Query Classification Guidelines for LLM

Overview

Classify each query across four main schemas:

1. **Annotation Schema** - Language, spelling, ambiguity issues
2. **Entity Schema** - People, places, products, organizations in the query
3. **Intent Schema** - What the user wants to do
4. **Topic Schema** - Subject matter domain
5. **PRIME Category** - The single most important experience to show

Classification Methodology

Making Judgments

- Research each query using Yahoo Search to understand meaning and intent
- Consider **Time context** (seasonality, current events)
- Mark classifications as:
    - Primary/dominant classification
    - Secondary/non-dominant but still important classification
- Multiple classifications allowed within any schema
- Every query must have at least one Intent and one Topic classification

Required Classifications

- **Intent Schema**: At least one classification required
- **Topic Schema**: At least one classification required
- **Entity Schema**: Usually has entities, but not required
- **Annotation Schema**: Only if applicable
- **PRIME Category**: Exactly one required (except for "Don't Know" queries)

ANNOTATION SCHEMA

Non-market Language

Mark if query is not in English or common English phrases.

Examples:

- `descargar juegos wii` → Spanish (means "download wii games")
- `caveat emptor` → Latin but widely understood in English (don't mark)

Misspelled/Malformed

Query has spelling errors, extra/missing spaces, mixed up word order, or poor grammar.

Examples:

- `face` → When research shows users mean "facebook"
- `restirant` → Misspelled "restaurant"
- `dmv.ca.gov appointments` → Malformed with period placement

Ambiguous

Query has multiple distinct meanings or unclear intent.

Multiple meanings:

- `madonna` → Singer or religious figure
- `911` → Emergency number or September 11th
- `amazon` → Company or river

Unclear meaning:

- `7037579785` → Phone number or something else?
- `address of the school` → Which school?

NOT ambiguous: Queries with one meaning but multiple information needs

- `chris pratt` → Actor (people want photos, filmography, news - still one entity)

Don't Know/Cannot Classify

Use rarely when you absolutely cannot determine query meaning after research.

- Always add explanatory note
- No further classification needed

ENTITY SCHEMA

General Guidance

- Entities are nouns (proper or common)
- Classify ALL entities in the query based on context
- Can mark multiple entities with x (dominant) or y (supporting)
- Most queries contain at least one entity

Person - Notable/Famous

Current, historical, or fictional famous people with public recognition.

Examples:

- obama → Political figure
- marilyn monroe → Actress
- harry potter → Fictional character
- albert einstein → Scientist

Person - Non-notable

People without public fame.

Examples:

- Local contest winners
- People in minor news stories
- Regular individuals

Type of Person

Categories of people by gender, occupation, age, ethnicity, etc.

Examples:

- doctors → Profession
- teenagers → Age group
- asian women → Ethnicity + gender
- ceo → Occupation
- millennials → Generation

Specific Named Organization/Group/Business

Named entities including companies, teams, bands, schools, etc.

Examples:

- `microsoft` → Company
- `los angeles lakers` → Sports team
- `the beatles` → Music group
- `harvard university` → School
- `target san jose` → Store location

Type of Organization/Group/Business

Categories of organizations or businesses.

Examples:

- `universities` → Type of school
- `basketball teams` → Type of sports team
- `restaurants` → Type of business
- `rock bands` → Type of music group

Media Title

Named books, songs, movies, albums, games, newspapers, etc.

Examples:

- `harry potter and the goblet of fire` → Book/movie
- `call of duty` → Video game
- `new york times` → Newspaper
- `bohemian rhapsody` → Song

Type of Media

Categories of media formats.

Examples:

- `horror movies` → Movie genre
- `english newspapers` → Publication type
- `video games` → Game category
- `song lyrics` → Media component

Specific Named Product

Named product models, families, or manufacturers.

Examples:

- `iphone 12` → Specific model
- `ford explorer` → Vehicle model
- `nike air max` → Product line
- `xbox 360` → Gaming console

Type of Product

Product categories.

Examples:

- `smartphones` → Device category
- `running shoes` → Footwear type
- `laptops` → Computer type
- `vacuum cleaners` → Appliance type

Specific Place Entities

Specific Place - City

- `boston`
- `london`
- `des moines`

Specific Place - POI (Point of Interest)

- `eiffel tower`
- `disneyland`
- `golden gate park`
- `times square`

Specific Place - Street Address

- `123 main street`
- `1600 pennsylvania avenue`

Specific Place - Other

States, countries, regions, islands, zip codes, etc.

- `california` → State
- `france` → Country
- `94089` → Zip code
- `midwest` → Region

Type of Place

Place categories.

Examples:

- `cities`
- `national parks`
- `islands`
- `neighborhoods`

Specific Named Event

Named specific events.

Examples:

- `super bowl 2023`
- `coachella`
- `world war ii`
- `christmas`

Type of Event

Event categories.

Examples:

- `music festivals`
- `holidays`
- `sports playoffs`
- `weddings`

Website

Named websites or URLs.

Examples:

- `facebook.com`
- `amazon` (when context indicates website)
- `gmail login`
- `yahoo mail`

Other Entity

Everything else - phone numbers, email addresses, diseases, foods, animals, etc.

Examples:

- `diabetes` → Disease
- `pizza` → Food
- `golden retriever` → Dog breed
- `555-1234` → Phone number

INTENT SCHEMA

"I want the website"

User wants to navigate to a specific website.

Examples:

- `facebook`
- `amazon.com`
- `gmail login`
- `target homepage`

"I want porn or illegal stuff"

Adult content, illegal activities, hate speech, violence.

Examples:

- `adult content terms`
- `how to make illegal substances`
- `pirated software`

"I want images or videos"

User wants visual media (explicit or implicit).

Explicit: Contains words like "pictures", "photos", "video"

- `puppies pictures`
- `tom cruise photos`

Implicit: Queries often seeking visuals

- `cute kittens`
- `rihanna` (celebrities often have image intent)

"I want phone number, address, map, reviews"

Local business/service information.

Examples:

- `pizza near me`
- `walmart hours`
- `dentist san jose`
- `hotel reviews boston`

"I want event information or tickets"

Information about scheduled events.

Examples:

- `taylor swift tour dates`
- `when is thanksgiving 2024`
- `comic con tickets`
- `local festivals this weekend`

"I want news articles"

Current, evolving news stories.

Examples:

- `election results`
- `breaking news`
- `stock market today`
- `weather emergency updates`

"I want to buy or research a product"

Shopping or product research intent.

Examples:

- `best laptops 2024`
- `iphone 15 price`
- `buy running shoes`
- `refrigerator reviews`

"I want to know some simple fact"

Short, factual answers (≤8 words).

Examples:

- `capital of france` → Paris
- `tom hanks age` → 67
- `inches in a foot` → 12

"I want to research something and get more info"

Longer, exploratory information needs.

Examples:

- `how does photosynthesis work`
- `world war 2 causes`
- `diabetes symptoms and treatment`
- `best camera for beginners`

"I have some other intent"

Intents not covered above - always explain in notes.

TOPIC SCHEMA

Autos

Cars, motorcycles, parts, dealers, mechanics, driving.

Examples:

- honda civic reviews
- oil change near me
- used cars
- auto parts store

Education

Schools, teaching, studying, educational resources.

Examples:

- harvard university
- algebra help
- SAT prep
- elementary schools near me

Entertainment - Books

Books, authors, libraries, e-readers.

Examples:

- stephen king novels
- kindle books
- library hours
- bestseller list

Entertainment - Games

Video games, board games, card games, lottery.

Examples:

- minecraft
- chess strategies
- powerball numbers
- ps5 games

Entertainment - Movies

Films, actors, theaters, showtimes.

Examples:

- brad pitt
- movie times
- avatar 2
- amc theaters

Entertainment - Music

Musicians, songs, concerts, music venues.

Examples:

- taylor swift
- concert tickets
- song lyrics
- spotify

Entertainment - TV

TV shows, networks, streaming, TV personalities.

Examples:

- stranger things
- netflix
- tonight show
- cable providers

Entertainment - Other

Comics, radio, theater, art, other entertainment.

Examples:

- marvel comics
- broadway shows
- museum hours
- circus tickets

Environment

Ecology, green issues, climate, conservation.

Examples:

- global warming
- solar panels
- recycling centers
- endangered species

Finance

Banking, investments, insurance, financial services.

Examples:

- stock prices
- mortgage rates
- credit cards
- bank of america

Food and Dining

Restaurants, recipes, food, beverages, cooking.

Examples:

- pizza recipes
- restaurants near me
- how to cook steak
- coffee shops

Government, Civic, Politics

Government services, politics, civic issues.

Examples:

- dmv hours
- senator contact
- voting locations
- city permits

Health and Medical

Medical conditions, treatments, healthcare providers.

Examples:

- diabetes symptoms
- doctors near me
- headache remedies
- hospital emergency room

Home and Garden

Home improvement, gardening, furniture, appliances.

Examples:

- lawn care
- kitchen remodel
- furniture stores
- plumbing repair

Jobs

Employment, careers, job search, workplace issues.

Examples:

- jobs near me
- resume tips
- salary information
- interview questions

Legal

Law, lawyers, legal issues, court cases.

Examples:

- lawyers near me
- divorce laws
- traffic ticket help
- legal advice

People Search

Finding non-famous individuals.

Examples:

- john smith phone number
- find address
- people finder

Personal Goods and Services

Clothing, accessories, beauty, personal care.

Examples:

- clothing stores
- hair salons
- makeup tutorials
- spa services

Pets and Animals

Pet care, veterinarians, animal information.

Examples:

- dog training
- vet near me
- cat food
- pet adoption

Real Estate

Property sales, rentals, real estate services.

Examples:

- homes for sale
- apartments for rent
- real estate agents
- property values

Religion

Religious topics, places of worship, spiritual matters.

Examples:

- churches near me
- bible verses
- religious holidays
- prayer times

Retailers

General merchandise stores (not specialized).

Examples:

- walmart
- target
- amazon
- costco

Social Networking, Chat and Personals

Social media, dating, communication platforms.

Examples:

- facebook
- dating sites
- instagram
- chat rooms

Sports and Outdoors

Sports, teams, outdoor activities, recreation.

Examples:

- nba scores
- hiking trails
- gym near me
- fishing gear

Tech and Electronics

Technology, computers, software, electronics.

Examples:

- laptop reviews
- software download
- tech support
- smartphone comparison

Transit, Traffic, Commuting

Local transportation, traffic, commuting.

Examples:

- bus schedule
- traffic report
- subway map
- gas stations

Travel and Lodging

Travel, tourism, hotels, destinations.

Examples:

- cheap flights
- hotels paris
- tourist attractions
- cruise deals

Weather

Weather conditions, forecasts, weather events.

Examples:

- weather forecast
- temperature today
- hurricane tracking
- weather radar

Other Topic

Topics not covered above - always explain in notes.

PRIME CATEGORY

Select ONE category representing the most important experience to show.

ANSWERS [select subclass]

Show opinions, advice, recommendations from others.

Examples:

- `how to fix a leaky faucet`
- `best smartphone 2024`
- `parenting advice`

Subclasses include: General, Autos, Dreams, Education, Finance, Food, Games, Gardening, Health, Jobs, Legal, Music, Parenting, Relationships, Religion, Science/Math, Sports, Tech, Travel, Weddings, Other

QUICKFACT [select subclass]

Show quick factual answers.

Examples:

- `define ambiguous`
- `5+5`
- `time in tokyo`

Subclasses include: Astronomical Event, Calories, Conversion, Crossword, Define, Directions, Flight Tracker, Holiday, Phone Codes, Phone Number, Sunrise/Sunset, Table, Time, Traffic, Translate, Zip Code

Specific Experience Categories

Notable Person [Actor/Athlete/Musician/Other]

- Information + images/videos about famous people

Shopping

- Product information, prices, sellers, reviews

Local [Category/Chain/Single]

- Local business listings with maps

News

- Breaking news articles only

Place

- Map + information about locations

Weather

- Current conditions and forecasts

Movie [Current/Non-current]

- Movie information, showtimes, reviews

TV Show

- Show information, episodes, cast

Sports Team

- Team information, scores, schedules

OTHER [select subclass]

When no other PRIME fits.

Common subclasses: Academic, Adult, Airport, App, Events, Jobs, Music, Person Search, Real Estate, Web, Wiki, None of These