Supplementary Material

Supplement Table 1. Examined prompt headers for zero-shot ChatGPT. Sample variations of ChatGPT outputs are shown. The selected prompt header is bolded.

Prompt Header	Sample Prompt Content	Sample Output 1	Sample Output 2	Sample Output 3
Here I have a few paragraphs. Please extract the food entities from each paragraph. List out all food entities as a new line. Paragraph number should be listed to indicate where the entity was extracted from. Do not write anything in addition to extracted food terms.	turkey salad pickle saltine cracker, turkey mayonnaise mixed pizza, pizza	1. Turkey salad, pickle saltine cracker, mayonnais e 2. pizza	 Turkey Salad Pickle Saltine cracker Mayonnais e Pizza 	 Turkey Salad Pickle Saltine cracker Mayonnais e Pizza
I want to identify the food entities from a set of paragraphs below. Here are some instructions: 1) Repetitive food entities should be listed out multiple times. 2) Each entity should be listed on a new line. 3) After extracting from one paragraph, add a new line to the last identified food entity to indicate end.		turkey salad pickle saltine cracker mayonnaise pizza pizza	1. turkey 2. salad 3. pickle 4. saltine cracker 5. mayonnais e 6. pizza	7. turkey 8. salad 9. pickle 10. saltine cracker 11. mayonnais e 12. mixed 13. pizza 14. pizza
Identify the food terms from the set of paragraphs below. Paragraphs are separated by new line.		1. turkey salad 2. pickle 3. saltine cracker 4. mayonnais e 5. pizza	1. The turkey salad includes a combinatio n of turkey, pickles, and saltine crackers,	Paragraphs contain food terms, turkey salad, pickle, saltine cracker, turkey mayonnaise mixed, and pizza.

Supplement Table 2 further analyzes the performance of FoodIE and ChatGPT on the different food entity types. We observe ChatGPT performs substantially better compared to FoodIE on FOOD_ABAC and FOOD_BRAND entity types. From this, we infer that ChatGPT catches more abbreviated food entities and branded foods compared to FoodIE.

Supplement Table 2. food-NER results on PGMR grouped by entity type. The percent of identified entities is seen in parenthesis.

FoodIE food-NER

ChatGPT food-NER

Categories True Positive		False Partial Negative		True Positive	False Negative	Partial	
General	973 (0.122)	6876 (0.863)	118 (0.015)	4611 (0.579)	3278 (0.411)	78 (0.010)	
Abbreviation	4 (0.091)	40 (0.909)	0 (0.000)	20 (0.455)	24 (0.545)	0 (0.000)	
Branded Food	7 (0.028)	236 (0.937)	9 (0.036)	154 (0.611)	91 (0.361)	7 (0.028)	

Supplementary Table 3 Concept mapping performance of the different pipelines. Whole numbers indicate the number of entities that could be considered as correctly mapped with different Levenshtein distance thresholds. The percentage of identified entities over the total number of entities in each category is presented in parenthesis.

Pipeline		Full Match	90% Match	80% Match	70% Match	60% Match	50% Match	40% Match	30% Match	20% Match	10% Match
	General	2831 (0.373)	2831 (0.373)	2834 (0.373)	2879 (0.379)	3052 (0.460)	3491 (0.460)	4289 (0.565)	5170 (0.681)	6875 (0.906)	7500 (0.988)
Manual	Abbreviation										
Annotation	Branded										
	Food										
FoodIE	General										
	Abbreviation										
	Branded										
	Food										

Pipeli		Fully	90%	80%	70%	60%	50%	40%	30%	20%	10%
ne		Match									
Manual	General	2831	2831	2834	2879	3052	3491	4289	5170	6875	7500
Annotati		(0.373)	(0.373)	(0.373)	(0.379)	(0.402)	(0.460)	(0.565)	(0.681)	(0.906)	(0.988)
on	Abbreviati	1	1	1	1	1	3	8	20	27	42
	on	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)	(0.068)	(0.181)	(0.454)	(0.613)	(0.954)

	Branded	3	3	3	3	4	21	36	62	87	183
	Food	(0.016)	(0.016)	(0.016)	(0.016)	(0.021)	(0.113)	(0.194)	(0.335)	(0.470)	(0.989)
	Total	2896	2896	2899	2953	3142	3643	4581	5593	7412	8393
		(0.341)	(0.341)	(0.341)	(0.347)	(0.370)	(0.429)	(0.539)	(0.658)	(0.872)	(0.988)
FoodIE	General	741	741	752	819	1097	1565	2309	3867	6088	7138
		(0.097)	(0.097)	(0.099)	(0.107)	(0.144)	(0.206)	(0.304)	(0.509)	(0.802)	(0.941)
	Abbreviati	0	0	0	0	0	1	5	13	27	31
	on	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.022)	(0.113)	(0.295)	(0.613)	(0.704)
	Branded	1	1	1	1	3	9	18	59	126	158
	Food	(0.005)	(0.005)	(0.005)	(0.005)	(0.016)	(0.048)	(0.097)	(0.318)	(0.681)	(0.854)
	Total	784	784	796	870	1165	1676	2553	4276	6816	7961
		(0.092)	(0.092)	(0.093)	(0.102)	(0.137)	(0.197)	(0.300)	(0.503)	(0.802)	(0.937)
ChatGP	General	2150	2150	2164	2254	2556	3197	4112	5618	7265	7583
T		(0.283)	(0.283)	(0.285)	(0.297)	(0.336)	(0.421)	(0.542)	(0.740)	(0.957)	(0.999)
	Abbreviati	2	2	2	2	2	5	11	28	41	44
	on	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)	(0.113)	(0.25)	(0.636)	(0.931)	(1)
	Branded	7	7	7	7	9	22	40	101	156	185
	Food	(0.037)	(0.037)	(0.037)	(0.037)	(0.048)	(0.118)	(0.216)	(0.545)	(0.843)	(1)
	Total	2283	2283	2299	2403	2736	3447	4512	6227	8118	8489
		(0.268)	(0.268)	(0.270)	(0.283)	(0.322)	(0.405)	(0.531)	(0.733)	(0.956)	(0.999)