type [18].
- **Cultural scripts.** Cultural scripts change what a place means. Regional histories, traditions, cuisines, rituals, and symbolic objects can give ordinary places

locally specific significance. King cake in Louisiana bakeries is not only a bakery product. It is tied to Carnival season, Mardi Gras practice, and a recognizable regional routine [50, 48].

- **Social defaults.** Social defaults change what feels normal. Shared scenes, audience expectations, local routines, and patterns of use can make certain actions feel ordinary in one region and less expected elsewhere. A bar, cafe, music venue, or restaurant may become organized around locally recognizable ways of gathering, ordering, watching, listening, or participating.
- **Institutional constraints.** Institutional constraints change what a place permits or requires. Laws, policies, taxes, licenses, and formal rules can become part of everyday customer experience. BYOB restaurants in Pennsylvania and tax-free shopping in Delaware show how institutional arrangements can shape ordinary participation in restaurants and shopping centers [56, 49].

These drivers are important because they move the thesis beyond a vague idea of local color. Regional experiential difference is not just that a place has a distinctive atmosphere. It is that human experience is structured by material conditions, cultural meanings, social expectations, and institutional rules. These forces change what people can do, what they expect to find, and how they understand the same kind of place.

The drivers also clarify why regional differences matter for HCI and CSCW. Systems that represent places only through generic labels and universal metrics lose the forces that shape participation. Environment becomes scenery. Culture becomes an attribute. Social expectation becomes review sentiment. Law becomes a hidden background condition. The

result is experiential flattening. The system still knows where places are and how they rank, but it fails to show how people experience them differently.

CHAPTER 4

Case Study of Regional Experiential Differences

The previous chapters argued that regional experiential difference is flattened when location-based services represent places through stable labels, ratings, rankings, and attributes. This chapter tests that claim empirically. If the same kind of place can support different human experiences across geographic locations, then some of those differences should appear in the language people use to describe those places.

The case study uses Yelp reviews to examine whether regional experiences documented outside Yelp are visible in platform data. It first builds an external case library from travel guidebooks and related policy sources. It then measures whether those documented experiences appear more strongly in reviews from the target region than in reviews from a comparison region, while keeping the same kind of place fixed. The purpose is to test whether ordinary review corpora already contain evidence of this experiential variation.

4.1. Case Library Construction

4.1.1. External Reference Sources

This thesis uses travel guidebooks as external reference points for constructing the validation case library. Guidebooks are useful here because they describe what travelers may notice as regionally distinctive, including foods, seasonal practices, local routines, landscapes, social scenes, and everyday rules of participation. Legal and policy sources

are used for cases where formal rules shape the experience, such as tax policy, alcohol regulation, or smoking law.

Starting from external sources keeps the evaluation from using Yelp to both generate and confirm the same cases. The case library begins with experiences documented outside the review corpus. Yelp reviews are then used to test whether those documented experiences become visible in the public language of place description.

The library is a validation instrument. It captures documented, traveler-facing, and reviewable experiences. It does not attempt to define the total culture of a state. Its role is to provide a structured set of regional experiences that can be tested against platform data.

4.1.2. Candidate Extraction

The case library was constructed from recent U.S. travel guidebooks published between 2023 and 2025 for states represented in the Yelp Open Dataset. The sampling focused on state-level overview material, including sections on food, culture, landscape, shopping, nightlife, transportation, and everyday practices. City-specific chapters, named attractions, and single-venue recommendations were used only when they pointed to a broader type of experience. A candidate experience was included when it met three criteria.

- **Place-type grounded.** The experience had to be associated with a recognizable kind of place that could plausibly map to a Yelp category, such as bakeries, restaurants, bars, shopping centers, farmers’ markets, museums, or boat tours.

- **Text-expressible.** The experience had to be describable through concrete actions, objects, rules, or expectations that reviewers could plausibly mention. Examples include what people order, buy, see, do, bring, or are required to do.
- **Regionally framed.** The source had to present the experience as characteristic of, commonly encountered in, or especially associated with the target region. The experience did not need to be unique to that region, but it needed to be regionally meaningful.

Each accepted candidate was recorded as a tuple (t, c, r_T) , where t is the anchor phrase describing the experience, c is the mapped Yelp category, and r_T is the target state. The anchor phrase represents the concrete object, practice, or rule most likely to appear in review language. For example, a Louisiana bakery practice may be represented through **king cake**, while a Delaware shopping practice may be represented through **tax-free**.

Candidate extraction used a bounded sampling target. For each state, the goal was to collect a comparable number of usable cases, typically around 8–10 after applying the selection criteria. This kept extraction effort consistent across states and avoided overselecting only the most striking examples.

4.1.3. Filtering and Control State Selection

The guidebook pass produced an initial pool of 105 candidate cases. These candidates were filtered for availability in the Yelp Open Dataset. A case was retained only if the mapped Yelp category had sufficient review coverage in the target state. This filter removed 14 candidates whose place types were absent, too sparse, or not represented in a usable way in the Yelp data.

The final validation library contains 91 cases. Each case is represented as a tuple (t, c, r_T, r_C) , where t is the anchor phrase, c is the Yelp category, r_T is the target state, and r_C is the control state. The full case library is reported in Appendix A.

For each retained case, a paired control state was selected before any phrase-frequency computation. Selection used only external documentation and category-coverage availability, not observed Yelp phrase counts. The control state needed sufficient Yelp coverage for the same mapped category. The consulted guidebook material for that state also could not frame the target experience as characteristic in the same overview context. This creates an external comparison baseline. It is a contrast claim, not an absence claim. The target state is externally documented as associated with the experience, while the control state is not documented that way in the consulted sources.

The final library covers the four drivers introduced in Chapter 3, which are environmental affordances, cultural scripts, social defaults, and institutional constraints. These drivers describe the forces that make the same kind of place support different human experiences across regions.

4.2. Review Data and Measurement

4.2.1. Yelp Review Data

This thesis uses the Yelp Open Dataset [58], licensed under the Yelp Dataset License Agreement for academic use. The dataset contains approximately 150,000 businesses and 7 million reviews across 13 U.S. states¹.

¹States included: AZ, CA, DE, FL, ID, IL, IN, LA, MO, NJ, NV, PA, TN.

The analysis does not reproduce verbatim user-generated review text. When review language is used as evidence, this thesis reports author-written paraphrases based on review-context interpretation. These paraphrases are screened to avoid personally identifying or sensitive information.

Yelp categories are used as a practical grouping device for reviews about a recognizable kind of place. The analysis is not about the category label itself. It is about how the human experience around the same kind of place changes across regions.

For each state r and Yelp category c , all reviews associated with businesses in that category and state are aggregated into a single state-category document. The analysis treats this document as the textual representation of how reviewers collectively describe that kind of place in that region. The number of reviews is not the denominator of the frequency measure. It is used only as a coverage filter. State-category pairs with fewer than 100 reviews are excluded so that the aggregated document is not driven by a small number of sparse observations.

4.2.2. Anchor Phrase Matching

Each validation case specifies an anchor phrase t derived from the external documentation. Review text and anchor phrases are lowercased before matching. Phrase matching is performed on the aggregated state-category document. Multiword anchors are matched as phrases so that an expression such as **king cake** is not reduced to the generic word **cake**. If the anchor phrase appears multiple times in the aggregated document, each occurrence contributes to the phrase count.

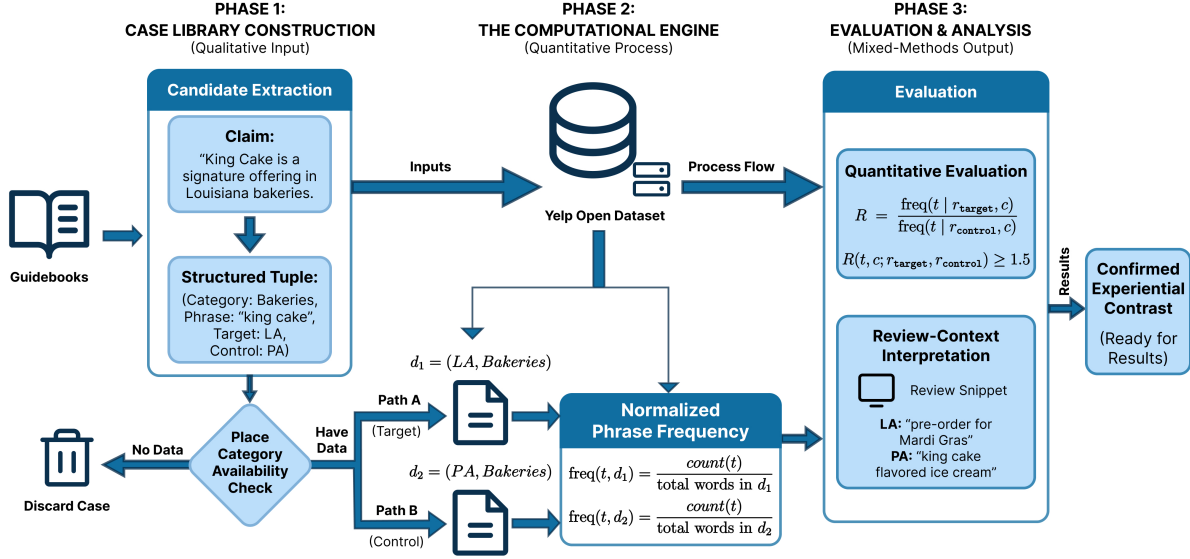


Figure 4.1. **Pipeline overview.** The study begins with documented regional experiences from external sources. Each case is mapped to an anchor phrase, Yelp category, target state, and control state. Reviews are aggregated into state-category documents. The evaluation computes document-level normalized phrase frequencies, compares target and control density, and interprets review contexts to confirm how the phrase is used.

This matching strategy is intentionally direct. The case library already identifies the documented object, practice, rule, or expectation. The empirical question is whether that documented experience becomes textually denser in review language for the relevant kind of place and region.

4.2.3. Document-Level Normalized Frequency

For each state r and Yelp category c , all review text associated with businesses in that category and state is concatenated into a single state-category document. Let $d_{r,c}$ denote this aggregated document. The analysis computes the normalized frequency of anchor phrase t in $d_{r,c}$:

$$f(t, r, c) = \frac{\text{count}(t, d_{r,c})}{|d_{r,c}|}$$

where $\text{count}(t, d_{r,c})$ is the total number of times phrase t appears in the aggregated state-category document, and $|d_{r,c}|$ is the total number of tokens in that document. If the same phrase appears multiple times in one review, each occurrence is counted. This matches the document-level logic of the analysis: reviews are not treated as separate voting units, but as text contributing to a shared category-region corpus.

This normalization prevents larger state-category corpora from appearing more distinctive simply because they contain more text. The measure asks how dense the anchor phrase is within the aggregated review language for a given kind of place in a given region.

For each validation case, the target state is compared with the control state while the Yelp category remains fixed:

$$R(t, c, r_T, r_C) = \frac{f(t, r_T, c)}{f(t, r_C, c)}$$

where r_T is the target state and r_C is the control state. The ratio measures relative textual density. It asks whether the documented experience appears more strongly in the aggregated review language for the target state than in the aggregated review language for the control state, within the same kind of place.

4.3. Evaluation

4.3.1. Case Recovery Criterion

A case is classified as recovered when the anchor phrase appears in the target state-category document and the target normalized frequency exceeds the control normalized frequency by the evaluation threshold:

$$\text{count}(t, d_{r_T, c}) > 0 \quad \text{and} \quad \left(f(t, r_C, c) = 0 \quad \text{or} \quad \frac{f(t, r_T, c)}{f(t, r_C, c)} \geq 1.5 \right).$$

The threshold $R \geq 1.5$ requires the anchor phrase to be at least 50% denser in the target state’s aggregated review language than in the control state’s aggregated review language, within the same Yelp category. When the control frequency is zero, any nonzero target frequency is treated as one-sided evidence of target-region visibility.

A recovered case means that a documented regional experience has become visible in the ordinary language people use to describe a familiar kind of place. The same kind of place is being reviewed, but the density of the relevant experiential phrase changes across regions.

4.3.2. Review-Context Interpretation

The contrast ratio shows that an anchor phrase is more visible in one region. Review-context interpretation shows how the phrase is being used. For each recovered case, a bounded set of target-region review contexts containing the anchor phrase was read. When control-region mentions existed, control contexts were also checked.

This step verifies that the anchor phrase refers to the practice, object, rule, or expectation specified by the case library. For example, **king cake** should refer to the bakery item and seasonal practice documented in the external sources. It should not be counted as evidence if it appears only as an unrelated business name, metaphor, or generic expression.

The paraphrased snippets in Appendix A are derived from this context interpretation. They make the quantitative signal legible by showing typical review usage without reproducing user-generated text verbatim.

4.3.3. Worked Example: King Cake in Louisiana Bakeries

A worked example illustrates the evaluation logic. Travel guidebooks describe king cake as a culturally recognizable Louisiana bakery item associated with Carnival and Mardi Gras season [50, 48]. This case is represented as:

$$(t = \text{king cake}, c = \text{Bakeries}, r_T = \text{LA}, r_C = \text{PA}).$$

The analysis aggregates bakery reviews in Louisiana and Pennsylvania. It then computes the normalized frequency of **king cake** in the aggregated bakery-review document for each state. If the phrase appears in Louisiana bakery reviews and the Louisiana mention rate is at least 1.5 times the Pennsylvania mention rate, the case is classified as recovered.

The review-context interpretation then reads examples of **king cake** mentions. This confirms that the phrase refers to the bakery item and seasonal practice described in the case library. The contexts also show what the platform label alone cannot show. To Yelp,

both corpora are **Bakeries**. In experience, the Louisiana corpus reveals a seasonal practice of ordering, picking up, sharing, and bringing king cake during Mardi Gras season.

This chapter provides the empirical bridge between the concept of regional experiential difference and the findings that follow. It turns the thesis argument into a testable claim: documented regional experiences should be visible in review language when people describe the same kind of place across different geographic locations.

CHAPTER 5

Findings

This chapter reports what becomes visible when documented regional experiences are tested against Yelp review language. The main finding is straightforward. Under this validation setup, many externally documented regional experiences become visible in Yelp review language. Across 91 guidebook-derived cases, the study recovered review-based evidence for 89 cases. These cases show that the same kind of place can support different human experiences across geographic locations.

The findings matter because the recovered experiences do not appear only in famous attractions or named destinations. They appear inside ordinary places such as bakeries, boat tours, pubs, restaurants, gas stations, cafés, shopping centers, and farmers’ markets. These are the kinds of places that location-based services routinely make searchable, comparable, and rankable. The review language shows that they are also sites of local practice, expectation, rule, routine, and material difference.

5.1. Regional Experience Appears Inside Ordinary Places

Table 5.1 reports a representative subset of recovered cases. Each row shows a guidebook-derived regional experience, the kind of place in which it appears, the target and control states, and paraphrased review evidence from the target state. The contrast glyph compares the document-level normalized phrase frequency in the target and control state. Bolded terms mark the anchor phrases used for matching.

This table summarizes a representative subset of the recovered cases. Across different regions and place types, review language repeatedly shows the same structure. The place type remains recognizable, but the human experience around it changes. A bakery becomes tied to king cake in Louisiana. A boat tour becomes tied to manatee encounters in Florida. A shopping center becomes tied to tax-free checkout in Delaware. A restaurant becomes tied to BYOB planning in Pennsylvania. The platform can keep the same label, but the experience is not the same.

5.2. Empirical Visibility of Regional Experiential Difference

Across the 91 cases in the validation library, 89 met the recovery criterion described in §4.3. This corresponds to a case-recovery rate of 97.8%. The result shows that documented regional experiences are not rare exceptions hidden outside platform data. They are often visible in the ordinary language people use to describe familiar places.

The recovery criterion requires more than occurrence in the target corpus. The anchor phrase must appear at a higher normalized rate in the target state than in the paired control state, while the Yelp category remains fixed. This makes the contrast interpretable as a difference in how reviewers describe comparable place types across regions.

This result supports the central empirical claim of the thesis. Review corpora already contain many of these contrasts, but platform interfaces rarely organize them as regional evidence. Reviewers have already written many of the details that make places locally meaningful. The system usually does not organize those details as regional experience.

Table 5.1. **Representative evidence for regional experiential differences.** Each row is a guidebook-derived case specifying an anchor phrase t , a Yelp category c , and a target/control state pair. The two-bar glyph compares document-level normalized phrase frequency between the target and control states. Bolded terms mark the anchor phrases used for matching. Paraphrased review snippets from the target state illustrate typical usage without reproducing review text verbatim.

Case / anchor phrase phrase t	Category c	Target / Control	Contrast	Paraphrased review snippets Target
ENVIRONMENTAL AFFORDANCES				
Buy avocado [19]	Farmers Market	California Idaho		Picked up fresh local avocados at the market this week.
Encounter a manatee [18]	Boat Tours	Florida California		Went on a manatee tour and got a close-up sighting.
View desert plants [42]	Botanical Gardens	Arizona California		Loved the desert plant displays, especially the Sonoran varieties.
Take a swamp tour [50]	Tours	Louisiana California		Took a swamp tour, saw gators, and heard plenty of Cajun lore.
CULTURAL SCRIPTS				
Have a king cake [48, 50]	Bakeries	Louisiana Pennsylvania		Picked up a king cake for Mardi Gras season.
Go line dancing [47]	Dance Studios	Tennessee Illinois		Went line dancing with country music and a friendly crowd.
Listen to live jazz [50, 48]	Music Venues	Louisiana California		Great place to catch live jazz in the evening.
Go wine tasting [19]	Wineries	California Arizona		Went wine tasting and sampled a wide range of local bottles.
Eat duck tamales [42]	Mexican	Arizona Illinois		Tried duck tamales as an appetizer and they were memorable.
SOCIAL DEFAULTS				
Get picon punch [36]	Basque	Nevada Idaho		Started with a picon punch , a local pre-dinner ritual.
Eat vegan pastries [19]	Cafés	California Illinois		Found a great selection of vegan pastries .
Order alligator dishes [18]	Cajun/Creole	Florida Illinois		Tried an alligator dish, something I would not order back home.
INSTITUTIONAL CONSTRAINTS				
tax-free shopping [49]	Shopping Centers	Delaware New Jersey		Nice perk, the total is tax-free at checkout.
smoking inside [26, 27]	Pubs	Missouri Illinois		This bar still allows smoking inside .
Get drive-thru daiquiri [50, 30]	Bars	Louisiana Tennessee		Grabbed a drive-thru daiquiri , which feels uniquely local.
BYOB [56]	Restaurants	Pennsylvania California		This restaurant is BYOB , so you can bring your own bottle.

5.3. Drivers of Regional Experiential Difference

The recovered cases also map back onto the four drivers introduced in §3.2. These drivers describe how the same kind of place becomes a different human experience across geographic locations.

5.3.1. Environmental Affordances

Environmental affordances change what a place can offer. Local ecology, landscape, climate, species, and agricultural conditions shape what people encounter and what they describe. In these cases, regional difference is not background scenery. It becomes part of the experience itself.

Florida **Boat Tours** reviews make manatee encounters visible as part of the tour experience. Arizona **Botanical Gardens** reviews foreground desert plants and Sonoran varieties. California **Farmers Market** reviews make avocados visible as local produce. In each case, the kind of place remains familiar, but the material world around it changes what the place affords.

In these examples, ecology and agriculture are not background context. They determine what reviewers describe as part of the visit. They shape what people expect to see, buy, or do. A boat tour is not only a boat tour. In a particular ecology, it becomes a way to encounter a particular animal, landscape, or local environment.

5.3.2. Cultural Scripts

Cultural scripts change what a place means. Regional histories, traditions, foodways, rituals, and symbolic objects can make an ordinary place type locally specific. The place remains recognizable, but the activity inside it carries a regional script.

King cake in Louisiana **Bakeries** is the clearest example. The phrase appears as an ordinary purchase reference tied to Mardi Gras season. The bakery is not only a place to buy baked goods. It becomes part of a seasonal regional practice. Other cultural cases include line dancing in Tennessee **Dance Studios**, live jazz in Louisiana **Music Venues**, wine tasting in California **Wineries**, and duck tamales in Arizona **Mexican** restaurants.

Across these cases, the local object or activity gives the place a more situated meaning. The platform label can identify the place type, but it cannot explain the regional script that makes the experience meaningful.

5.3.3. Social Defaults

Social defaults change what feels normal. These cases involve shared scenes, participation routines, ordering habits, audience expectations, and locally recognizable ways of gathering. The experience may be possible elsewhere, but it becomes more ordinary, expected, or available in the target region.

Picon punch appears in Nevada **Basque** restaurant reviews as a routine ordering practice and pre-dinner ritual. Vegan pastries in California **Cafés** point to menu expectations that reviewers treat as part of the café experience. Alligator dishes in Florida **Cajun/Creole** restaurants show how a food item can become an expected form of regional participation for visitors.

These cases are important because regional difference is not always a hard boundary. Sometimes it appears as a shift in what people treat as normal. Review language captures those shifts because reviewers often write from the standpoint of participation. They describe what they ordered, what they expected to find, what surprised them, and what seemed ordinary in that place.

5.3.4. Institutional Constraints

Institutional constraints change what a place permits or requires. Laws, policies, taxes, licenses, and formal rules can become part of everyday customer experience. These cases are especially legible because institutions often shape what people are allowed to do, required to do, or expected to plan around.

Tax-free shopping in Delaware **Shopping Centers** appears as part of the checkout experience. BYOB in Pennsylvania **Restaurants** becomes a planning detail for diners. Indoor smoking in Missouri **Pubs** appears as a concrete feature of the bar experience in contrast with the Illinois comparison corpus. Drive-thru daiquiris in Louisiana **Bars** show how local law and commercial format can become part of a regional drinking practice.

These examples make institutional rules visible as customer-facing experience. They enter experience directly. They shape what people bring, buy, avoid, expect, and describe.

5.4. Two Patterns in How Regional Difference Appears

The four drivers explain where regional experiential differences come from. The recovered cases also show two broader patterns in how these differences appear in review language.

5.4.1. Hard Differences: What a Place Can Offer or Allow

Some differences are sharp because they depend on local ecology, material availability, or formal permission. Manatee encounters, desert plant displays, tax-free shopping, and indoor smoking are examples. These experiences are not evenly distributed across regions. They depend on conditions that make the experience available, visible, permitted, or prohibited.

In these cases, review language captures more than preference. Reviewers are not simply saying that one place is better than another. They are describing what a place can offer, allow, or require in a specific geographic context. This is a strong form of regional experiential difference because the contrast often appears as target-region presence and weak or absent control-region presence.

5.4.2. Soft Differences: What a Place Makes Central or Expected

Other differences are softer but equally important. The experience may be possible in more than one region, but it becomes more central to how people describe the place in the target region. King cake, wine tasting, live jazz, picon punch, vegan pastries, and BYOB are examples. These are not always impossible elsewhere. They become more expected, more visible, or more routine in a particular regional setting.

This pattern shifts the analysis from availability to expectation. A place may have the same platform label across states, while the ordinary activities associated with it change. Review language makes this visible because reviewers describe what they seek out, what they assume will be available, what they recommend, and what they treat as normal.

Together, these two patterns explain why the contrast matters for HCI. Some differences change what a place can materially or legally support. Others change what a person expects, values, or knows how to do there. Both are lost when systems treat places as interchangeable records organized mainly by label, rating, and rank.

5.5. Boundary Cases: What Platforms Cannot Easily See

The unrecovered and excluded cases are not just errors. They clarify what current platform data can and cannot make visible. They show that regional experience becomes computationally visible only when it is both described by reviewers and supported by the platform’s way of organizing places.

5.5.1. Unrecovered Validation Cases

Two cases in the 91-item validation library did not meet the recovery criterion.

The first case was *fiery peppers* in Arizona **Tacos** restaurants. The phrase appeared more frequently in the target region than in the Indiana control region, but the contrast was not strong enough to pass the threshold. This case shows that some documented experiences may be present in review language without being concentrated enough to appear as a strong regional signal.

The second case was *drive-thru* weddings in Nevada **Wedding Chapels**. The category had usable review data, but reviewers did not discuss the drive-thru format strongly enough for the case to be recovered. The experience may be externally documented, but reviewers may focus on ceremony, staff, venue aesthetics, or the wedding event more broadly.

These two cases show two different boundaries. Some phrases are too broadly distributed to become distinctive under the evaluation rule. Some experiences are real and documented, but not central to how reviewers describe the place.

5.5.2. Excluded Candidates and Taxonomy Boundaries

Fourteen guidebook-derived candidates were excluded before evaluation because they could not be mapped to a sufficiently usable Yelp category in the relevant state. These exclusions are not failures of phrase recovery. They show a deeper representational boundary.

Most exclusions involved natural features described through state parks, national parks, preserves, or specific landscape settings. Guidebooks discussed cases such as bird migrations or karst geography, but the Yelp data for the relevant states did not provide sufficient coverage under precise categories such as **State Parks** or **National Parks**. Broader categories such as **Parks** were sometimes available, but they were too general to isolate the specific experience.

The remaining exclusions involved Indigenous cultural experiences. These were difficult to map to a single platform category because they can span museums, cultural centers, galleries, retail shops, tours, public sites, and forms of place that do not fit neatly into a commercial venue taxonomy. Forcing them into one category would repeat the flattening problem this thesis critiques.

These exclusions are substantively important. They show that platform taxonomies do not merely store place data. They shape which regional experiences can be recovered through that data. Some experiences align with existing business categories and become

easier to surface. Others cut across categories, occur outside commercial venues, or depend on place forms that the platform represents sparsely. The boundary cases therefore reinforce the larger argument of the thesis: the problem is not only whether platforms have enough data. It is whether their representations can preserve the forms of human experience that make places different.

CHAPTER 6

Discussion

The findings point to a design problem rather than simply a data problem. Yelp reviews already contain traces of local practice, but location-based interfaces usually convert those traces into venue-level signals such as ratings, rankings, and attributes [57, 9, 43]. The result is that platforms preserve category sameness while hiding experiential contrast.

The validation results make this problem concrete. Across 91 documented regional experiences, 89 met the recovery criterion under the evaluation procedure. These contrasts are therefore not absent from platform data. They are pushed into the background by the way that data is organized. Reviewers already describe what they ordered, saw, brought, followed, avoided, expected, and treated as normal, while platform interfaces often compress those descriptions into signals of quality, popularity, preference, and rank.

Place-based systems do more than help people find places; they shape what people can know about them. A ranking interface can tell a user which bakery is nearby or highly rated. It rarely explains why a bakery visit may involve king cake and Mardi Gras ordering in Louisiana but different routines in Pennsylvania. The same interface can rank pubs, restaurants, tours, and shopping centers, but it rarely explains how rules, routines, objects, and expectations vary across regions. This is experiential flattening as a design problem.

6.1. Experiential Flattening and Representational Narrowing

HCI and CSCW have long argued that place is more than physical location. Place is produced through situated activity, social convention, material setting, and local practice [23, 16, 52]. The findings of this thesis bring that argument into location-based services. They show that digital place representations can preserve the label while losing the experience.

The same kind of place does not mean the same human experience everywhere. A bakery can become part of Mardi Gras practice through king cake in Louisiana. A pub can become shaped by indoor smoking rules and expectations in Missouri. A shopping center can become tied to tax-free checkout in Delaware. These are not decorative local details. They change what people expect, what they do, what they notice, and how they prepare to participate.

This is where ranking creates representational narrowing. Ranking privileges choice questions: which place is closest, highest rated, most popular, or most similar to places I already like. These are useful questions, but they leave comparison questions largely unsupported: what is normal here, what should a newcomer expect, and what changes across a regional boundary? These regional contrasts require another kind of question about what happens here that would not happen in the same way elsewhere.

This distinction matters for design. A system that treats places only as ranked options teaches users to see the world as a set of comparable choices. A system that surfaces these differences helps users see places as settings for different forms of human activity. The design problem is not simply to improve recommendation accuracy. It is to expand what place-based systems make visible, queryable, and understandable.

6.2. Reviews as Public Infrastructure for Place Knowledge

The findings also change how reviews should be read. Reviews are usually collected and displayed as evaluations of businesses. They help users judge quality, convenience, trustworthiness, and fit. Review mining has often used them for preference modeling, recommendation, deception detection, opinion mining, and sentiment analysis [9, 43, 38, 40]. The findings show another value of review text. Reviews are public descriptions of how people encounter places.

Reviewers do more than rate businesses. They describe how to participate. They mention what to order, what to bring, what rules apply, what seasonal practices matter, what objects stand out, what social scenes exist, and what would surprise a newcomer. When a reviewer mentions BYOB, tax-free checkout, indoor smoking, king cake, a swamp tour, or a manatee encounter, the review is doing more than expressing preference. It is making a form of local experience available to others.

This practical publicness makes reviews especially important for HCI and CSCW. Reviewers are not writing ethnography, but they are often writing for future participants. They translate situated experience into usable public information. Prior work on social computing and digital traces has shown that platform data can support large-scale analysis of language, social behavior, and urban life, while also reflecting participation and visibility biases [25, 11, 55, 33]. This thesis builds on that view by treating reviews as public infrastructure for place knowledge.

The missed opportunity is that this infrastructure remains underused. A review corpus may contain thousands of small descriptions of regional practice, but the interface still foregrounds stars, lists, rankings, and generic labels. Local knowledge exists in the corpus

but remains difficult to ask for. Regional experiential difference gives systems a way to reorganize that knowledge around human experience.

6.3. Designing for Place Understanding

Place-based systems should support place understanding, not only place selection. A user should be able to ask how the same venue type is experienced differently across regions. A traveler might ask what bakeries are like in Louisiana compared with Pennsylvania, what to expect from bars in Missouri compared with Illinois, or what shopping centers in Delaware make possible that shopping centers elsewhere do not.

Such systems would not need to replace rankings. They would change what appears alongside rankings. A search result could explain regionally visible practices, objects, rules, and expectations. A bakery result in Louisiana could surface king cake and Mardi Gras ordering practices. A restaurant result in Pennsylvania could surface BYOB planning. A shopping result in Delaware could surface tax-free checkout. A pub result in Missouri could surface indoor smoking expectations. These explanations would help users understand the setting they are entering.

This direction connects to work on mobile tourism and place-specific computing, which has shown that people use digital systems not only to locate destinations, but also to plan, coordinate, and make sense of unfamiliar places [13, 35]. Regional experiential difference adds a specific design target. Systems should help people understand what becomes possible, expected, normal, or required in a place.

A system designed around this idea should also show provenance. Regional experiential differences should not be presented as fixed traits of a state or community. They should

be shown as evidence from a particular corpus, place type, region, and comparison. For example, a system should not say that a state simply “is” a certain way. It could say that reviews of this kind of place in this region mention a practice more densely than reviews of the same platform category in a comparison region. This makes the explanation useful without turning partial platform evidence into a stereotype.

One interactional change would be to make regional contrast directly queryable. Users should not only search for the best option. They should be able to ask what changes when they cross a regional boundary. This would move place-based systems from ranked lists toward situated explanations. It would help people understand how ordinary places become locally meaningful.

6.4. Scope and Limitations

The findings should be read within the scope of the data, sources, and measurement used in this thesis. These limitations do not weaken the central argument. They define where the argument applies and where future work should extend it.

6.4.1. Guidebooks as Traveler-Facing Sources

The case library is built from travel guidebooks and related policy sources. This gives the study an external reference point and keeps the evaluation from discovering cases directly from Yelp. Guidebooks are also selective texts. They are edited, traveler-facing, and often oriented toward experiences that are legible to visitors, such as distinctive foods, scenic encounters, shopping practices, public rituals, and visible rules.

The validation library therefore captures documented, visitor-facing, and place-type grounded experiences. It does not capture every practice that matters to residents, every contested history, or every form of local life that guidebooks ignore. The claim is that Yelp reviews can surface many documented regional experiences of this kind. It is not a claim that guidebooks define regional culture.

6.4.2. Review Data and Platform Visibility

Yelp reviews are also selective. They represent people who visit reviewable venues, use the platform, and choose to write publicly. Review corpora can reflect demographic, geographic, economic, and platform-specific participation biases [38, 33]. They are especially strong for commercial, public, and visitor-facing experiences. They are weaker for private, informal, marginalized, or less reviewable forms of local life.

A recovered case means that a documented regional experience is visible in this platform corpus. It does not mean that the experience matters equally to all communities in the region. An unrecovered case does not mean that an experience is absent from local life. It may mean that the experience is not often described in Yelp reviews, does not align with Yelp’s venue structure, or is practiced by communities less visible in the review economy.

There is also a representational risk. Regional signals can help users understand unfamiliar places, but they can also be misused to stereotype places or communities. This is why provenance matters. Systems should present regional experiential differences as corpus-grounded contrasts, not as essential cultural labels.

6.4.3. Lexical Matching and Meaning

The empirical test relies on anchor phrases and document-level normalized frequency. This makes the analysis auditable because each case can be traced to a phrase, a kind of place, a target state, and a control state. It also limits what the study can see.

Exact phrase matching can miss related expressions, spelling variants, abbreviations, and paraphrases. It captures phrase visibility, not stance. A review that praises indoor smoking and a review that complains about smoke can both contribute to the same phrase signal. The method is strongest for concrete practices, objects, and rules. It is weaker for diffuse qualities such as pace, friendliness, atmosphere, tension, or affective tone.

These limits point to an important distinction. This thesis is strongest at surfacing what people do, order, bring, follow, and encounter. It is less complete for how people feel, how communities disagree, or how meanings shift across groups.

6.4.4. Geographic and Taxonomic Boundaries

The analysis operates at the state level. This scale matches the guidebook sources and provides enough review data for comparison, but it smooths over smaller geographies. Place experience can vary across cities, neighborhoods, rural areas, tourism districts, border regions, and even streets within the same state.

The analysis is also constrained by Yelp's taxonomy. Some experiences map cleanly onto categories such as **Bakeries**, **Boat Tours**, **Restaurants**, or **Shopping Centers**. Others cut across categories or occur outside commercial venues. The excluded cases involving natural features and Indigenous cultural experiences show this boundary clearly.

Some forms of regional experience cannot be represented well by a single business category. Forcing them into one would repeat the flattening problem this thesis critiques.

6.5. Future Work

Future work can extend this thesis in four directions.

A first extension is semantic matching beyond exact anchor phrases. Reviewers may describe the same practice with different words, spellings, or local expressions. Embeddings, paraphrase detection, and language models could group related descriptions, while keeping the evidence auditable. This would allow systems to surface regional experiences that do not depend on a single phrase.

A second extension is stance and affect. A phrase may be visible because people celebrate it, complain about it, warn others about it, or treat it as ordinary. Separating presence from stance would produce richer explanations. A system could distinguish a local ritual from a local inconvenience, or a celebrated specialty from a frequently mentioned constraint.

A third extension is finer geographic scale. State-level analysis is useful for validation, but many experiences are organized at the scale of cities, neighborhoods, tourism districts, border regions, or rural and urban differences. Future systems could also move beyond fixed platform categories by modeling clusters of related venues, activity settings, public spaces, and cultural institutions.

Finally, user-facing systems should be evaluated not only by recommendation metrics, but by whether they improve people’s expectations and preparedness. These systems should be evaluated differently from conventional recommenders. The goal should be

evaluated beyond prediction accuracy or click-through rate. The question is whether users form better expectations, feel more prepared to enter unfamiliar places, notice differences that rankings hide, and perceive the representation as respectful and grounded.

Large language models create another opportunity for this design direction. Recent work has explored how LLMs can support recommendation, generative recommendation, and reasoning over user preferences [31, 53]. In this thesis, the more important use case is not generic recommendation. It is data-grounded reasoning about place experience. An LLM could help answer questions such as, “What should I know about bakeries in Louisiana compared with Pennsylvania?” or “What will feel different about going to a bar in Missouri compared with Illinois?”

In this setting, the model’s role would be evidence-grounded explanation rather than open-ended generation. The model would not be asked to infer regional difference from scratch. Instead, the underlying system would provide the region, comparison region, place type, anchor phrases, contrast scores, and supporting review contexts. The model would then translate that evidence into a clear user-facing account. This design would preserve the flexibility of conversational interaction while keeping claims tied to auditable review data.

The task for future HCI research is therefore not simply to recommend better places. It is to design systems that help people understand how place experience changes across geography. Regional experiential difference gives those systems a concrete target by identifying the practices, objects, rules, expectations, and forms of participation that make the same kind of place different somewhere else.

CHAPTER 7

Conclusion

This thesis argues that place-based systems lose an important layer of place knowledge when they treat venues primarily as comparable category entries. A bakery, pub, restaurant, tour, or shopping center may share a platform label across regions, but the practices, objects, rules, and expectations around that label can differ substantially. This thesis describes this loss as experiential flattening and names the hidden variation as regional experiential difference.

The empirical study shows that this variation is often already present in review data. Using a 91-case validation library of documented regional experiences, the study recovered review-based evidence for 89 cases in the Yelp Open Dataset. These cases span environmental affordances, cultural scripts, social defaults, and institutional constraints, and they appear not only in famous attractions but also in ordinary venues such as bakeries, pubs, boat tours, restaurants, cafes, shopping centers, and farmers' markets.

The broader implication is that reviews should be treated as more than business evaluations or ranking inputs. They are also public descriptions of situated experience: accounts of what people order, notice, bring, follow, avoid, and treat as normal. Place-based systems could use this evidence to help users understand unfamiliar places, not just select among them. The goal is not to replace search and ranking, but to make regional forms of place experience legible alongside them.

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APPENDIX A

Full Validation Case Library

Table A.1. **Full validation case library for cross-regional experiential differences within fixed categories.** This table reports all 91 guidebook-derived cases, including those shown in Table 5.1. Each row specifies a phrase t , a Yelp category c , and a target/control state pair. The two-bar glyph provides a visual comparison between the target and control states. Paraphrased review snippets from the target state illustrate typical usage without reproducing review text verbatim. Cases marked with [†] were not recovered under the evaluation criteria in §4.3.

Case / anchor phrase phrase t	Category c	Target / Control	Contrast	Paraphrased review snippets Target
ENVIRONMENTAL AFFORDANCES				
Buy avocado [19]	Farmers Market	California Idaho		Picked up fresh local avocados at the market this week.
Encounter a manatee [18]	Boat Tours	Florida California		Went on a manatee tour and got a close-up sighting.
Have an elk burger [39]	Burgers	Idaho Illinois		Tried an elk burger, a local specialty you do not see everywhere.
View desert plants [42]	Botanical Gardens	Arizona California		Loved the desert plant displays, especially the Sonoran varieties.
Take a swamp tour [50]	Tours	Louisiana California		Took a swamp tour, saw gators, and heard plenty of Cajun lore.
Have a cup of prickly pear margarita [42]	Bars	Arizona Illinois		Ordered a prickly pear margarita for a distinctly local twist.
Have a jeep tour [42]	Tours	Arizona New Jersey		Joined a jeep tour to explore the area from the road.
Eat some blue crab cake [49]	Seafood	Delaware Illinois		Had a blue crab cake that tasted unmistakably local.
Buy some huckleberries [39]	Farmers Market	Idaho Louisiana		Picked up huckleberries at the market and took some home.
Get a bison burger [39]	Burgers	Idaho New Jersey		Ordered a bison burger and it was surprisingly good.
Have a cave tour [51]	Tours	Missouri Indiana		Joined a cave tour and the formations were stunning.

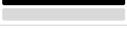
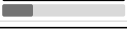
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Case phrase t	Category c	Target / Control	Contrast	Paraphrased review snippets Target
Go surfing [19]	Beaches	California Delaware		Went surfing while the weather was perfect for it.
Go to a year-round farmer's market [19]	Farmers Market	California Illinois		This market runs year-round , which is great for local produce.
Eat stone crab claws [18]	Seafood	Florida Delaware		Tried stone crab claws , a Florida staple worth seeking out.
see crystal-clear water [18]	Boating	Florida Louisiana		The water looked crystal-clear from the shore.
Visit a covered bridge [6]	Landmarks & Historical Buildings	Indiana California		Stopped at a covered bridge , an easy scenic detour.
Have a persimmon dessert [6]	Desserts	Indiana Delaware		Tried a persimmon dessert that felt region-specific.
CULTURAL SCRIPTS				
Have a king cake [48, 50]	Bakeries	Louisiana Pennsylvania		Picked up a king cake for Mardi Gras season.
Go line dancing [47]	Dance Studios	Tennessee Illinois		Went line dancing with country music and a friendly crowd.
Listen to live jazz [50, 48]	Music Venues	Louisiana California		Great place to catch live jazz in the evening.
Go wine tasting [19]	Wineries	California Arizona		Went wine tasting and sampled a wide range of local bottles.
Buy custom cowboy boots [47]	Shoe Stores	Tennessee Florida		Got fitted for custom cowboy boots made to order.
Eat cheesesteaks [56]	Sandwiches	Pennsylvania Arizona		Had a classic Philly cheesesteak while in town.
Buy beignet [50]	Bakeries	Louisiana California		Grabbed beignets , a New Orleans bakery classic.
Eat duck tamales [42]	Mexican	Arizona Illinois		Tried duck tamales as an appetizer and they were memorable.
Eat pistachio crusted meat [42]	French	Arizona New Jersey		The pistachio crusted meat dish was the standout.
Have a cassoulet [42]	French	Arizona Illinois		Ordered cassoulet , a comforting French classic.
Get a Navajo taco [42]	Mexican	Arizona Indiana		Tried a Navajo taco and it was a hearty, local-style plate.
Have a mutton stew [42]	American (Traditional)	Arizona New Jersey		Went with mutton stew for something distinctly regional.
Get tepary bean dishes [42]	Mexican	Arizona Illinois		Tried tepary bean dishes featuring an ingredient native to the region.
Have a Sonoran hot dog [42]	Hot Dogs	Arizona Illinois		Ordered a Sonoran hot dog, loaded with classic toppings.

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Case phrase t	Category c	Target / Control	Contrast	Paraphrased review snippets Target
Get a mesquite smoked dishes [42]	Breakfast & Brunch	Arizona Illinois		Tried a mesquite-smoked dish with a very desert-style flavor.
Buy turquoise jewelry [42]	Jewelry	Arizona New Jersey		Browsed turquoise jewelry, a common local craft item.
Visit American decorative arts [49]	Museums	Delaware Idaho		Visited a museum section focused on American decorative arts .
Visit the history of DuPont era [49]	Museums	Delaware California		Learned about the DuPont-era history at a local museum.
Have some scrapple [49]	Breakfast & Brunch	Delaware California		Had scrapple for breakfast, a regional classic.
Have some bananas Foster [50]	Breakfast & Brunch	Louisiana Arizona		Tried bananas Foster as dessert and it was rich and warm.
Have a cup of Café au Lait [50]	Café	Louisiana Arizona		Ordered a café au lait , simple and exactly what I wanted.
Have a cup of Café Brûlot [50]	Café	Louisiana Arizona		Tried café brûlot , a spiced coffee tradition with a kick.
Have some calas [50]	Café	Louisiana Arizona		Tried calas , a fried New Orleans treat that is hard to find elsewhere.
Have crawfish boil [50]	Cajun/Creole	Louisiana Tennessee		Finally tried a crawfish boil , a true Louisiana-style feast.
Have a Po'boy sandwich [50]	Sandwiches	Louisiana Illinois		Grabbed a po'boy , the kind of sandwich you look for in Louisiana.
Have a muffuletta sandwich [50]	Delis	Louisiana California		Tried a muffuletta , a New Orleans deli staple.
Order a sazerac [50]	Cocktail Bars	Louisiana Indiana		Sipped a classic Sazerac cocktail.
Order a hurricane [50]	Cocktail Bars	Louisiana Missouri		Tried a Hurricane cocktail, a well-known New Orleans drink.
Listen to a brass band [50]	Music Venues	Louisiana Missouri		A brass band played nearby and set the tone for the night.
Watch street parade [50]	Music Venues	Louisiana Missouri		We watched a street parade pass by right outside.
Have a gooey butter cake [51]	Bakery	Missouri New Jersey		Tried gooey butter cake , a St. Louis specialty.
Taste burnt ends [51]	Smokehouse	Missouri Idaho		Ordered burnt ends and understood the hype.
Taste toasted ravioli [51]	Barbeque	Missouri Indiana		Tried toasted ravioli , a local bar snack.
Have a St. Louis-style pizza [51]	Pizza	Missouri New Jersey		Split a St. Louis-style pizza for something different.

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Case phrase t	Category c	Target / Control	Contrast	Paraphrased review snippets Target
Have a brewery tour [51]	Tours	Missouri Nevada		Went on a brewery tour and learned how everything is made.
Buy local craft alcohols [51]	Breweries	Missouri Delaware		Picked up local craft beer and spirits to sample.
Buy soft pretzels [56]	Bakeries	Pennsylvania Tennessee		Grabbed a soft pretzel that felt very Pennsylvania.
Buy shoofly pie [56]	Bakeries	Pennsylvania Tennessee		Tried shoofly pie , a classic local dessert.
Buy products from the Amish [56]	Farmers Market	Pennsylvania California		Picked up Amish made goods at a market with lots of local vendors.
Buy Mennonite -made products [56]	Farmers Market	Pennsylvania California		Bought Mennonite produce and it was fresh and affordable.
Get a hoagie roll [56]	Delis	Pennsylvania California		Ordered a hoagie on a proper hoagie roll.
Buy a super burrito [19]	Mexican	California Illinois		Ordered a super burrito , the sort of huge burrito locals expect.
Visit a museum for neon signs [36]	Museums	Nevada New Jersey		Visited a neon museum full of glowing vintage signs.
Have a hot dog with Polish sausage [5]	Hot Dogs	Illinois Delaware		Got a Chicago-style dog with Polish sausage on the side.
Have a Maxwell Street -style hot dog [5]	Hot Dogs	Illinois Pennsylvania		Ordered a Maxwell Street -style hot dog with the usual toppings.
Have key lime pie [18]	Desserts	Florida California		Key lime pie was tangy and refreshing.
Have a Cuban sandwich with salami [18]	Sandwiches	Florida Illinois		A proper Cuban sandwich here comes with salami .
Try conch fritters [18]	Seafood	Florida New Jersey		Tried conch fritters , a Florida seafood snack.
Get hot chicken [47]	Chicken Shop	Tennessee California		Tried hot chicken and it delivered real heat.
Listen to live country music [47]	Music Venues	Tennessee Arizona		Came for live country music and stayed for the vibe.
Have a distillery tour [47]	Tours	Tennessee Illinois		Did a distillery tour and sampled a few local spirits.
Have a pork roll for breakfast [8]	Breakfast & Brunch	New Jersey Idaho		Had pork roll for breakfast, a New Jersey staple.
Have disco fries for dinner [8]	Diners	New Jersey Missouri		Ordered disco fries topped with gravy and cheese.
Have Tomato pie for dinner [8]	Pizza	New Jersey Illinois		Tried tomato pie and it was better than expected.

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Case phrase <i>t</i>	Category <i>c</i>	Target / Control	Contrast	Paraphrased review snippets Target
Get a Trenton Pizza [8]	Pizza	New Jersey Indiana		Ordered a Trenton -style pizza and it really hit the spot.
Get a breaded pork tenderloin sandwich [6]	Sandwiches	Indiana Delaware		Tried a breaded pork tenderloin sandwich, an Indiana diner classic.
Have a Hoosier sugar cream pie [6]	Bakeries	Indiana California		Had Hoosier sugar cream pie for dessert.
Have a fiery peppers taco † [42]	Tacos	Arizona Indiana		Ordered a fiery pepper taco for an extra-spicy bite.
SOCIAL DEFAULTS				
Get picon punch [36]	Basque	Nevada Idaho		Started with a picon punch , a local pre-dinner ritual.
Eat vegan pastries [19]	Cafés	California Illinois		Found a great selection of vegan pastries .
Order alligator dishes [18]	Cajun/Creole	Florida Illinois		Tried an alligator dish, something I would not order back home.
Have a meal with farm-to-table products [19]	American (New)	California Illinois		The menu leaned heavily into farm-to-table ingredients.
Try a hyper-local restaurant [19]	American (New)	California Illinois		Tried a hyper-local spot that focuses on the immediate region.
Go for all-you-can-eat in casino [36]	Casinos	Nevada Illinois		Did an all-you-can-eat casino meal with an over-the-top spread.
Go to a sportsbook watch party [36]	Casinos	Nevada California		Watched the game at the sportsbook with a lively crowd.
Go to a honky tonk [47]	Bars	Tennessee Nevada		Stopped by a honky tonk for dancing and live music.
Listen to bluegrass jams [47]	Music Venues	Tennessee Delaware		Dropped in for bluegrass jams and a laid-back scene.
INSTITUTIONAL CONSTRAINTS				
tax-free shopping [49]	Shopping Centers	Delaware New Jersey		Nice perk, the total is tax-free at checkout.
smoking inside [26, 27]	Pubs	Missouri Illinois		This bar still allows smoking inside .
Get drive-thru daiquiri [50, 30]	Bars	Louisiana Tennessee		Grabbed a drive-thru daiquiri , which feels uniquely local.
BYOB [56]	Restaurants	Pennsylvania California		This restaurant is BYOB , so you can bring your own bottle.
Enter a lottery for limited-release spirits [56]	Wine & Spirits	Pennsylvania Idaho		Entered the state lottery to buy limited-release spirits.

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Case phrase t	Category c	Target / Control	Contrast	Paraphrased review snippets Target
No self-service at gas stations [8]	Gas Stations	New Jersey Illinois		No self-service here, an attendant pumps your gas.
Have a drive-thru wedding † [36]	Wedding Chapels	Nevada Illinois		Not recovered under the phrase-matching criterion.