Test Topics: TREC 2009 Legal Track, Batch Task

This document provides summary information for each of the 10 topics of the Batch task of the TREC 2009 Legal Track. The information provided is as follows:

Topic : The topic numbers range from 7 to 145. In parentheses are the year of the topic set (2006-2008), the label of the complaint (A through I), and the request number inside the complaint. (The complaints run several pages and are available on the track web site [1].)

Request Text : The one-sentence statement of the request.

Initial Proposal by Defendant, Rejoinder by Plaintiff and Final Negotiated Boolean Query :

The following syntax was used for the Boolean queries:

- `AND, OR, NOT, ()`: As usual.
- `x BUT NOT y`: Same meaning as `(x AND (NOT (y)))`
- `x`: Match this word exactly (case-insensitive).
- `x!`: Truncation – matches all strings that begin with substring `x`.
- `!x`: Truncation – matches all strings that end with substring `x`.
- `x?y`: Single-character wildcard – matches all strings that begin with substring `x`, end with substring `y`, and have exactly one-character in between `x` and `y`.
- `x*y`: Muliple-character wildcard – matches all strings that begin with substring `x`, end with substring `y`, and have 0 or more characters between `x` and `y`.
- `"x"`, `"x y"`, `"x y z"`, etc.: Phrase – match this string or sequence of words exactly (case-insensitive).
- `"y x!"`, `"x! y"`, etc.: If `!` is used internal to a phrase, then do the truncated match on the words with `!`, and exact match on the others. (The `*` and `?` wildcard operators may also be used inside a phrase.)
- `w/k`: Proximity – `x w/k y` means match `"x a b ... c y"` or `"y a b ... c x"` if `"a b ... c"` contains `k` or fewer words.
- `x w/k1 y w/k2 z`: Chained proximity – a match requires the same occurrence of `y` to satisfy `x w/k1 y` and `y w/k2 z`.

Note that in this version some fields of the negotiation history are omitted (namely Defendant2, Plaintiff2 and Defendant3).

Sampling and Est. Rel. : The number of pooled documents is given (which this year is always 6,910,192 because the entire colllection was in the pool), followed by the number presented to the assessors (which was 2500 for all topics except #51 (1500) and #89 (1250)), the number the assessors judged relevant, the number the assessors judged highly relevant, the number the assessors judged non-relevant, and the number the assessors left as "gray" (defined earlier). The "C" value of the p(d) formula is given (as described in the track overview paper) assuming all 2500 documents were assessed (for topics #51 and #89 it is followed by a multiplier to adjust for some bins not being judged).

Est. Rel. : "Est. Rel." is the estimated number of relevant documents in the pool for the topic (based on the sampling results). The estimated number of highly relevant documents follows in parentheses.

Final Boolean Result Size (B), F1, Precision and Recall : "B" is the number of documents matching the final negotiated Boolean query (which always was between 100 and 100000 for these topics). "F1" is the estimated F1 score of the final negotiated Boolean query result set; "Precision" is its estimated precision and "Recall" is its estimated recall.

Participant High F1@K and Median F1@K : The highest estimated F1 score of the participant runs is listed, followed in parentheses by the run's identifier; if more than one run tied for the highest score, just one of them is listed (chosen randomly) and the number of other tied runs is stated. The median estimated F1 score is based on the median score of the 10 participant runs.

5 Deepest Sampled Highly Relevant Documents : The identifiers of the 5 deepest sampled documents that were judged highly relevant are listed in descending depth order. The identifier is underlined if the document was not retrieved by the final negotiated Boolean query. Each identifier is followed by its weight in the estimation formulas (i.e., the estimated number of relevant documents it represents) which is 1/p(d) (i.e., the reciprocal of the probability of being selected for judging). In parentheses is the identifier of the pooled run which retrieved the document at the highest rank, followed by that rank (which can range from 1 to 6,910,192). If multiple runs retrieved the document at that rank, just one of them is listed. For example, for topic 7, the entry of "bhz55d00-2182.3 (sab07legrf2-24331)" indicates that the bhz55d00 document was judged highly relevant and, because it is underlined, it did not match the final Boolean query. It counts as 2182.3 estimated highly relevant documents in the estimation formulas (because it was selected for judging with probability 1/2182.3). The sab07legrf2 run retrieved this document at rank 24331; any other pooled run that retrieved the document did so at the same or deeper rank (i.e., if the pooling had been to less than depth 27239, the document would not have been in the pool). Note that the pooling included not just this year's runs but also all participant and reference runs from past years (e.g., sab07legrf2 was a run from the 2007 Relevance Feedback task). The document content and metadata can be found online by appending the document identifier to the url "http://legacy.library.ucsf.edu/tid/" (e.g., `http://legacy.library.ucsf.edu/tid/bhz55d00`). One can do failure analysis for the final Boolean query for most topics by reviewing the underlined document identifiers.

5 Deepest Sampled Other Relevant Documents : Same as previous except only relevant documents (excluding highly relevant documents) are included.

Topic 7 (2006-A-2)

Request Text: All documents discussing, referencing, or relating to company guidelines, strategies, or internal approval for placement of tobacco products in movies that are mentioned as G-rated.

Initial Proposal by Defendant: `(guidelines OR strategies OR "internal approval") AND placement AND "G-rated movie"`

Rejoinder by Plaintiff: `((guide! OR strateg! OR approv!) AND (place! or promot!)) AND (("G-rated" OR "G rated" OR family) W/5 (movie! OR film! OR picture!))`

Final Negotiated Boolean Query: `((guide! OR strateg! OR approv!) AND (place! or promot!)) AND (("G-rated" OR "G rated" OR family) W/5 (movie! OR film! OR picture!))`

Sampling: 6910192 pooled, 2500 assessed, 125 judged highly relevant, 282 other judged relevant, 2069 judged non-relevant, 24 gray, "C"=6.28

Est. Rel.: 188571.3 (including 6872.6 estimated highly relevant)

Final Boolean Result Size (B): 648, **F1**: 0.3%, (**Precision**: 37.4%, **Recall**: 0.1%)

Participant High F1@K: 17.1% (otL09rvl), **Median F1@K**: 3.0%

5 Deepest Sampled Highly Relevant Documents: bhz55d00-2182.3 (sab07legrf2-24331), piy43c00-2069.2 (watrrf-22180), ozy65c00-615.7 (SabLeg06ab1-4412), xvp64c00-358.0 (watstack-2423), ynm25d00-341.6 (UmdComb-2304)

5 Deepest Sampled Other Relevant Documents: uwn47c00-4977.4 (fullset09-6910192), bhg71c00-4977.4 (fullset09-6910192), otx21c00-4977.4 (fullset09-6910192), jkw31c00-4977.4 (fullset09-6910192), ngp68d00-4977.4 (fullset09-6910192)

Topic 51 (2006-E-10)

Request Text: All documents referencing or regarding lawsuits involving claims related to memory loss.

Initial Proposal by Defendant: `(lawsuits OR "tort claims") AND "memory loss"`

Rejoinder by Plaintiff: `((memory w/2 loss) OR amnesia OR Alzheimer! OR dementia) AND (lawsuit! OR litig! OR case OR (tort w/2 claim!) OR complaint OR allegation!)`

Final Negotiated Boolean Query: `((memory w/2 loss) OR amnesia OR Alzheimer! OR dementia) AND (lawsuit! OR litig! OR case OR (tort w/2 claim!) OR complaint OR allegation!)`

Sampling: 6910192 pooled, 1500 assessed, 11 judged highly relevant, 34 other judged relevant, 1415 judged non-relevant, 40 gray, "C"=6.37 * 1500/2500

Est. Rel.: 26404.4 (including 67.0 estimated highly relevant)

Final Boolean Result Size (B): 7216, **F1**: 2.8%, (**Precision**: 7.2%, **Recall**: 1.7%)

Participant High F1@K: 0.7% (otL09rvl), **Median F1@K**: 0.3%

5 Deepest Sampled Highly Relevant Documents: ohr23c00-18.3 (sab07legrf1-70), jti87e00-11.0 (uw07T5-42), dji90d00-9.9 (uw07T4-38), nhb26d00-7.8 (UMKCB2-30), ckt94c00-6.0 (watrrf-23)

5 Deepest Sampled Other Relevant Documents: afr23a00-8295.1 (fullset09-6910192), azt40e00-8010.9 (watrrf-791311), bga62e00-7983.5 (otL09F-726803), qop35d00-1237.1 (sab07legrf2-5552), xyv93d00-216.4 (CMU07RBase-849)

Topic 80 (2007-C-2)

Request Text: All documents making a connection between folk songs and music and the sale of cigarettes.

Initial Proposal by Defendant: `"folk songs" AND (sale! OR sell! OR promot! OR advertis! OR market!)`

Rejoinder by Plaintiff: `folk AND (sale OR sell! OR promot! OR advertis! OR market!)`

Final Negotiated Boolean Query: `("folk songs" OR "folk music" OR "folk artists") AND (sale! OR sell! OR promot! OR advertis! OR market!)`

Sampling: 6910192 pooled, 2500 assessed, 309 judged highly relevant, 224 other judged relevant, 1947 judged non-relevant, 20 gray, "C"=3.92

Est. Rel.: 227596.2 (including 50387.9 estimated highly relevant)

Final Boolean Result Size (B): 331, **F1**: 0.1%, (**Precision**: 79.2%, **Recall**: 0.1%)

Participant High F1@K: 28.9% (otL09F), **Median F1@K**: 13.0%

5 Deepest Sampled Highly Relevant Documents: qdm25a00-4985.8 (fullset09-6910192), nfh28c00-4913.3 (watlogistic-1111705), oma22d00-4884.1 (watlogistic-827282), lrb74d00-4877.9 (watlogistic-784037), dfn81d00-4756.8 (watlogistic-383837)

5 Deepest Sampled Other Relevant Documents: xfm15f00-4985.8 (fullset09-6910192), rry74c00-4930.1 (watlogistic-1383680), net81d00-4928.6 (watlogistic-1354636), qoc45d00-4928.4 (watlogistic-1350990), tdp92e00-4912.0 (watrrf-1094771)

Topic 89 (2007-D-1)

Request Text: Submit all documents listing monthly and/or annual sales for companies in the property and casualty insurance business in the United States between 1980 and the present.

Initial Proposal by Defendant: `(("monthly sales" OR "annual sales") AND ("property insurance" OR "casualty insurance")) AND (United States OR U.S.) AND (198! OR 199!)`

Rejoinder by Plaintiff: `(month! OR annual!) AND (sales OR sell! OR revenue) AND insurance AND (198! OR 199!)`

Final Negotiated Boolean Query: `(((month! OR annual!) w/15 (sales OR sell! OR revenue)) AND ((property OR casualty) AND insurance)) BUT NOT (England OR "Great Britain" OR U.K. OR UK)`

Sampling: 6910192 pooled, 1250 assessed, 88 judged highly relevant, 84 other judged relevant, 1074 judged non-relevant, 4 gray, "C"=4.14 * 1250/2500

Est. Rel.: 21451.7 (including 1019.0 estimated highly relevant)

Final Boolean Result Size (B): 3636, **F1**: 3.7%, (**Precision**: 11.6%, **Recall**: 2.2%)

Participant High F1@K: 16.9% (watlogistic), **Median F1@K**: 8.1%

5 Deepest Sampled Highly Relevant Documents: cmj70e00-162.0 (SabL08rf1-341), iwq35f00-108.9 (otL07fbe-228), cqo60e00-66.7 (SabL08rf1-139), lue44a00-63.3 (UCBM25T5Th5-132), laf60e00-62.4 (UMass15-130)

5 Deepest Sampled Other Relevant Documents: wxf83d00-7891.3 (otL09F-77498), jet48d00-4434.4 (UIowa07LegE5-16500), gtn64c00-2856.0 (UCPwrT5Th5-8279), csq23d00-1752.4 (IowaSL07Ref-4400), urs61d00-1021.5 (SabL07ar2-2356)

Topic 102 (2008-I-1)

Request Text: Documents referring to marketing or advertising restrictions proposed for inclusion in, or actually included in, the Master Settlement Agreement ("MSA"), including, but not limited to, restrictions on advertising on billboards, stadiums, arenas, shopping malls, buses, taxis, or any other outdoor advertising.

Initial Proposal by Defendant: `(((marketing OR advertising) w/3 restrictions) w/20 ("master settlement agreement" OR MSA)) AND (billboard! OR arena! OR stadium! OR "shopping mall!" OR bus OR buses OR taxi! OR "outdoor advertising")`

Rejoinder by Plaintiff: `((marketing OR advertis! OR promot! OR display!) w/10 (restrict! OR limit! OR prohibit! OR ban OR bans OR banned OR disallow!)) AND (("master settlement agreement" OR MSA) OR (billboard! OR arena! OR stadium! OR "shopping mall" OR bus OR buses OR taxi! OR "outdoor advertising"`

OR subway OR train OR station OR banner OR marquee OR boat OR rail OR Amtrak OR "public transportation" OR "mass transit"))

Final Negotiated Boolean Query: ((marketing OR advertis! OR promot! OR display!) w/10 (restrict! OR limit! OR prohibit! OR ban OR bans OR banned OR disallow!)) AND (("master settlement agreement" OR MSA) OR (billboard! OR arena! OR stadium! OR "shopping mall" OR bus OR buses OR taxi! OR "outdoor advertising" OR subway OR station OR banner OR marquee OR rail OR Amtrak OR "public transportation" OR "mass transit"))

Sampling: 6910192 pooled, 2500 assessed, 334 judged highly relevant, 484 other judged relevant, 1678 judged non-relevant, 4 gray, "C"=9.49

Est. Rel.: 518643.9 (including 39885.8 estimated highly relevant)

Final Boolean Result Size (B): 86742, **F1**: 22.6%, (**Precision**: 71.1%, **Recall**: 13.4%)

Participant High F1@K: 41.0% (watlogistic), **Median F1@K**: 32.7%

5 Deepest Sampled Highly Relevant Documents: hlg91a00-4663.7 (watlogistic-657773), bao56d00-3603.6 (ucedlsi-122418), poz77d00-3437.2 (watlogistic-104334), cxo18c00-2871.5 (uva-xb-63997), vnw12d00-2518.8 (watlogistic-48155)

5 Deepest Sampled Other Relevant Documents: ouj23d00-4965.9 (fullset09-6910192), ziu53f00-4965.9 (fullset09-6910192), dht31c00-4965.9 (fullset09-6910192), fyd16e00-4965.9 (fullset09-6910192), gaa34f00-4965.9 (fullset09-6910192)

Topic 103 (2008-I-2)

Request Text: All documents which describe, refer to, report on, or mention any "in-store," "on-counter," "point of sale," or other retail marketing campaigns for cigarettes.

Initial Proposal by Defendant: "in store" OR "on counter" OR "point of sale" AND (retail OR marketing OR campaign)

Rejoinder by Plaintiff: (store OR shop OR "on counter" or "countertop" or "point of sale" or "POS" or checkout or 7-11) w/20 (marketing OR advertis! OR promot! OR display!)

Consensus1: (store OR shop OR "on counter" or "countertop" or "point of sale" or "POS" or checkout or 7-11) w/10 (marketing OR advertis! OR promot! OR display!)

Final Negotiated Boolean Query: (store OR shop OR "on counter" or "countertop" or "point of sale" or checkout or 7-11) w/5 (marketing OR advertis! OR promot! OR display!)

Sampling: 6910192 pooled, 2500 assessed, 224 judged highly relevant, 692 other judged relevant, 1564 judged non-relevant, 20 gray, "C"=4.20

Est. Rel.: 1046833.8 (including 188783.9 estimated highly relevant)

Final Boolean Result Size (B): 80225, **F1**: 9.1%, (**Precision**: 71.4%, **Recall**: 4.9%)

Participant High F1@K: 57.4% (watstack), **Median F1@K**: 33.0%

5 Deepest Sampled Highly Relevant Documents: nau57d00-4984.9 (fullset09-6910192), ejw50c00-4984.9 (fullset09-6910192), upy40f00-4984.9 (fullset09-6910192), xeq02a00-4925.1 (watlogistic-1380795), xnp10d00-4833.3 (H52008W-608807)

5 Deepest Sampled Other Relevant Documents: qrc75c00-4984.9 (fullset09-6910192), mwz98e00-4984.9 (fullset09-6910192), nef76c00-4984.9 (fullset09-6910192), ngw12c00-4984.9 (fullset09-6910192), jkf83f00-4984.9 (fullset09-6910192)

Topic 104 (2008-I-3)

Request Text: All documents discussing or referencing payments to foreign government officials, including but not limited to expressly mentioning "bribery" and/or "payoffs."

Initial Proposal by Defendant: `(bribery OR payoffs) AND payments AND "foreign government officials"`

Rejoinder by Plaintiff: `(payment! OR transfer! OR wire! OR fund! OR kickback! OR payola OR grease OR bribery OR payoff!) AND (foreign w/5 (official! OR ministr! OR delegat! OR representative!))`

Final Negotiated Boolean Query: `(payment! OR transfer! OR wire! OR fund! OR kickback! OR payola OR grease OR bribery OR payoff!) AND (foreign w/5 (official! OR ministr! OR delegat! OR representative!))`

Sampling: 6910192 pooled, 2500 assessed, 57 judged highly relevant, 209 other judged relevant, 2233 judged non-relevant, 1 gray, "C"=6.93

Est. Rel.: 449829.6 (including 86689.5 estimated highly relevant)

Final Boolean Result Size (B): 2680, **F1**: 0.1%, (**Precision**: 9.1%, **Recall**: 0.1%)

Participant High F1@K: 10.0% (ucedlsi), **Median F1@K**: 3.5%

5 Deepest Sampled Highly Relevant Documents: azj59d00-4975.1 (fullset09-6910192), fep38c00-4975.1 (fullset09-6910192), maa49d00-4975.1 (fullset09-6910192), rlv33d00-4975.1 (fullset09-6910192), mqx81c00-4886.5 (watstack-1491393)

5 Deepest Sampled Other Relevant Documents: mol49d00-4975.1 (fullset09-6910192), jyk80f00-4975.1 (fullset09-6910192), qhp18c00-4975.1 (fullset09-6910192), ahd83f00-4975.1 (fullset09-6910192), jgb96c00-4975.1 (fullset09-6910192)

Topic 105 (2008-F-1)

Request Text: Please produce all reports, written memoranda, correspondence, and other documents related to building design compliance or noncompliance with structural standards, and compliance or noncompliance with structural regulations.

Initial Proposal by Defendant: `building and design and (compliance OR noncompliance) and "structural standards" OR "structural regulations"`

Rejoinder by Plaintiff: `(build! OR structure!) AND (design! OR plan OR scheme OR blueprint) AND (compliance OR comply OR complies OR obey! OR correspond! OR meet! OR adhere! OR conform!) AND (regulat! OR code! OR law! OR ordinanc! OR rule! OR statut!)`

Final Negotiated Boolean Query: `(build! OR structure!) AND (design! OR plan OR scheme OR blueprint) AND ((compliance OR comply OR complies OR obey! OR correspond! OR meet! OR adhere! OR conform) w/5 (regulat! OR code! OR law! OR ordinanc! OR rule! OR statut!))`

Sampling: 6910192 pooled, 2500 assessed, 90 judged highly relevant, 240 other judged relevant, 2112 judged non-relevant, 58 gray, "C"=6.56

Est. Rel.: 105960.3 (including 21722.0 estimated highly relevant)

Final Boolean Result Size (B): 36549, **F1**: 6.5%, (**Precision**: 12.4%, **Recall**: 4.4%)

Participant High F1@K: 33.8% (otL09F), **Median F1@K**: 18.1%

5 Deepest Sampled Highly Relevant Documents: wok06c00-4633.2 (watlogistic-414092), jyw54d00-4371.9 (otL09F-228201), lvs71a00-4014.4 (ucedlsi-133545), bwl91f00-

1658.2 (RMITbp1-16269), jli62f00-1161.5 (UrsinusBM25b-9921)

5 Deepest Sampled Other Relevant Documents: ebr85e00-4976.4 (fullset09-6910192), dje94f00-4721.2 (otL09F-555306), dms58e00-4501.9 (ucscra-296359), tas55c00-4325.7 (watrrf-210333), hfp67e00-4304.6 (otL09F-202945)

Topic 138 (2008-G-9)

Request Text: All documents describing or detailing instances of government subsidies for competitive local products.

Initial Proposal by Defendant: `(China OR Hong Kong OR Japan OR Taiwan OR India OR Philippines OR Cambodia OR Vietnam OR North Korea OR South Korea OR Thailand ) AND (Government w/5 subsidy)`

Rejoinder by Plaintiff: `(China OR CN OR PRC OR Hong Kong OR HK OR Japan OR JP OR Taiwan TW OR ROC OR India OR Philippines PH OR Cambodia OR KH OR Vietnam OR VN OR North Korea KP OR South Korea OR KP OR Thailand OR Asia OR EMEA OR Government OR Market) AND (Subsid!)`

Final Negotiated Boolean Query: `(China OR CN OR PRC OR "Hong Kong" OR HK OR Japan OR JP OR Taiwan OR TW OR ROC OR India OR Philippines OR PH OR Cambodia OR KH OR Vietnam OR VN OR "North Korea" OR "South Korea" OR KP OR Thailand OR Asia OR EMEA OR Government OR Market) AND (Subsidy OR subsidies)`

Sampling: 6910192 pooled, 2500 assessed, 97 judged highly relevant, 194 other judged relevant, 2156 judged non-relevant, 53 gray, "C"=6.18

Est. Rel.: 98654.8 (including 12946.0 estimated highly relevant)

Final Boolean Result Size (B): 16279, **F1**: 9.3%, (**Precision**: 36.8%, **Recall**: 5.3%)

Participant High F1@K: 18.1% (watstack), **Median F1@K**: 7.2%

5 Deepest Sampled Highly Relevant Documents: qme56e00-4763.9 (ucedlsi-623509), ttb92f00-3748.4 (xrefL08P-92544), cnu01a00-2216.7 (RMITbp2-24611), jim60c00-837.6 (UMDAURCP3-6218), cwb75c00-406.3 (UCEDLSIa-2733)

5 Deepest Sampled Other Relevant Documents: kts21d00-4977.7 (fullset09-6910192), kam81c00-4977.7 (fullset09-6910192), nma53c00-4815.3 (otL09rvl-805725), ctu40e00-4810.1 (watrrf-782681), ahd90d00-4807.6 (ucscra-772207)

Topic 145 (2008-H-4)

Request Text: All documents concerning actual or projected sales.

Initial Proposal by Defendant: `"actual sales" OR "projected sales"`

Rejoinder by Plaintiff: `(estimate! OR anticipate! OR forecast! OR actual OR project!) w/5 sales`

Final Negotiated Boolean Query: `(estimate! OR anticipate! OR forecast! OR actual OR project!) w/2 sales`

Sampling: 6910192 pooled, 2500 assessed, 419 judged highly relevant, 258 other judged relevant, 1816 judged non-relevant, 7 gray, "C"=5.60

Est. Rel.: 461322.3 (including 143094.7 estimated highly relevant)

Final Boolean Result Size (B): 40315, **F1**: 8.4%, (**Precision**: 55.0%, **Recall**: 4.6%)

Participant High F1@K: 43.2% (uclsi), **Median F1@K**: 27.4%

5 Deepest Sampled Highly Relevant Documents: brh03a00-4851.5 (otL09rvl-915531),

ebm21a00-4846.4 (otL09F-884217), dbv05e00-4725.3 (otL09F-482083), wak62e00-4620.3 (uclsi-340995), fyq33c00-4528.8 (watlogistic-269316)

5 Deepest Sampled Other Relevant Documents: hnl47c00-4979.8 (fullset09-6910192), ach12c00-4979.8 (fullset09-6910192), ejm05c00-4979.8 (fullset09-6910192), kzr10e00-4979.8 (fullset09-6910192), lrd83d00-4979.8 (fullset09-6910192)

References

[1] TREC Legal Track Home Page. http://trec-legal.umiacs.umd.edu/.