

# My Next Paper

Jan R. Benetka  
Norwegian University of  
Science and Technology  
benetka@idi.ntnu.no

Richard Feynman, Albert Einstein  
University of West Bohemia  
{richie,albert}@zcu.cz

## ABSTRACT

The first sip introduces something smooth and creamy to the palate, but beneath lies something very powerful. Mouthfeel is dense, chewy, syrupy and slick with candied fruits and a massive malty backbone with caramel, toffee and toasted bread. The heat (perceived alcohol) on this one is quite high, with a big 10 percent alcohol spice that melds well with rye bread crust flavors, rounded with berry-like fruit esters that make your heart skip a beat. The palate is then subjected to a salty, sticky hop resin with a sharp citric edge that smacks of half a pink grapefruit with 10 sugar packets on it (just the way Grandma likes it). Hops character is actually quite complex, continuing with some dry aspirin. Rye and bread flavors become more pronounced in the linger, as the beer dries and sheds a near-carob character across the palate. Alcohol gets a bit funky and warming. Finish is oily, resinous, herbal and raw.

## CCS CONCEPTS

• **Information systems** → **Recommender systems**; *Mobile information processing systems*; *Query intent*; *Search interfaces*; *Probabilistic retrieval models*;

## KEYWORDS

Zero-query, information retrieval

### ACM Reference Format:

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## 1 INTRODUCTION

We [1] sampled a few 12-ounce bottles of this cider, chilled down to 40 degrees. Light, fizzy bubbles rise to the top while pouring. Very pale yellow color. Low carbonation. At first glance, you might almost think this is a white wine. Smells of a blend of Pink Lady, Granny Smith and McIntosh apples; a bit buttery and musty in the back. Sulfites are very hard to detect. Very light body, very white-wine-ish. Tartness leads the way, soft but with a bite. Light, earthen notes; apple skin and apple pulp, middle to back. Sweet and sour apple flavor in the middle. Kiss of warmth from the alcohol.

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Wet and refreshing; almost too drinkable. At 6 percent alcohol by volume, any more than a few glasses will make you loopy<sup>1</sup>.

## 2 RELATED WORK

Ordered by the pint, the orange-colored beer shimmers with deep red and brown hues, and is topped with a healthy lace. The nose offers a very soft, mixed bag of spices and faint notes of pumpkin meat beneath some maltiness. The aroma is delicate at first, opening up as the beer warms. Carbonation is tight on the palate, a bit sharp. More soft and powdery spices emerge, reminiscent of the holidays. The pumpkin is subtle, with hints of starch. There's just enough malty sweetness as not to overwhelm the spicing or pumpkin, with an interesting bit of burnt sugar around the edges and, at times, suggestions of oranges.

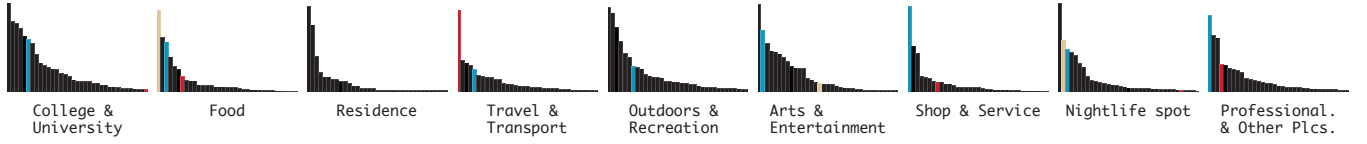
**Table 1: Evaluation of recall at various cutoff points. #Needs is the number of norm. information needs according to the ground truth.**

Category		#Needs	R@10	R@20	R@All
College & University		27	0.22	0.37	0.74
		15	0.53	0.53	0.73
Food		36	0.22	0.25	0.28
Residence		25	0.24	0.36	0.48
Travel & Transport		19	0.26	0.53	0.89
Outdoors & Recreation		22	0.23	0.27	0.68
Arts & Entertainment		22	0.23	0.36	0.77
Shop & Service		18	0.33	0.50	0.78
Nightlife Spot		31	0.26	0.39	0.65
Professional & Other Places		23.9	0.28	0.40	0.67
Average					

## 3 PROBLEM DEFINITION

Brewed with hand-smoked malt from red and white oak from a forest in Orange County, VA, on land once owned by James Madison. Hazy, slightly muddy brown with orange and copper hues around the edges. Beige head with some initial foam, but it quickly settles to a thin wisp. Raw and wheaty aroma with a hint of smoked malts and a faint suggestion of cocoa powder. Otherwise, pretty clean in the nose. Watery and very light in the mouth. Thin caramel and toasty malt character, with a bread crust linger and soft chocolatey edge. Carbonation livens the palate up with a zest that pulls with it a slight citric bitterness and banana-like pithiness that sits among the wheat and rye flavors. Tangy rye with some spice and smoky malt character rounds off the brew, with a lingering, bittersweet, toasty

<sup>1</sup>[https://breue.com/beer\\_ipsum](https://breue.com/beer_ipsum)



**Figure 1: Distributions of information needs per category (top 35 depicted). Bars represent information needs, the size of the bars is proportional to the number of times the information need appears for that activity ( $n(i, a)$ ). Highlighted information needs are ‘operating hours’ (blue), ‘menu’ (yellow), and ‘airport’ (red).**

bread finish in tote. Mouth is left dry and a bit sour. Wasn’t working for us at first, but once the beer warmed, the flavors began to emerge. We can imagine that this is as close as one could probably get using modern-day brewing equipment and methods. Most appealing brew of the pack.

## 4 METHODS

Poured into a goblet, the beer offers some amazing head retention and rings of white lace sticking to the glass after each sip. Good clarity, with a dull golden color. The nose contains apricots and pear, faint ground white pepper, chalky yeast and an aroma of shortbread biscuits. It’s very crisp and lively with a smooth back and moderate body. Spicy phenols wrap around its dry maltiness, which is similar to crusty bread, highlighted by some pithy notes of green banana. Spicy hops, with a flare from the alcohol, provide a nice bite along with a moderate grassy bitterness. Earthy on the palate with a flash of honey-like sweetness. Yeasty and fruity undertones layer middle to end. Finishes dry.

$$P_{M2}(i|a_{last}) = \gamma P(i|a_{last}) + (1 - \gamma) \sum_{a_{next}} P(i|a_{next})P(a_{next}|a_{last}).$$

## 5 EXPERIMENTS

A rich-looking, deep-copper-hued beer, leaning toward the dark side, with an off-white foam head that drops to a fine ringed lace. Aroma is unique. Uniquely British, with a suggestion of dryness, metallic hints, prominent nutty malt character, interesting orchard-esque notes, deep caramel beneath, toasty and soft powdery spices. Lively in the mouth, with a slightly crisp carbonation that peaks and provides some creaminess. Medium, even-bodied, with a round fullness about it. Quite dry up front, with slightly abrasive raw, leafy and pithy characters mixed with some tamed hop bitterness. Wood and earth? Yeah, a bit. Some fruity and berry-like tartness, reminiscent of holiday pie fillings and plump, juicy, almost over-ripe black cherries. Definite apple flavors follow fruit, as well as juicy pear. Robust and hearty as far as beers go. Toasty malts, bready, crust-like. Watery toffee, with hints of vanilla beneath. Dusting of cinnamon. Orange zest flavors become more pronounced as the beer warms, pulling through toward the finish. Man, this beer is all over the place. Quite dry in the finish, with a lingering yeasty character, touch of toasty sweetness and a bitey feel on the palate.

## 6 RESULTS

Smooth, thick and viscous on the palate, with a full and robust body. For a moment, it’s sweet and tropical, then hops rush in and tear it

all to shreds! The lip-smacking hop profile roams all over the place, as a sticky pine and a slightly burnt resinous coating forms on the palate. Intensely spicy, with a big grape-fruity zest and a sugary, warming alcohol that smacks you upside the head for noticing it. Malt-wise, caramel and bread flavors clamor to be heard, but the hops entangle them and draw them back into the depths of the brew, where they die. Malt flavors are there, but they add sweetness and body versus anything distinct enough to challenge the hops.

### Algorithm 1 Evaluation algorithm (second-level activities)

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1:  $T^{100} \leftarrow t_1, \dots, t_{100} \in T_{test}$   $\triangleright$ Most frqnt.  $2^{nd}$ -lev. transit.
2:  $n \leftarrow 10$   $\triangleright$ Number of inf. needs to consider.
3:  $results \leftarrow \emptyset$   $\triangleright$ Store NDCG results per trans.
4: for each transition  $t = \langle t_a, t_b \rangle \in T^{100}$  do
5:    $judgments \leftarrow \emptyset$ 
6:    $needs \leftarrow top_n needs(t_a) \cup top_n needs(t_b)$ 
7:   for each  $n \in needs$  do  $\triangleright$ Crowdsourcing assessments.
8:      $judgments_t \leftarrow crowd\_rating(n, t)$ 
9:   end for
10:   $ranking_t \leftarrow model(t_a)$   $\triangleright$ Ranking from our model.
11:   $results \leftarrow ndcg(ranking_t, judgments_t)$ 
12: end for
13:  $avg(results)$   $\triangleright$ Calculate average NDCG value.
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## 7 CONCLUSIONS AND FUTURE WORK

Body is light, and the mouthfeel smooth. The palate gathers apple peel, light clove notes and a thin sweetness that’s touched with caramel. In the middle, ripe and juicy fresh wheat malt with pear edge, while a husky, grainy, wheat twang livens things up. Suggestions of bubblegum are noted. There’s very little bitterness, but a slight lemony sourness, banana pith and light hop leaf character that, combined, increase the perceived bitterness. Yeast is rather neutral, a bit chalky. Some medicinal phenols show through toward the finish. Finish dries the palate, with a lingering wheat and barley husk.

## REFERENCES

- [1] Jan R. Benetka, Krisztian Balog, and Kjetil Nørkvåg. 2017. Anticipating Information Needs Based on Check-in Activity. In *Proc. of the Tenth ACM International Conference on Web Search and Data Mining (WSDM ’17)*. ACM, New York, NY, USA, 41–50.