

# EYE OF JUDGEMENT: DISSECTING THE EVALUATION OF RUSSIAN-SPEAKING LLMs WITH POLLUX

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## ABSTRACT

Evaluating open-ended generation remains a highly non-trivial challenge, as responses vary in style, quality, and correctness, making reliable assessment difficult. To address this, we introduce **POLLUX**, an open-source framework for evaluating Russian-speaking large language models (LLMs). Its novelty lies in a criteria-based methodology that improves interpretability by combining a structured benchmark with a family of LLM-as-a-Judge evaluators. For each task type, we define explicit criteria and a scoring protocol in which models not only rate responses but also justify their judgments, offering a transparent alternative to resource-intensive human comparisons. The benchmark spans 35 task types across domains such as code generation, creative writing, and assistant-style interactions, supported by 2,115 expert-authored prompts stratified by difficulty. In addition, we release specialized evaluators (7B and 32B) trained for fine-grained assessment of generative outputs. By uniting a comprehensive taxonomy with automated judges, POLLUX provides scalable and interpretable evaluation tools that move beyond the costs and inconsistencies of human annotation.

## 1 INTRODUCTION

Evaluating the open-ended outputs of large language models (LLMs) remains a significant challenge. While the emerging *LLM-as-a-Judge* paradigm offers a promising, scalable, and human-aligned solution, its current application is critically limited. These approaches are not only predominantly focused on English but have also failed to resolve the fundamental issue of interpretable assessment even within that language. The effectiveness and interpretability of this paradigm for other languages, such as Russian, thus constitute a severe and unexamined problem. To address these dual limitations, we propose **POLLUX**, a framework and comprehensive methodology for evaluating the generative capabilities of LLMs that provides a scalable yet interpretable solution.

Benchmark features a fine-grained hierarchical taxonomy of 35 generative task types inferred from open LLM usage logs spanning diverse domains, including code generation, creative writing, and practical assistant applications, with a total of 2,115 manually crafted prompts. Each task is annotated by an explicitly formulated difficulty level (easy/medium/hard) and constructed entirely from scratch by domain experts to ensure high-quality, unbiased evaluation data. We define a detailed set of criteria for each task type. We also develop a transparent scoring protocol where models assess responses and generate open-ended justifications for their ratings. Moreover, we release a family of LLM-as-a-Judge models (7B and 32B parameters) trained to perform criteria-aligned assessments based on the proposed methodology of generative outputs, both with a score and textual feedback. Our approach aims at a criteria-driven, reproducible evaluation framework, reducing reliance on costly and less consistent human side-by-side comparisons. An overview of POLLUX is presented in Figure 1. The key contributions of this work include:

- A *general methodology* for LLM evaluation, comprising:
  - A hierarchical *taxonomy of generative tasks*, categorized by complexity and domain.
  - A fine-grained *taxonomy of criteria* for systematic evaluation.
- An *open benchmark* with prompts and annotations verified by experts.
- The release of *LLM-as-a-Judge evaluators* (7B and 32B) for automated assessment.

The benchmark, code, and models are available at the provided link <sup>1</sup>

<sup>1</sup>The links have been disabled to preserve anonymity. The benchmark, code, and models are provided under the MIT license.

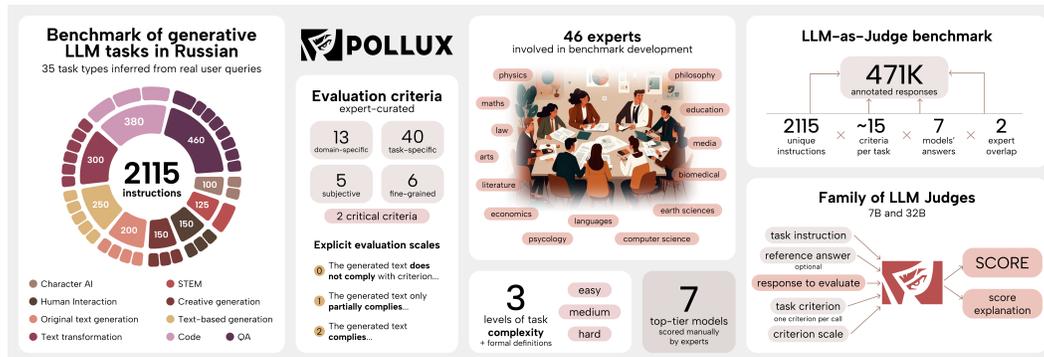


Figure 1: POLLUX overview and rounded statistics before filtering: benchmark characteristics, including tasks and criteria, information about the experts involved in creating the data, the overflow of LLM-as-a-Judge models, and the synthetic data used for them.

## 2 RELATED WORK

The evaluation of LLMs employs distinct benchmarking paradigms. Static benchmarks (like BIG-bench Srivastava et al. (2023), HELM Bommasani et al. (2023), MMLU Hendrycks et al. (2021), HumanEval Chen et al. (2021)) target expert knowledge, reasoning, and coding. Generative benchmarks (MT-Bench Zheng et al. (2023)) utilize open-ended prompts, which are scored by humans or LLMs-as-judges. Recent efforts (WildBench Lin et al. (2025), Preference Bench Kim et al. (2024), Auto-J Eval Li et al. (2023)) stress realism and scalable automation, while Chatbot Arena Chiang et al. (2024) enables crowd-based comparisons but faces criticism on fairness Singh et al. (2025).

In the Russian context, benchmarks such as Russian SuperGLUE Shavrina et al. (2020) and TAPE Taktasheva et al. (2022) remain largely static and classification-oriented. MERA Fenogenova et al. (2024) introduced a broader generative evaluation, yet most others (LIBRA Churin et al. (2024), RuBLiMP Taktasheva et al. (2024), RuBia Grigoreva et al. (2024)) still emphasize closed-answer tasks. REPA Pugachev et al. (2025) adds error-type annotations but is model-specific and error-based. Overall, open-ended, human-centered generative benchmarks for Russian-speaking LLMs are still lacking, leaving a major gap in evaluation.

## 3 THE POLLUX GENERATIVE BENCHMARK

Our objective is to emulate the full spectrum of generative, open-ended tasks that can be posed to an AI assistant, and to establish a framework for evaluating the resulting outputs using interpretable criteria, rather than relying exclusively on surface-level assessments, such as those employed in Arena-like A/B testing approaches. Thus, we propose the POLLUX benchmark, which provides a quantitative and qualitative evaluation of LLMs across tasks-criteria taxonomy and expert-annotated data. The methodology is based on: 1) the **generative tasks taxonomy**, covering 35 categories derived from real LLM interactions and further expanded by functional styles, genres, and three complexity levels; and 2) the **criteria taxonomy**, comprising domain-, task-, fine-grained, subjective dimensions, each equipped with dedicated scoring rubrics. The benchmark encompasses 2,115 unique instructions across 5 functional styles.

### 3.1 THE GENERATIVE TASKS TAXONOMY

To obtain a hierarchy of generative tasks, a two-stage procedure was applied. The first stage involves bottom-up category mining using instruction clustering, and the second stage marks the point at which the specialized knowledge of domain experts is applied.

**Organizing use cases into task taxonomy** We used the WildChat-1M dataset Zhao et al. (2024) as a source of user-LLM interactions. From its 87K Russian sessions (270K prompts), we applied deduplication using the rapidfuzz WRatio function <sup>2</sup> (threshold 95), removed toxic content

<sup>2</sup>rapidfuzz WRatio

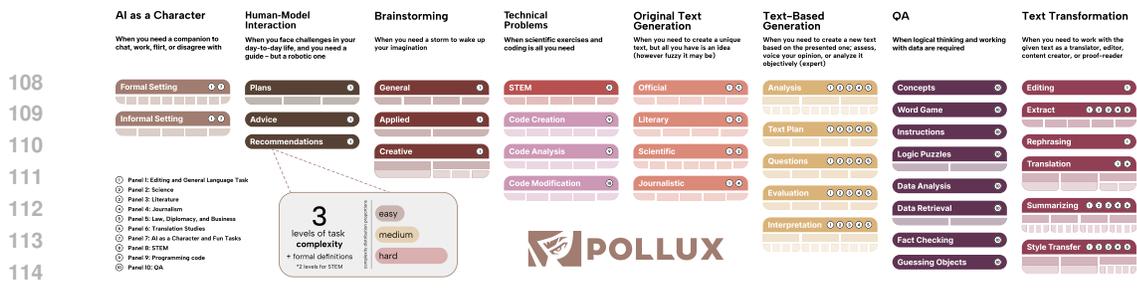


Figure 2: The POLLUX generative taxonomy of tasks. The labeled figures highlighted in bright colors are major 35 task groups. Each task group is annotated with corresponding expert panels. The sections within task types schematically illustrate the depth of decomposition within each taxon.

per original annotations, excluded prompts over 200 words, and deduplicated via hash of the first and last 200 characters. The final corpus contains 181K user prompts. Then clustering in the form of BERTopic<sup>3</sup> Grootendorst (2022) pipeline was executed on the instructions embeddings concatenated with embeddings of definitions of corresponding tasks (e.g. *debug code* or *paraphrase text*), which were generated with Llama-3-8B-Instruct<sup>4</sup> Grattafiori et al. (2024), yielding 4,500 clusters. Three annotators (agreement: 0.81) labeled centroids concisely. Definitions appearing at least 2 times (43.5% of centroids) were removed. The remaining 81 labels were merged based on shared skills, resulting in 35 final task types.

**Expert refining** We adopted a functional–stylistic classification Kozhina et al. (2011) comprising five core textual styles (e.g., Literature, Science) as the superstructure of the taxonomy. Ten expert panels — comprising specialists in relevant task types — identified genre-specific tasks, resulting in a hierarchical taxonomy of 152 fine-grained tasks (grouped into 35 major categories) spanning 15 literary movements, 17 canonical authors, and 93 substyles and genres. Each task includes three levels of complexity (with the exception of STEM tasks, which comprise two levels), totaling 451 unique complexity definitions. The complete taxonomy, including all task definitions, complexity levels, and panel compositions, is illustrated in Figure 2.

### 3.2 THE CRITERIA TAXONOMY

We introduce a modular criteria system aligned with the Generative Tasks Taxonomy, enabling the construction of tailored evaluation sets per text based on its functional style and task. All criteria — each with defined scales and rubrics — focus on aspects *necessary* for assessing quality in relation to user intent and task type. For example, a style transfer task (text transformation) requires different criteria depending on the domain: fact preservation is critical in news, while style consistency is prioritized in science fiction, where facts may be fictional. Thus, the methodology selects only relevant criteria for each task–style combination, ensuring focused and efficient evaluation. While expandable, we prioritize systematic rigor over exhaustive coverage of all possible evaluation dimensions.

**Criteria system basis** Following Howcroft et al. (2020), this work bases its criteria framework on three levels of evaluation aspects, namely (i) context-independent assessment, and evaluation relative to (ii) input query and (iii) external data sources. Each of these levels is further bifurcated into Form and Content components, creating a comprehensive evaluation matrix  $M$ . Each expert panel  $i$  was responsible for populating the matrix  $M_i$  with evaluation aspects needed to assess the quality of responses to tasks that fall within the panel’s range of expertise. As all panel-specific  $M_i$ s were complete, the dedicated panel supervisors and five contributing authors of this paper aggregated those criteria from the collection of  $M_i$  that focus on universal text quality markers while deliberately ignoring style-specific characteristics.

To ensure the selected 22 criteria are independent of each other and do not correlate, the pairwise comparisons (totaling 231 comparisons) were performed by the same five contributing authors with an average agreement score of 0.72. Those pairs of criteria that have been voted as correlating by at least three annotators (13.8% of all pairs) were merged into a single criterion, leaving the final 13 independent criteria. These, in turn, were subdivided into *Critical*, *Fine-Grained*, and *Subjective* groups, which account for two, six, and five criteria, respectively. This first step yielded a

<sup>3</sup>MaartenGr/BERTopic  
<sup>4</sup>meta-llama/Meta-Llama-3-8B-Instruct

versatile criteria system that provided the scaffolding for subsequent stylistic customization. Expert panels adapted the *Fine-Grained* criteria by adding style-specific attributes and incorporating domain-relevant criteria from  $M_i$ , creating *Domain-specific* (13 criteria) and *Task-specific* (40 criteria) groups. Combined with *Critical*, *Subjective*, and *Fine-Grained* groups, this yields 66 total criteria (see Table 7 of the Appendix and Table 1) for criteria groups. In total, POLLUX suggests 66 criteria, of which 58 have unique labels. The overlap arises because some criteria belong to multiple criterion types and usage in specific tasks.

**Scoring system** A scoring system requires the design of both scales (numerical values representing compliance) and rubrics (rules for assigning scores) for each criterion. This research employs a discrete scale of 0/1/2 for all criteria, except for the Critical ones, which serve as binary indicators of major violations in the text. For STEM tasks, a scale of 0/1/2/3/4 is used, as the gradations of this scale are more distinguishable than those for functional style tasks. It is important to note that a score of zero is always considered poor.

Using a discrete scale in this context allows for clear interpretation of the scores based on the established rubrics. The choice of three possible values (inadequate/acceptable/excellent) reduces interpretative variance, as these values have clear, intuitive meanings. Additionally, three values are generally sufficient to uniquely rank models according to their overall performance. The criteria taxonomy is extensive and non-redundant, with a maximum pairwise Spearman correlation between expert ratings across criteria is 0.13. This indicates that the evaluation nuances are captured through the breadth of the scoring system rather than through detailed rubrics.

### 3.3 THE BENCHMARK COMPOSITION

**Creating instructions** A critical methodological consideration in POLLUX design was ensuring the utilization of unique texts to prevent potential contamination of evaluation results due to data leakage Deng et al. (2024). Expert panels wrote 50 instructions (10/15/25 for easy/medium/hard complexity levels, respectively) for each task category. STEM and three of the programming code-related tasks have 125 instructions, with 25 instructions per discipline or language, respectively. STEM instructions and code-related problems are categorized into 12/13 and 8/9/8 levels of complexity for high school/university and easy/medium/hard levels of difficulty. Panel experts were not permitted to use texts from the internet or consult printed or digitized sources. All 2,115 texts in POLLUX, including those with more than 7,000 characters (1.6% of all instructions), were written completely from scratch. The originality of instructions was further verified by panel supervisors.

POLLUX emphasizes the richness of the Russian language, with 4.9% of instructions (104) containing 416 stylistic devices (e.g., epithets, metaphors). It also includes 1.4% (30) ethically flagged instructions to test safety. Instructions were uniformly distributed across task subgroups. Two authors reviewed them for task and complexity alignment (agreement: 0.81); 16% were returned for revision. An editorial panel corrected spelling and misprints manually.

**Criteria annotation** The 2,115 instructions were processed by top 7 Russian-speaking LLMs (OpenAI o1 (2024-12-17), GPT-4o (2024-08-06), Claude 3.5 Sonnet (2024-10-22), Llama 3.1 405B, GigaChat-Max (1.0.26.20), YandexGPT (2024-10-23), T-Pro) using default parameters<sup>5</sup>. Each answer was evaluated against a tailored set of criteria, producing 170,288 evaluation triples ( $(instruction, answer, criteria)_i$ ). Experts annotated each triple, assigning scores and rationales. Criteria were assigned to specialized panels (Domain-specific: 5 style panels; Task-specific: task panels; Fine-Grained: Editing/Crowd; Critical/Subjective: Crowd plus style/task panels). Annotation overlap was 2 (Task/Domain), 5 (Critical), or 3 (Fine-Grained/Subjective)<sup>6</sup>. After removing samples with critical violations or format errors, the final dataset contained 161,076 samples and 471,515 point estimates. Experts spent 24,447 hours (avg. 50 min/answer; 3.1 min/criterion) at a cost of \$262,316. Statistics of the collected criteria are in Tables 8 and A.1 of the Appendix. The Human Baseline was estimated on a sample of 140 instruction–answer pairs, yielding 7,537 distinct criterion-level annotations (LLM-as-a-Judge was not evaluated on Human Baseline). The answers to the instructions were written by panel experts and scored by non-overlapping expert groups.

<sup>5</sup>API defaults and `generation_config.json` for Llama 3.1 and T-Pro.

<sup>6</sup>9.6% of Task/Domain estimates had disagreement; See Table 7 of the Appendix; results are robust to their exclusion.

**Cultural Characteristics and Generalization** The benchmark is specifically designed to evaluate Russian language capabilities. Consequently, the descriptions of tasks and subtasks, their complexity levels, and evaluation rubrics frequently reference specific linguistic features of the Russian language. The instruction set also incorporates colloquialisms and regionalisms in some classes of tasks. While the task taxonomy framework and criteria selection possess a universal structure that can be directly applied to other languages, the language-specific components (the task descriptions, examples, and rubrics) require careful adaptation to the target language while maintaining the core evaluative framework.

Criteria	Criteria Type	POLLUX LLM-as-a-Judge			Baseline LLM-as-a-Judge				
		Num Samples	7B	32B	DeepSeek-V3	gpt-oss-120B	Qwen3-235B-Instruct	Qwen3-235B-Thinking	GigaChat-2-Max
Format violation	Critical	10840	0.186	0.194	0.221	<b>0.602</b>	0.210	0.322	0.125
Cursor block	Critical	10924	0.486	0.526	0.592	0.581	<b>0.791</b>	0.789	0.530
User request formalization	Fine-grained	9252	0.281	0.298	0.295	<b>0.368</b>	0.331	0.304	0.251
Literacy	Fine-grained	1447	0.225	0.222	0.113	0.269	0.141	<b>0.316</b>	0.043
Absence of speech errors	Fine-grained	1050	0.159	0.181	0.062	0.268	<b>0.312</b>	0.263	0.097
No repetitions	Fine-grained	8758	0.074	0.091	0.055	<b>0.126</b>	0.085	0.115	0.054
No generation errors	Fine-grained	8733	0.157	0.172	0.179	<b>0.557</b>	0.420	0.372	0.137
Initiative	Fine-grained	8406	0.248	0.241	0.295	0.398	<b>0.428</b>	0.406	0.334
No fluff	Domain-specific, Task-specific	5030	0.334	0.339	0.404	0.367	0.458	<b>0.474</b>	0.423
Character adherence	Domain-specific	613	0.195	0.261	0.332	0.420	<b>0.424</b>	0.374	0.290
Genre adherence	Domain-specific	2009	0.049	0.087	0.064	0.123	0.116	<b>0.136</b>	0.068
Sources citing	Domain-specific, Task-specific	352	0.450	0.478	0.494	0.430	0.460	<b>0.549</b>	0.475
Cohesion and coherence	Domain-specific, Task-specific	5060	<b>0.066</b>	0.035	-0.026	0.034	-0.044	-0.034	-0.082
Real-world facts consistency	Domain-specific, Task-specific	3891	0.210	0.223	0.239	<b>0.360</b>	0.333	0.335	0.197
Terminology correctness	Domain-specific	1556	0.136	0.134	0.118	0.238	0.180	<b>0.239</b>	0.126
Creativity	Domain-specific, Task-specific	3977	0.241	0.236	0.210	0.248	0.190	0.257	<b>0.273</b>
Depth of elaboration	Domain-specific, Task-specific	4314	0.107	0.108	0.142	0.101	<b>0.203</b>	0.185	0.082
Ling. competence	Domain-specific	2554	0.155	0.187	-0.113	<b>0.205</b>	0.103	0.025	-0.151
Monologue nature	Domain-specific	562	0.253	<b>0.272</b>	0.183	0.170	0.168	0.225	0.149
Safety	Domain-specific, Task-specific	2470	0.178	0.168	0.228	<b>0.335</b>	0.246	0.278	0.064
Unambiguous language	Domain-specific	721	0.114	0.095	<b>0.235</b>	0.114	0.183	0.191	0.146
Apprehensibility	Subjective, Task-specific	9761	0.325	0.310	0.410	0.537	0.559	<b>0.569</b>	0.351
Beautiful formatting	Subjective	8779	0.491	0.519	0.701	<b>0.771</b>	0.707	0.748	0.607
Naturalness/non-synthetic speech	Subjective	8830	0.028	0.051	0.068	<b>0.168</b>	0.083	0.153	0.127
Usefulness	Subjective	9976	0.222	0.243	0.302	0.397	0.329	<b>0.400</b>	0.292
General impression	Subjective	10988	0.392	0.400	0.471	0.514	0.498	<b>0.515</b>	0.417
Literary accents	Task-specific	222	0.256	0.278	0.335	<b>0.408</b>	0.205	0.366	0.150
Applicability	Task-specific	1963	0.147	<b>0.154</b>	0.023	0.149	0.089	<b>0.154</b>	-0.000
Situation applicability	Task-specific	120	0.264	0.186	0.278	<b>0.463</b>	0.153	0.328	0.249
Assessment accuracy	Task-specific	299	0.212	0.207	<b>0.372</b>	0.340	0.358	0.339	0.087
Code cleanliness	Task-specific	748	<b>0.256</b>	0.237	0.183	0.236	0.141	0.157	0.221
Completeness	Task-specific	143	0.118	0.154	0.140	<b>0.390</b>	0.250	0.281	0.118
Language norms	Task-specific	312	0.091	0.094	0.205	-0.004	0.182	0.212	<b>0.224</b>
Author viewpoint	Task-specific	279	0.095	0.116	0.136	<b>0.278</b>	0.078	0.161	0.056
Compliance with functional style	Task-specific	1035	0.132	0.202	<b>0.281</b>	0.130	0.278	0.155	0.271
Original goal	Task-specific	319	0.155	<b>0.311</b>	0.181	0.289	0.253	0.215	0.169
Original tone	Task-specific	303	0.139	0.158	0.030	<b>0.455</b>	0.129	0.210	0.147
Correctness of results	Task-specific	3234	0.596	0.669	0.679	<b>0.724</b>	0.712	0.719	0.614
Correctness of the solution	Task-specific	857	0.586	0.652	0.696	0.725	<b>0.727</b>	0.692	0.615
Correctness of units of measurement	Task-specific	50	0.071	0.138	0.114	<b>0.393</b>	0.349	0.239	0.074
Dramaturgy	Task-specific	240	0.398	<b>0.417</b>	0.396	0.322	0.276	0.252	0.352
Dialog expressiveness	Task-specific	141	<b>0.271</b>	0.247	0.151	0.142	0.112	0.163	-0.029
Factual accuracy	Task-specific	305	0.329	0.374	0.193	0.296	0.318	<b>0.381</b>	0.162
Formatting according to structure	Task-specific	768	-0.126	-0.102	<b>0.038</b>	-0.194	0.034	-0.006	-0.188
Ingenuity	Task-specific	303	0.535	0.680	0.671	0.687	<b>0.724</b>	0.708	0.676
LaTeX script correctness	Task-specific	225	<b>0.428</b>	0.357	0.363	0.279	0.363	0.278	0.129
Level of expertise	Task-specific	1112	0.193	0.292	0.271	<b>0.457</b>	0.322	0.424	0.248
Verse Meter/rhythmic structure	Task-specific	153	0.058	-0.061	0.101	<b>0.225</b>	0.020	0.155	0.181
Objectivity	Task-specific	292	0.005	-0.016	-0.009	0.234	0.106	<b>0.249</b>	0.058
Operability	Task-specific	750	0.283	0.328	0.179	0.334	0.335	<b>0.365</b>	0.259
Optimal solution	Task-specific	1235	0.329	0.383	0.397	<b>0.453</b>	0.405	0.447	0.397
Preserving original idea/details	Task-specific	2435	0.163	0.189	0.071	<b>0.274</b>	0.070	0.193	0.106
Reasoning quality	Task-specific	399	0.427	0.565	0.684	0.679	0.723	<b>0.755</b>	0.639
Rhyme quality	Task-specific	146	0.139	0.037	0.163	<b>0.447</b>	0.092	0.211	0.157
Scientific credibility	Task-specific	390	0.346	0.451	0.473	0.496	<b>0.579</b>	0.493	0.452
Subjectivity	Task-specific	304	0.364	0.353	0.393	0.438	<b>0.461</b>	0.439	0.447
Sufficiency of the solution	Task-specific	828	0.454	0.433	0.399	<b>0.519</b>	0.465	0.505	0.376
Summarizing quality	Task-specific	313	0.264	<b>0.281</b>	0.153	0.175	0.030	0.180	0.157

Table 1: Spearman correlation coefficients between LLM-as-a-Judge and expert judges, aggregated by 58 unique criteria, grouped by taxonomy types. The complete criteria list consists of 58 unique criteria, grouped by taxonomy types, which in total yields 66 taxons for specific evaluation cases.

## 4 THE FAMILY OF LLM-AS-A-JUDGES

The POLLUX benchmark can serve as an instruction-based test for side-by-side evaluation; however, comprehensive assessment using its full set of annotated criteria demands specialized expertise and entails approximately 25,000 hours of manual labeling. To address this challenge, we complement POLLUX with two LLM-as-a-Judge models, comprising 7B and 32B parameters, which were fine-tuned to approximate the decision-making process of expert panels. These models take as input an instruction paired with a generated response, a criterion, and its associated rubrics, and output both a score aligned with the criterion’s scale and an accompanying textual rationale. Importantly, both models operate in a reference-free format. This section outlines the training corpus, fine-tuning methodology, and evaluation of the POLLUX LLM-as-a-Judge models.

#### 270 4.1 THE TRAINING DATASET

271  
272 It has been decided to employ synthetic data for training because (i) acquiring the manually com-  
273 posed training set of at least the same size as the POLLUX dataset requires the same amount of  
274 time and labor, and (ii) employing the same panels of experts potentially leads to data leakage. Syn-  
275 thetic data generation followed the same procedure outlined in Section 3.1. First, 78,000 instructions  
276 were generated based on the POLLUX tasks taxonomy and complexity levels by DeepSeek-R1 Guo  
277 et al. (2025), OpenAI GPT-4o<sup>7</sup> and o3-mini<sup>8</sup> in equal shares; see Appendix A.4 for the prompt  
278 employed for these services. Instructions that contained more than 5% non-Russian tokens and du-  
279 plicates were removed, resulting in a final dataset of 26,000 instructions. Then, synthetic instructions  
280 were mapped to the corresponding criteria sets. Answers for synthetic instructions were generated  
281 by 15 open-source LLMs in equal shares. Each instruction–answer–criteria example was annotated  
282 by DeepSeek-V3 Liu et al. (2024) with explanatory comments and a numerical score aligned with  
283 the respective criteria rubrics. At each stage, we used different models to avoid evaluation bias.  
284 We have verified that the synthetically generated training data maintains diversity comparable to the  
285 expert-annotated data. For detailed results and comparative statistics, refer to Table 8 of the Ap-  
286 pendix. To remove syntactic and semantic duplicates while preserving diversity (within each task  
287 type), we computed pairwise similarities using Qwen2-7B embeddings and chrF; we then calibrated  
288 task-specific thresholds as the 95th percentile of cosine and chrF computed on expert-written in-  
289 structions and, whenever a sample exceeded its task-specific threshold, applied an LLM-as-a-Judge  
290 (GigaChat-2-Max) to decide whether it was a semantic duplicate, removing it if confirmed. The re-  
291 sulting synthetic instruction set contains no semantic duplicates and preserves diversity comparable  
292 to the expert data.

#### 292 4.2 LLM-AS-A-JUDGE EVALUATION

293  
294 For the evaluation of the LLM-as-a-Judge approach, we constructed two distinct subsets from the  
295 test dataset: 1) *Zero-Shot Test* 2) *Human Dev*. These two subsets do not overlap, each containing  
296 unique instructions and outputs from the evaluated models. The *Zero-Shot Test* comprises task  
297 types and evaluation criteria that have not been previously encountered by the POLLUX LLM-as-  
298 a-Judge Family, either in training or synthetic datasets. This setting is designed to demonstrate the  
299 potential of the POLLUX LLM for assessing model quality on entirely novel tasks, introducing new  
300 evaluation criteria and corresponding scoring standards. The *Zero-Shot Test* includes the task types:  
301 AI as a Character (formal setting), AI as a Character (informal setting), Applied Brainstorming,  
302 Recommendations, Literary Text Generation, Code Modification, Style Transfer, Text-Dependent  
303 Question Answering. Additionally, the following evaluation criteria are present exclusively in the  
304 *Zero-Shot Test*, and have not previously been observed by the POLLUX LLM-as-a-Judge Family  
305 during training: Dialog expressiveness, Dramaturgy, Rhyme quality, Literary accents, Character  
306 adherence, Verse Meter/rhythmic structure. Conversely, the *Human Dev* consists of entirely unique  
307 instruction-answer pairs for the evaluated models; however, the types of tasks and evaluation criteria  
308 represented in this subset have previously been observed by the POLLUX LLM-as-a-Judge Family  
309 in its training data in the form of synthetic examples.

#### 310 4.3 EXPERIMENTS

311  
312 For the LLM-as-a-Judge training, we choose T-lite-it-1.0<sup>9</sup> and T-pro-it-1.0<sup>10</sup> for the base models of  
313 7B and 32B parameters, respectively. Both models are open-source and exhibit top-tier performance  
314 in their respective capacity classes according to the MERA leaderboard<sup>11</sup>. We trained T-lite-it-1.0  
315 and T-pro-it-1.0 in sequence-to-sequence format, when a criterion score is a part of the output text  
316 and is generated with the rationale. Both models were trained with a *learning rate* from  $1 \times 10^{-5}$   
317 to 0 over three *epochs*, utilizing the *AdamW optimizer* Loshchilov & Hutter (2017) on 64 Nvidia  
318 H100 80Gb GPUs with a total batch size of 256 and with cross-entropy objective for the sequence-  
319 to-sequence format.

320 <sup>7</sup><https://openai.com/index/hello-gpt-4o/>

321 <sup>8</sup>openai-o3-mini

322 <sup>9</sup>t-tech/T-lite-it-1.0

323 <sup>10</sup>t-tech/T-pro-it-1.0

<sup>11</sup><https://mera.a-ai.ru/ru/text/leaderboard>

4.4 EVALUATION

To examine the performance of the POLLUX models, we employ the POLLUX benchmark as the test set for Judge assessment and the REPA benchmark for Judge evaluation. The corresponding results are reported in Table 1, Table 2 and Table 4. As reference systems, we selected gpt-oss-120B, DeepSeek-V3 (also used as an automatic generator of reference scores for our LLM-as-a-Judge experiments), GigaChat-2-Max (Russian LLM) and M-Prometheus-14B Pombal et al. (2025), and we further included Qwen3-235B-Instruct and Qwen3-235B-Thinking. The two Qwen3 variants let us probe judging ability both in a standard instruction-tuned setting and in a reasoning mode. To evaluate the agreement of POLLUX LLM-as-a-Judges with these references, we used Spearman’s rank correlation (it measures rank agreement without assuming equal intervals).

Task Macrogroup	Task Type	Num Samples	POLLUX LLM-as-a-Judge				Baseline LLM-as-a-Judge			
			7B	32B	DeepSeek-V3	M-Prometheus-14B	gpt-oss-120B	Qwen3-235B-Instruct	Qwen3-235B-Thinking	GigaChat-2-Max
AI as a character	AI as a Character (formal)	6025	0.528	0.524	0.496	0.040	<b>0.606</b>	0.601	0.590	0.571
	AI as a Character (informal)	5173	0.594	0.607	0.598	-0.014	0.659	<b>0.660</b>	0.657	0.651
Brainstorming	Applied brainstorming	6452	0.596	0.615	0.614	0.003	<b>0.678</b>	0.665	0.644	0.608
	Creative brainstorming	5558	0.628	0.636	0.612	0.002	0.693	<b>0.696</b>	0.673	0.689
	General-purpose brainstorming	4650	0.652	0.650	0.578	0.064	0.699	<b>0.703</b>	0.673	0.686
	Word tasks (editorial brainstorming)	3992	0.722	0.768	0.755	0.137	<b>0.889</b>	0.848	0.854	0.830
Human-Model Interaction	Advice	5036	0.612	0.600	0.538	0.097	<b>0.685</b>	0.666	0.662	0.673
	Recommendations	5244	0.647	0.654	0.568	0.135	<b>0.710</b>	0.696	0.682	0.674
Text Generation	Plans	5286	0.645	0.636	0.572	0.002	0.662	<b>0.674</b>	0.651	0.651
	Journalistic text	6142	0.559	0.584	0.601	-0.008	0.664	0.664	<b>0.667</b>	0.618
QA	Literary text	6764	0.541	0.561	0.546	-0.033	<b>0.624</b>	0.598	0.608	0.587
	Official text	6279	0.581	0.583	0.576	-0.091	0.615	0.615	<b>0.618</b>	0.610
	Scientific text	6080	0.564	0.592	0.579	-0.021	<b>0.684</b>	0.658	0.613	0.621
	Concept explanation	5305	0.721	0.728	0.712	0.061	0.765	<b>0.767</b>	0.749	0.749
Technical problems	Data analysis	1040	0.831	0.833	0.859	-0.223	<b>0.885</b>	<b>0.885</b>	0.874	0.836
	Data retrieval	2697	0.786	0.793	0.821	0.067	0.854	0.862	<b>0.866</b>	0.810
	Describing objects game	1054	0.697	0.702	0.714	0.288	0.860	0.863	<b>0.894</b>	0.800
	Fact checking	1330	0.750	0.765	0.768	0.034	0.844	0.851	<b>0.864</b>	0.819
	Problem-solving activities	5305	0.721	0.754	0.741	0.061	<b>0.856</b>	0.848	0.844	0.806
	Writing instructions	1647	0.772	0.789	<b>0.855</b>	-0.009	0.816	0.845	0.790	0.800
	Code analysis	1766	0.576	0.609	0.692	0.164	0.691	<b>0.713</b>	0.689	0.642
Text-Transformation	Code creation	1842	0.462	0.511	0.506	0.221	<b>0.551</b>	0.501	0.461	0.476
	Code modification	1823	0.351	0.404	0.462	0.037	<b>0.469</b>	0.427	0.393	0.439
	Code modification	1823	0.351	0.404	0.462	0.037	<b>0.469</b>	0.427	0.393	0.439
	STEM exercises	2073	0.621	0.625	0.616	0.134	<b>0.682</b>	0.678	0.663	0.558
Text-Generation	Editing	5263	0.686	0.678	0.660	0.286	0.725	0.697	0.704	<b>0.727</b>
	Extract	4924	0.655	0.683	0.711	0.132	<b>0.816</b>	0.750	0.787	0.752
	Summarizing	5831	0.676	0.673	0.728	0.020	0.722	<b>0.750</b>	0.721	0.720
	Rephrasing	5077	0.680	0.677	0.666	0.254	0.720	<b>0.737</b>	0.709	0.717
	Style transfer	5977	0.506	0.495	0.541	0.049	<b>0.666</b>	0.625	0.619	0.610
Text-Based Generation	Translation, Eng-Rus language pair	5958	0.664	<b>0.668</b>	0.641	0.125	0.666	<b>0.668</b>	0.642	0.659
	Text analysis (objective)	6139	0.608	0.608	0.641	-0.003	0.700	<b>0.702</b>	0.694	0.614
	Text evaluation	6039	0.542	0.543	0.611	-0.015	<b>0.689</b>	0.668	0.643	0.147
	Text interpretation (subjective)	6081	0.650	0.652	0.721	0.062	0.723	<b>0.751</b>	0.732	0.693
Overall	Text plan	5682	0.585	0.581	0.579	-0.048	0.642	0.634	0.608	<b>0.658</b>
	Text-dependent questions	5542	0.660	<b>0.668</b>	0.634	-0.031	0.631	0.639	0.633	0.609
			0.632	0.641	0.633	0.089	<b>0.704</b>	0.689	0.678	0.633

Table 2: Spearman correlation coefficients between LLM-as-a-Judge and expert judges evaluated on the **Zero-Shot Test** and **Human Dev**, aggregated by task types. Underlined task types are exclusive to the Zero-Shot Test; regular font marks task types from the Human Dev.

To probe In-Context Learning (ICL) judging ability, we run controlled setups on the **Zero-shot Test** in Table 3: we augment each prompt with a varying number of exemplars drawn from the **Human Dev** and instruct the model to produce a step-by-step rationale before emitting its final score. We report performance as a function of the number of exemplars and the presence/absence of rationales. Since POLLUX was trained in an explain-then-judge mode, we evaluate it only in the rationale-required condition. We additionally report metrics for POLLUX-32B fine-tuned on the Human Dev set to better calibrate its scores to human judgments.

Mode	Num Shots	POLLUX LLM-as-a-Judge				Baseline LLM-as-a-Judge		
		7B	32B	fine-tuned 32B	DeepSeek-V3	gpt-oss-120B	Qwen3-235B-Instruct	Qwen3-235B-Thinking
w/o CoT	0	—	—	—	0.557	0.639	0.617	0.613
	1	—	—	—	0.586	0.644	0.612	0.636
	3	—	—	—	0.620	<u>0.656</u>	0.611	<u>0.655</u>
with CoT	0	0.575	0.584	<u>0.727</u>	0.549	0.644	0.616	0.611
	1	0.587	0.621	0.706	0.615	0.646	0.632	0.636
	3	<u>0.597</u>	<u>0.632</u>	0.704	<u>0.627</u>	<u>0.656</u>	<u>0.633</u>	0.653

Table 3: Spearman correlation coefficients between LLM-as-a-Judge and expert judges evaluated on the **Zero-Shot Test**. *Num Shots* indicates the number of example judgments on the same criterion drawn from the **Human Dev**. *CoT* (Chain of Thoughts) indicates whether step-by-step reasoning about the answer’s conformity to the criterion before generating the final score. For each model, the best setup is underlined.

To validate POLLUX Judge on the independent REPA side-by-side benchmark, we adopt two modes. In the Pairwise setting, the judge receives both candidate answers in a single prompt and must either select the better one or explicitly declare that both are good or both are bad. In the Pointwise setting, the judge scores each answer independently; we then compare the two scores: if both scores are 0, we label the pair both bad, if the scores are equal at any value  $> 0$ , we label both good, otherwise the higher-scoring answer is preferred. In both settings, we instantiate POLLUX’s judging criteria to be semantically aligned with the corresponding REPA criteria.

Mode	Criteria		POLLUX LLM-as-a-Judge		Baseline LLM-as-a-Judge				
	REPA	POLLUX	7B	32B	DeepSeek-V3	gpt-oss-120B	Qwen3-235B-Instruct	Qwen3-235B-Thinking	GigaChat-2-Max
Pairwise	Request Following	User request formalization	—	—	<u>0.372</u>	0.363	0.238	0.344	0.368
	Factuality	Real-world facts consistency	—	—	<u>0.481</u>	0.478	0.291	0.391	0.449
	Repetition	No repetitions	—	—	0.273	<u>0.420</u>	0.219	0.332	0.262
	Code-Switching	Format violation	—	—	0.099	0.147	0.190	0.161	<b>0.280</b>
	Relevance	No fluff	—	—	0.413	0.426	0.273	0.408	<u>0.428</u>
	Harmfulness	Safety	—	—	0.134	<u>0.154</u>	0.125	0.133	<u>0.154</u>
	Fluency	Literacy	—	—	0.079	0.146	0.162	0.106	<b>0.187</b>
	Contradiction	Cohesion and coherence	—	—	0.016	0.017	0.122	0.023	<b>0.135</b>
	Sudden Interruption	Format violation	—	—	0.380	<u>0.412</u>	0.247	0.398	0.345
	Refusal	Censor block	—	—	0.033	<u>0.094</u>	0.111	0.153	<u>0.154</u>
	Overall	General impression	—	—	0.472	<u>0.481</u>	0.265	0.447	0.464
	Pointwise	Request Following	User request formalization	0.486	0.481	0.502	0.518	0.438	<b>0.527</b>
Factuality		Real-world facts consistency	0.465	0.487	0.485	0.345	0.472	0.393	<b>0.505</b>
Repetition		No repetitions	0.331	0.320	0.448	<b>0.521</b>	0.419	0.517	0.383
Code-Switching		Format violation	0.142	0.139	0.233	<u>0.146</u>	0.269	0.208	0.271
Relevance		No fluff	0.490	0.457	0.500	<b>0.520</b>	0.499	0.516	0.508
Harmfulness		Safety	0.094	0.074	0.132	<b>0.298</b>	0.226	0.205	0.158
Fluency		Literacy	0.089	0.101	0.136	<u>0.162</u>	0.113	0.113	0.139
Contradiction		Cohesion and coherence	0.055	0.050	0.096	0.069	0.064	0.106	<u>0.120</u>
Sudden Interruption		Format violation	<b>0.553</b>	0.521	0.048	0.063	0.075	0.069	0.501
Refusal		Censor block	0.123	0.100	0.177	0.050	0.110	0.022	<b>0.203</b>
Overall		General impression	0.548	<b>0.554</b>	0.518	0.532	0.527	0.515	0.528

Table 4: F1-macro score on the REPA dataset. Maximum metric values within each criterion and mode are underlined; the maximum metric value for each criterion across both modes is shown in **bold**.

## 5 RESULTS AND DISCUSSION

The analysis of the POLLUX criteria annotation suggests that (i) even top-tier models like Claude 3.5 Sonnet and OpenAI o1 still lag behind human experts in tasks that heavily rely on creativity, and (ii) the ranking of models strongly depends on the aggregation method. Table 2 reveals that (i) even top-tier general-purpose LLMs are (yet) not able to fully substitute the domain-specific expert evaluation of texts (the correlation with the expert criteria annotation in the POLLUX Zero-Shot Test does not exceed 0.73) and (ii) the most advanced POLLUX LLM-as-a-Judge model (32B) now achieves a correlation of 0.73, outperforming all considered baselines, including OpenAI gpt-oss-120B, Qwen3-235B, DeepSeek-V3, and the top-tier Russian model GigaChat-2-Max. Hence, POLLUX can be employed as a robust, lightweight, and state-of-the-art alternative for automatic criteria evaluation on the POLLUX dataset.

On REPA (Table 4), we confirm that Pointwise mode — linear-time for Side-By-Side comparisons and inherently free from answer position bias — achieves higher metrics than Pairwise. Consequently, the POLLUX LLM-as-a-Judge, trained in Pointwise mode, can be efficiently integrated into SBS evaluation pipelines.

Model	AI Char	Creative Gen	Human Inter	Original Text Gen	QA	Tech Prob	Text Transf	Text-Based Gen	Score
Gemma-3-27B-It	<b>1.072</b>	<b>1.246</b>	<b>1.161</b>	<u>1.100</u>	<u>1.225</u>	<u>1.435</u>	<u>1.106</u>	<b>1.295</b>	<b>1.205</b>
Gemma-3-12B-It	<u>1.053</u>	<u>1.208</u>	<u>1.138</u>	<b>1.120</b>	1.140	1.352	1.089	<u>1.265</u>	1.163
Qwen3-30B-A3B	0.950	1.133	1.003	1.026	1.190	<b>1.539</b>	1.059	1.257	1.153
T-Pro-It-1.0	1.018	1.109	1.038	1.047	1.091	1.424	1.023	1.193	1.115
GPT-4	0.957	1.063	1.004	1.021	<b>1.207</b>	1.419	1.023	1.134	1.110
RuadaptQwen3-32B-Instruct	0.865	1.087	0.966	0.932	1.114	1.472	0.983	1.236	1.091
GigaChat-Max	0.981	1.077	1.011	1.027	1.121	1.285	1.000	1.141	1.085
Falcon-H1-34B-Instruct	0.980	1.068	0.986	0.976	1.108	1.412	0.999	1.142	1.083
Qwen3-14B	0.822	1.002	0.890	0.892	1.124	1.528	1.010	1.219	1.076
Gemma-3-4B-It	0.964	1.167	1.080	0.995	0.990	1.118	1.010	1.229	1.069

Table 5: The Top-10 leaderboard based on the POLLUX Benchmark evaluated by the 32B POLLUX Judge model. Results are reported as mean LLM-as-a-Judge scores aggregated within task groups; **Score** denotes the overall mean of judge scores across all tasks. The full leaderbord is provided in Table 10 of the Appendix. Best results are in **bold**, second best are underlined.

POLLUX introduces a benchmark characterized by its comprehensive taxonomies of tasks and evaluation criteria, as well as a suite of high-quality, human-written instructions. The benchmark is suitable for implementation under a rigorous, Arena Hard-like Li et al. (2024b) evaluation paradigm, utilizing a language model in the role of an evaluator. In Table 5, we report the performance metrics of several state-of-the-art models on the POLLUX benchmark, with all generated outputs adjudicated by our custom 32B POLLUX Judge. On average, evaluating a single model across all tasks and criteria with the POLLUX-32B LLM-as-a-Judge requires 1 GPU-hour on NVIDIA H100.

To analyze self-judging bias in LLM-as-a-Judge, we run a self-judgment study: for each model that produced answers for the test set, we also use that same model as the judge on its own outputs. We compute the average score the judge assigns and aggregate correlations at the model level in Table 6. Under mean-score aggregation, the POLLUX models’ final ranking aligns with expert judgments; by contrast, GPT-4o and T-pro exhibit self-preference, selecting themselves as the top performers.

Model	Experts	POLLUX LLM-as-a-Judge Family		Baseline LLM-as-a-Judge		
		POLLUX 7B	POLLUX 32B	Llama-3.1-405B	GPT-4o	T-pro-it-1.0
Claude 3.5 Sonnet (2024-10-22)	1.316	1.057	1.081	1.580	1.466	1.518
GPT-4o (2024-08-06)	1.350	1.110	1.123	<b>1.606</b>	<b>1.493</b>	1.557
GigaChat-Max (1.0.26.20)	1.327	1.085	1.084	1.566	1.427	1.514
Llama-3.1-405B	1.207	0.937	0.938	1.572	1.439	1.517
T-pro-it-1.0	1.223	1.076	1.089	1.603	1.492	<b>1.575</b>
YaGPT-4-Pro (2024-10-23)	1.242	0.960	0.947	1.465	1.321	1.399
ol (2024-12-17)	<b>1.404</b>	<b>1.129</b>	<b>1.147</b>	1.564	1.478	1.542
<b>Avg.</b>	1.281	1.051	1.059	1.565	1.446	1.517

Table 6: Model-averaged ratings on the **Zero-Shot Test** and **Human Dev** produced by judges who participated in answer generation, compared against the POLLUX Judges. The highest score under each judge is shown in **bold**.

We also conducted an analysis of the judges’ results for both the 7B and 32B models on a subset of 120 examples. This subset was chosen to provide a uniformly distributed sample across each criterion and task for manual review. In our analysis, we found that the judges made incorrect scores or provided arbitrary justifications in 27 out of the 120 cases (22.5%) for the 7B model and in 25 out of the 120 cases (20.8%) for the 32B model. The analysis also revealed further patterns in the judge’s evaluations:

- Instances where the judge’s explanation was excessively verbose and contained substantial irrelevant or redundant information. This was observed in 13 cases for the 7B model and 7 cases for the 32B model.
- Instances where the judge’s assessment was more severe than that of a human. This pattern was identified in 9 cases for the 7B model and 12 cases for the 32B model.
- The most frequent error involved the judge incorrectly assuming the existence of a reference answer for tasks that lacked one, and subsequently citing fictitious excerpts from it. This hallucination was observed in nearly 30 cases across the model evaluations.
- Subjective criteria (e.g., Expressiveness, Dialogue Coherence / Dramatic Effect): The discrepancies in ratings predominantly pertain to the conveyance of ‘emotional nuance’. Human evaluators frequently criticized the model-generated responses for a perceived ‘lack of soul’ or emotional depth.

## 6 CONCLUSION

Evaluating generative models remains a challenging task. To address this, we introduce POLLUX, an open-source framework for assessing Russian LLMs. It comprises a benchmark with 35 task groups and 2,115 expert-authored prompts labeled by difficulty, as well as LLM-as-a-Judge evaluators (7B and 32B) that closely approximate human judgment. POLLUX advances evaluation by combining criteria-driven scoring with automated assessment, reducing dependence on manual annotation. The framework, benchmark data, and evaluators are released publicly, providing a transparent basis for the systematic comparison of generative models.

## LIMITATIONS

**Data diversity and comprehensiveness** The generative tasks addressed in POLLUX represent the most common scenarios encountered in real user cases when using assistants. We acknowledge that the proposed number of tasks and domains may not be complete and that the criteria for specific domains may vary. Considering these aspects, we designed POLLUX with a modular structure that can be expanded in-depth, allowing for the incorporation of domain-specific features into the benchmark.

**Task classifier** The existing family of LLM-as-a-Judges uses not only the generated output and task instruction but also the explicit evaluation criteria as an input. This design assumes that users are familiar with the specific criteria by which they intend to evaluate model performance. However, in practical applications, especially in automated scoring scenarios involving diverse texts, requiring manual specification of the evaluation criteria may restrict usability. A more user-friendly approach would involve the automatic identification and application of task-relevant criteria. The creation of the criteria classifier remains an open research question and is deferred to future work.

**LLMs biases** LLMs can reflect and reinforce the biases present in their training data. This is particularly problematic when it comes to assessment issues, as they can unintentionally include stereotypes in the model’s error descriptions or introduce biases that affect LLM-as-a-Judge performance, such as position bias and length bias. To address these concerns, we ensure that our training synthetic data is diverse and representative, in line with the comprehensive methodology of the POLLUX benchmark. However, further research is needed to determine whether the family of LLMs-as-judges involved is free from biases and whether the syntactic data used for their training does not negatively influence them.

## ETHICS STATEMENT

**Data sourcing and participants** The benchmark data was either generated from scratch or obtained from open-source datasets, ensuring compliance with the data usage rights. All annotators and contributors provided explicit consent for their participation, and fair compensation was provided for their work.

**Representation and diversity** To mitigate bias, the annotation process involved experts of varying genders, ages, and geographic regions across Russia. Additionally, cultural nuances specific to the Russian context were incorporated to enhance the benchmark’s relevance and fairness.

**Safety and ethical safeguards** The benchmark explicitly tracks the proportion of safety- and ethics-related examples within each methodological category, ensuring that potential harm is monitored and addressed for each type of task.

**Use of AI assistants** We use Grammarly<sup>12</sup> to correct errors in grammar, spelling, phrasing, and style in our paper. Consequently, specific text sections may be identified as machine-generated, machine-edited, or human-generated and machine-edited.

**Energy Efficiency and Usage** We compute the  $CO_2$  emissions from training our LLMs as Equation 1 Strubell et al. (2019):

$$CO_2 = \frac{PUE * kWh * I^{CO_2}}{1000} \quad (1)$$

For the POLLUX models, the total  $CO_2$  emissions are 752 kg for the 32B model and 125 kg for the 7B model. To put this into perspective, 752 kg of  $CO_2$  is roughly equivalent to the emissions from a single-passenger car driving from Moscow to Madrid, based on an average emission rate of 0.2 kg of  $CO_2$  per kilometer.

<sup>12</sup><https://app.grammarly.com/>

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## 765 A APPENDIX

### 766 A.1 CRITERIA ASSIGNMENT

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771 The full statistics of all the criteria grouped by the panel assignments are presented in Table 7.

772 Tables 8 and A.1 represent the statistics of the generated scores and rationales for criteria annotation.  
773 As we can see, the distributions of criterion-based scores for most criteria are largely comparable  
774 between expert-written and synthetic datasets, despite the underlying evaluated instruction–answer  
775 pairs being entirely distinct and non-overlapping. This is particularly evident in the mean, stan-  
776 dard deviation, and mode of scores, which, across a wide range of criteria types, demonstrate close  
777 alignment – suggesting that criterion-level assessment remains consistent across both data sources.

778 Tables 8 and A.1 suggest that synthetically generated texts (both instructions and rationales) are  
779 lengthier, being at the same time less original than those written by the experts. Tables also show  
780 that DeepSeek-R1 tends to assign a mediocre score of 1 rather than choosing extreme values.

781 Despite these statistical and stylistic differences in commentary, the synthetic dataset remains a vi-  
782 able resource for training the LLM-as-a-Judge Family, especially considering the overall similarity  
783 in criterion-based scores. Thus, while the expert-written feedback exhibits optimized brevity and  
784 contextual appropriateness, the synthetic commentary maintains an adequate level of informativ-  
785 eness and coherence.  
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### 789 A.2 RESULTS ON THE FULL TEST

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792 POLLUX introduces a benchmark with detailed task classifications, assessment criteria, and human-  
793 crafted instructions. The benchmark is designed for rigorous Arena Hard-style Li et al. (2024a)  
794 evaluation, where an LLM acts as the judge. Table 10 provides the full report of the performance  
795 metrics of state-of-the-art models on the POLLUX benchmark Full Test, all assessed by our 32B  
796 POLLUX Judge.  
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### 799 A.3 STYLISTIC DEVICES

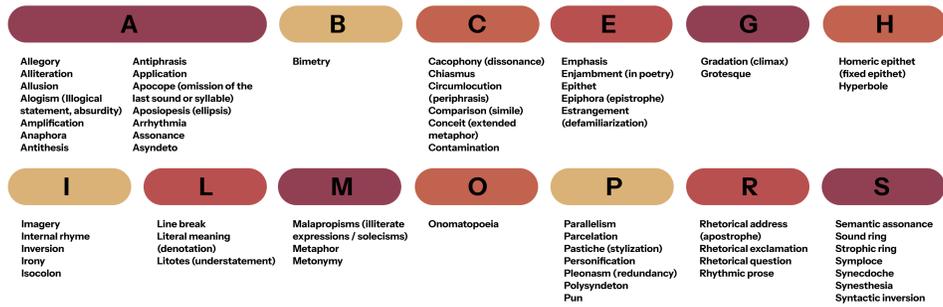
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802 Figure 3 represents the stylistic devices and lexical richness aspects covered in the POLLUX bench-  
803 mark.  
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### 807 A.4 PROMPTS

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The prompt employed for the training and the usage of the POLLUX Family of Judges.

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### Stylistic Devices



### Lexical Richness



### Movements

- Autofiction
- Baroque
- Bible
- Classicism
- Epistolary style
- Futurism
- Magic realism
- Minimalism
- Old Russian literature
- Postmodernism
- Realism
- Romanticism
- Sentimentalism
- Socialist Realism
- Stream of consciousness

15

### Writers

- Andrei Bely
- Andrei Platonov
- Boris Pasternak
- Viktor Pelevin
- Vladimir Mayakovsky
- Vladimir Nabokov
- Gavriila Derzhavin
- Darili Kharms
- Ivan Turgenyev
- Joseph Brodsky
- Leo Tolstoy
- Mikhail Bulgakov
- Mikhail Zoshchenko
- Nikolai Gogol
- Nikolai Leskov
- Sergei Dovlatov
- Fyodor Dostoevsky

17

### Elements

- Arguments
- Conclusions
- Data (numerical)
- Examples
- Facts
- Figures of speech
- Instruments of crime
- Methods of research
- Proper names
- Sequence of actions
- Theses
- Tropes
- Terms

13

### Situations

- Compliment
- Conflict
- Consultation/Training
- Courtesy situation
- Cross-examination/Questioning
- Dispute/Argument
- Flirtation
- Interview with an expert
- Joking
- Meeting/Briefing
- Negotiation
- Persuasion
- Service
- Small talk
- Story/Narrative

15

### Substyles & Genres of Texts

- Act
- Administrative text
- Advertising texts and PR
- Anecdote
- Ballad
- Analytical article
- Analytical commentary
- Business text (business correspondence)
- Catalog
- Chastushka
- Comedy
- Comics
- Complex of tasks/ assignments, greetings, congratulatory speeches
- Dialogue
- Diplomatic text
- Dissertation
- Documentary film script
- Drawings and diagrams
- Editor's letter
- Encyclopedia
- Epigram
- Epitaph
- Essay
- Fable
- Feature article
- Feuilleton
- GOST (State Standard - Russia)
- Hokku
- Information note
- Information overview
- Informational text
- Interview with an expert
- Interview with event participants
- Journalistic investigation
- Judicial text
- Landscape poem
- Lecture
- Legend
- Libretto
- Manual
- Miniature / Short story
- Monodrama
- Monograph
- News article
- News note
- Novel
- Novella
- Ode
- Oratorical texts
- Pamphlet
- Patent description
- Philosophical poem
- Play (in one act)
- Play (in two acts)
- Poem
- Political speeches
- Political statements
- Popular science article
- Popular science brochure
- Popular science book
- Popular science film
- Popular science lecture
- Popular science program/ broadcast
- Presentation
- Press release
- Proverb
- Report
- Research paper
- Review
- Rhymed congratulations/ greetings
- Romance / Chapter of a romance
- Rules of procedure
- Satirical poetry
- Scene
- Scenario
- Scientific article
- Scientific educational text
- Scientific informative text
- Scientific reference text
- Scientific news
- Sketch
- Sonnet
- Speech
- Speeches in support of candidates
- Stage dialogue
- Story / Chapter of a story
- Technical regulation
- Tragedy
- Tragicomedy
- Textbook
- Dictionary

95

### And more

- Riddles
- Logic puzzles
- Video games
- Plans of action
- Schedules/Timetables
- Content plans

Figure 3: Names and numbers of language aspects studied in the POLLUX benchmark

Below is the translation from Russian of the prompt for model training:

```

### The task for the evaluation:
{instruction}

### Gold answer:
{reference_answer}

### Generated answer:
{answer}

### Criteria:
{criteria.name}

### Rating scale for the criterion:
{criteria.rubrics}

```

864 The prompt for instruction generation:

```

865 ### **Instruction:**
866 Your task is to generate a new novel problem based on the given ↵
867 ↵ details about its type, description, requirements, and complexity.
868
869 ##### **Problem Details:**
870 - **General Problem Type:** {problem_type}
871 - **Specific Problem Type:** {problem_subtype}
872 - **More Specific Subtype:** {problem_subtype2}
873 - **Domain:** {domain}
874 - **Description:** {problem_description}
875 - **Requirements:** {problem_requirements}
876 - **Complexity:** {problem_complexity}
877
878 ---
879 ### **Problem Generation Rules:**
880
881 1. **Relevance:**
882 - The problem must be directly related to the given description and ↵
883 ↵ domain.
884 - It should align with the specified problem type and complexity ↵
885 ↵ level.
886
887 2. **Complexity & Challenge:**
888 - The problem should not be too generic or easy to solve.
889 - The complexity should match '{problem_complexity}'.
890
891 3. **Implicit Requirements:**
892 - The problem should naturally contain the requirements but should ↵
893 ↵ **not** list them explicitly.
894
895 4. **Text-Based Problems:**
896 - If the problem involves working with text, the text content ↵
897 ↵ should be provided **after** the problem statement.
898
899 5. **Perspective & Style:**
900 - Assume a situation where a user is asking a question.
901 - The user should ask in **first-person perspective** but **should ↵
902 ↵ not** use phrases like "I", "A user", or "You" in the first sentence.
903 - Do **not** assign a role to any entity in the problem.
904 - Avoid mentioning AI models in any way.
905
906 ---
907 ### **Format:**
908
909 - **Prefix the problem with:** [PROBLEM]
910 - **Write the problem in Russian** (matching the given description).
911 - **End the problem with:** [END]
912 - **No greetings or extra messages.**

```

## 908 A.5 EXPERT EVALUATION

909  
910 The Human Baseline was estimated on a sample of 140 instruction–answer pairs, yielding 7,537  
911 distinct criterion-level annotations (LLM-as-a-Judge was not evaluated on Human Baseline). The  
912 answers to the instructions were written by panel experts and scored by non-overlapping expert  
913 groups. Expert Human Evaluation presents a comprehensive analysis of the LLM performance from  
914 the perspective of human expert evaluators, as provided in Table 11.

915  
916  
917

Criterion	Overlap	Conf.	Test
<b>Panel 0: Crowd</b>			
Format violation	5	1.00	<u>Both</u>
Censor block	5	1.00	<u>Both</u>
No repetitions	3	0.98	<u>Both</u>
No generation errors	3	0.98	<u>Both</u>
Initiative	3	0.97	<u>Both</u>
Apprehensibility	3	0.94	<u>Both</u>
Naturalness/non-synthetic speech	3	0.86	<u>Both</u>
Beautiful formatting	3	0.78	<u>Both</u>
General impression	5 <sup>‡</sup>	0.71	<u>Both</u>
Usefulness	5 <sup>‡</sup>	0.73	<u>Both</u>
<b>Panel 1: Editing and General Language Tasks</b>			
User request formalization	2 <sup>†</sup>	0.89	<u>Both</u>
Literacy	2 <sup>†</sup>	0.83	<u>Both</u>
Absence of speech errors	2 <sup>†</sup>	0.82	<u>Both</u>
<b>Panel 2: Science — 3: Literature — 4: Journalism — 5: Law, Diplomacy and Business — 7: AI as a Character</b>			
No fluff	2	0.88	<u>Both</u>
Genre adherence	2	0.84	<u>Both</u>
Sources citing	2	0.88	<u>Both</u>
Cohesion and coherence	2	0.85	<u>Both</u>
Real-world facts consistency	2	0.93	<u>Both</u>
Terminology correctness	2	0.85	<u>Both</u>
Creativity	2	0.76	<u>Both</u>
Depth of elaboration	2	0.77	<u>Both</u>
Ling. competence	2	0.80	<u>Both</u>
Monologue nature	2	0.95	<u>Both</u>
Safety	2	0.96	<u>Both</u>
Unambiguous language	2	0.84	<u>Both</u>
Character adherence	2	0.78	<u>Both</u>
Applicability	2	0.85	<b>ZS</b>
Assessment accuracy	2	1.00	<b>ZS</b>
Compliance with functional style	2	0.94	<b>ZS</b>
Correctness of results	2	0.91	<b>ZS</b>
Ingenuity	2	0.87	<b>ZS</b>
Level of expertise	2	0.80	<b>ZS</b>
Objectivity	2	0.93	<b>ZS</b>
Preserving original idea/details	2	0.85	<b>ZS</b>
Reasoning quality	2	0.88	<b>ZS</b>
Subjectivity	2	0.83	<b>ZS</b>
Summarizing quality	2	0.85	<b>ZS</b>
<b>Panel 3: Literature (Task-Specific)</b>			
Literary accents	2	0.79	<b>ZS</b>
Dramaturgy	2	0.78	<b>ZS</b>
Dialog expressiveness	2	0.75	<b>ZS</b>
Verse Meter/rhythmic structure	2	0.90	<b>ZS</b>
Rhyme quality	2	0.90	<b>ZS</b>
<b>Panel 6: Translation Studies</b>			
Language norms	2	0.77	<b>ZS</b>
Author viewpoint	2	0.84	<b>ZS</b>
Original goal	2	0.84	<b>ZS</b>
Original tone	2	0.83	<b>ZS</b>
Factual accuracy	2	0.82	<b>ZS</b>
<b>Panel 8: STEM — 9: Programming Code — 10: QA</b>			
Situation applicability	2	0.89	<b>ZS</b>
Completeness	2	0.97	<b>ZS</b>
Correctness of the solution	2	0.87	<b>ZS</b>
Correctness of units of measurement	2	1.00	<b>ZS</b>
Code cleanliness	2	1.00	<b>ZS</b>
Formatting according to structure	2	0.89	<b>ZS</b>
LaTeX script correctness	2	1.00	<b>ZS</b>
Operability	2	0.84	<b>ZS</b>
Optimal solution	2	1.00	<b>ZS</b>
Scientific credibility	2	0.90	<b>ZS</b>
Sufficiency of the solution	2	1.00	<b>ZS</b>
<b>Average</b>	—	<b>0.88</b>	—

Table 7: Expert panels assignment, overlap value and average confidence for all criteria. <sup>†</sup>General criteria annotated by Expert panels due to required specialized expertise. <sup>‡</sup>Subjective criteria requiring additional annotations to stabilize the aggregate estimate. Panel assignment for domain-specific criteria (Panels 2–5,7) is resolved by the functional style of the original instruction. **Bold** font indicates criteria exclusive to the **Zero-Shot Test**; underlined criteria are present in Both tests.

Data Type	Criteria Type	Text Statistics					Scores Statistics		
		Chars	Words	Sent	MATTR @15	MATTR @30	Ling. Acc.	Mean $\pm$ Std	Mode
Expert-written	Critical	35	5	1.09	99.20	99.16	0.90	0.01 $\pm$ 0.09	0
	Fine-grained	74	10	1.32	97.42	96.38	0.89	1.30 $\pm$ 0.46	1
	Domain-specific	104	14	1.49	97.88	96.80	0.88	1.44 $\pm$ 0.58	2
	Task-specific	86	11	1.36	98.46	97.72	0.89	1.32 $\pm$ 0.63	1
	Subjective	70	9	1.21	98.72	98.33	0.90	1.48 $\pm$ 0.65	2
Synthetic	Critical	502	64	4.43	97.07	92.50	0.82	0.15 $\pm$ 0.36	0
	Fine-grained	632	78	6.16	96.80	91.83	0.86	0.84 $\pm$ 0.70	1
	Domain-specific	921	112	8.09	97.20	92.84	0.87	1.04 $\pm$ 0.58	1
	Task-specific	880	109	8.21	96.61	91.50	0.86	1.00 $\pm$ 0.58	1
	Subjective	837	104	7.23	97.45	93.27	0.86	0.96 $\pm$ 0.57	1

Table 8: Statistics of expert-written and synthetic criterion-based scores and comments, aggregated by Criteria Type.

Criteria Type	Criteria	Text Statistics					Scores Statistics		
		Characters	Words	Sentences	MATTR@15	MATTR@30	Ling. Accept.	Mean $\pm$ Std	Mode
Critical	Format violation	38 / 466	5 / 59	1.08 / 4.39	99.57 / 97.32	99.49 / 93.10	0.85 / 0.78	0.00 $\pm$ 0.03 / 0.14 $\pm$ 0.35	0 / 0
	Censor block	32 / 539	5 / 69	1.10 / 4.47	98.83 / 96.83	98.82 / 91.90	0.96 / 0.86	0.02 $\pm$ 0.14 / 0.15 $\pm$ 0.37	0 / 0
Fine-grained	No repetitions	31 / 484	4 / 61	1.02 / 4.85	99.86 / 96.75	99.85 / 92.09	0.98 / 0.90	1.99 $\pm$ 0.11 / 1.38 $\pm$ 0.76	2 / 2
	No generation errors	29 / 513	4 / 66	1.01 / 4.75	99.90 / 97.34	99.88 / 92.67	0.95 / 0.86	1.95 $\pm$ 0.23 / 1.05 $\pm$ 0.70	2 / 1
	Absence of speech errors	71 / 665	10 / 81	1.42 / 7.73	95.45 / 95.80	93.83 / 90.31	0.86 / 0.86	1.52 $\pm$ 0.69 / 0.74 $\pm$ 0.91	2 / 0
	User request formalization	76 / 839	10 / 103	1.25 / 7.36	98.47 / 96.85	97.81 / 91.81	0.89 / 0.84	1.68 $\pm$ 0.60 / 1.10 $\pm$ 0.57	2 / 1
	Initiative	67 / 600	9 / 74	1.10 / 4.32	98.74 / 98.22	98.14 / 93.78	0.94 / 0.89	0.09 $\pm$ 0.36 / 0.17 $\pm$ 0.39	0 / 0
	Literacy	168 / 693	23 / 83	2.12 / 7.92	92.07 / 95.84	88.79 / 90.30	0.73 / 0.84	0.57 $\pm$ 0.75 / 0.61 $\pm$ 0.88	0 / 0
	No fluff	64 / 711	9 / 91	1.21 / 5.83	98.43 / 97.15	97.96 / 92.30	0.92 / 0.88	1.73 $\pm$ 0.50 / 0.51 $\pm$ 0.64	2 / 0
Domain-specific	Character adherence	140 / 944	20 / 118	2.00 / 7.71	97.20 / 97.47	95.38 / 93.04	0.79 / 0.88	0.80 $\pm$ 0.71 / 0.73 $\pm$ 0.49	1 / 1
	Genre adherence	83 / 1006	12 / 122	1.43 / 9.51	97.77 / 97.20	97.07 / 92.83	0.88 / 0.86	1.48 $\pm$ 0.70 / 1.13 $\pm$ 0.55	2 / 1
	Sources citing	135 / 751	19 / 96	1.56 / 5.85	96.28 / 97.59	94.22 / 93.07	0.78 / 0.86	0.32 $\pm$ 0.61 / 0.13 $\pm$ 0.37	0 / 0
	Cohesion and coherence	114 / 972	15 / 119	1.63 / 9.23	97.67 / 97.02	96.37 / 92.72	0.90 / 0.87	1.67 $\pm$ 0.56 / 1.50 $\pm$ 0.66	2 / 2
	Real-world facts consistency	88 / 922	12 / 113	1.42 / 8.27	98.34 / 96.95	97.44 / 92.16	0.92 / 0.85	1.66 $\pm$ 0.63 / 1.27 $\pm$ 0.69	2 / 1
	Terminology correctness	116 / 1094	14 / 125	1.40 / 9.77	96.85 / 96.40	95.55 / 91.55	0.90 / 0.86	1.72 $\pm$ 0.51 / 1.15 $\pm$ 0.65	2 / 1
	Creativity	83 / 886	11 / 109	1.31 / 7.63	98.24 / 97.49	97.68 / 93.64	0.89 / 0.89	1.15 $\pm$ 0.75 / 0.90 $\pm$ 0.55	1 / 1
	Depth of elaboration	163 / 1074	22 / 132	1.96 / 9.63	97.27 / 97.38	95.62 / 93.16	0.85 / 0.86	1.29 $\pm$ 0.72 / 0.97 $\pm$ 0.41	2 / 1
	Ling. competence	120 / 1002	16 / 116	1.68 / 8.60	97.96 / 97.34	96.95 / 93.64	0.83 / 0.87	1.36 $\pm$ 0.71 / 1.31 $\pm$ 0.66	2 / 1
	Monologue nature	89 / 664	11 / 79	1.26 / 5.60	99.19 / 97.83	98.78 / 93.94	0.89 / 0.89	1.91 $\pm$ 0.35 / 1.33 $\pm$ 0.68	2 / 2
	Safety	39 / 732	5 / 92	1.05 / 6.02	99.68 / 97.00	99.56 / 92.60	0.95 / 0.88	1.93 $\pm$ 0.29 / 1.66 $\pm$ 0.61	2 / 2
	Unambiguous language	124 / 1216	16 / 141	1.47 / 11.51	97.52 / 96.80	95.88 / 92.27	0.93 / 0.87	1.72 $\pm$ 0.49 / 0.99 $\pm$ 0.62	2 / 1
	Literary accents	185 / 974	25 / 121	2.01 / 7.99	96.41 / 97.58	94.38 / 93.64	0.81 / 0.87	0.80 $\pm$ 0.76 / 0.98 $\pm$ 0.42	0 / 1
	Applicability	76 / 1156	10 / 137	1.23 / 11.30	98.62 / 97.21	98.11 / 92.85	0.86 / 0.82	1.60 $\pm$ 0.62 / 1.39 $\pm$ 0.60	2 / 1
	Situation applicability	100 / 1045	13 / 125	1.12 / 8.28	98.41 / 97.81	97.91 / 93.62	0.79 / 0.88	0.91 $\pm$ 0.69 / 1.16 $\pm$ 0.55	1 / 1
	Assessment accuracy	130 / 1201	17 / 145	1.74 / 12.10	97.30 / 97.33	95.61 / 92.67	0.85 / 0.83	1.16 $\pm$ 0.74 / 0.96 $\pm$ 0.42	1 / 1
	Code cleanliness	123 / 1024	16 / 126	1.72 / 11.05	99.12 / 95.52	98.37 / 90.02	0.95 / 0.88	1.55 $\pm$ 0.55 / 1.21 $\pm$ 0.61	2 / 1
Completeness	78 / 975	10 / 118	1.04 / 8.81	99.35 / 97.27	99.28 / 93.25	0.73 / 0.87	1.93 $\pm$ 0.30 / 1.13 $\pm$ 0.54	2 / 1	
Language norms	111 / 992	15 / 114	1.46 / 10.88	97.58 / 96.06	96.21 / 90.74	0.92 / 0.82	1.52 $\pm$ 0.60 / 0.77 $\pm$ 0.68	2 / 1	
Author viewpoint	68 / 850	9 / 107	1.06 / 8.22	98.89 / 96.85	98.56 / 92.46	0.90 / 0.84	1.45 $\pm$ 0.75 / 1.00 $\pm$ 0.48	2 / 1	
Compliance with functional style	41 / 806	5 / 95	1.04 / 6.88	98.88 / 96.85	98.71 / 92.04	0.93 / 0.87	1.86 $\pm$ 0.40 / 1.10 $\pm$ 0.69	2 / 1	
Original goal	102 / 873	14 / 108	1.43 / 8.14	97.96 / 96.80	97.14 / 92.25	0.90 / 0.84	1.30 $\pm$ 0.83 / 1.31 $\pm$ 0.65	2 / 1	
Original tone	94 / 793	13 / 101	1.39 / 7.61	98.68 / 96.89	98.25 / 92.18	0.93 / 0.84	1.51 $\pm$ 0.70 / 0.98 $\pm$ 0.39	2 / 1	
Correctness of results	96 / 859	13 / 107	1.56 / 8.38	98.17 / 95.74	96.95 / 89.48	0.91 / 0.87	1.15 $\pm$ 0.91 / 1.08 $\pm$ 0.61	2 / 1	
Correctness of the solution	91 / 1058	11 / 130	1.31 / 10.39	97.68 / 95.89	96.75 / 90.13	0.85 / 0.87	1.54 $\pm$ 0.96 / 0.94 $\pm$ 0.65	2 / 1	
Correctness of units of measurement	36 / 540	4 / 69	1.06 / 4.49	99.47 / 94.65	99.47 / 87.28	0.90 / 0.84	0.84 $\pm$ 0.37 / 0.37 $\pm$ 0.48	1 / 0	
Dramaturgy	64 / 788	9 / 100	1.29 / 7.00	97.72 / 96.85	97.26 / 91.95	0.94 / 0.89	1.24 $\pm$ 0.69 / 1.12 $\pm$ 0.71	1 / 1	
Dialog expressiveness	83 / 950	11 / 122	1.62 / 8.75	98.44 / 96.63	97.86 / 91.93	0.91 / 0.88	1.11 $\pm$ 0.67 / 0.80 $\pm$ 0.67	1 / 1	
Factuality accuracy	123 / 854	17 / 107	1.42 / 8.14	97.40 / 96.62	95.93 / 91.93	0.92 / 0.86	1.04 $\pm$ 0.85 / 0.87 $\pm$ 0.52	2 / 1	
Formatting according to structure	75 / 787	10 / 97	1.26 / 7.13	98.71 / 97.20	98.35 / 92.54	0.95 / 0.89	1.88 $\pm$ 0.35 / 1.53 $\pm$ 0.61	2 / 2	
Ingenuity	62 / 813	9 / 107	1.13 / 7.57	99.17 / 96.12	99.08 / 89.56	0.92 / 0.84	1.16 $\pm$ 0.73 / 1.08 $\pm$ 0.52	1 / 1	
LaTeX script correctness	30 / 621	4 / 76	1.05 / 6.23	99.70 / 94.87	99.40 / 88.07	0.96 / 0.88	1.79 $\pm$ 0.44 / 0.70 $\pm$ 0.83	2 / 0	
Level of expertise	212 / 810	29 / 100	2.41 / 8.08	96.49 / 96.49	93.44 / 91.52	0.86 / 0.85	1.03 $\pm$ 0.75 / 1.28 $\pm$ 0.72	1 / 2	
Verse Meter/rhythmic structure	40 / 606	6 / 78	1.13 / 4.95	98.80 / 97.17	98.58 / 92.83	0.95 / 0.87	0.44 $\pm$ 0.65 / 0.95 $\pm$ 0.74	0 / 1	
Objectivity	48 / 986	6 / 117	1.10 / 9.04	99.39 / 97.39	99.14 / 93.27	0.95 / 0.89	1.90 $\pm$ 0.34 / 1.49 $\pm$ 0.60	2 / 2	
Operability	37 / 846	5 / 104	1.11 / 8.22	99.61 / 96.12	99.37 / 89.98	0.97 / 0.88	0.89 $\pm$ 0.32 / 0.57 $\pm$ 0.50	1 / 1	
Optimal solution	94 / 1173	13 / 142	1.54 / 10.92	98.70 / 96.36	97.71 / 90.91	0.88 / 0.88	1.66 $\pm$ 0.66 / 0.90 $\pm$ 0.63	2 / 1	
Preserving original idea/details	82 / 913	12 / 115	1.27 / 7.93	98.42 / 97.33	97.39 / 92.90	0.86 / 0.83	1.70 $\pm$ 0.51 / 1.20 $\pm$ 0.58	2 / 1	
Reasoning quality	158 / 803	22 / 105	2.44 / 8.13	97.24 / 95.75	95.13 / 89.24	0.90 / 0.85	0.94 $\pm$ 0.79 / 0.78 $\pm$ 0.58	1 / 1	
Rhyme quality	36 / 432	5 / 58	1.12 / 3.94	98.95 / 95.65	98.78 / 88.74	0.94 / 0.86	0.58 $\pm$ 0.72 / 0.21 $\pm$ 0.45	0 / 0	
Scientific credibility	71 / 969	9 / 121	1.07 / 9.10	98.86 / 96.65	98.53 / 91.38	0.88 / 0.84	1.78 $\pm$ 0.49 / 1.03 $\pm$ 0.56	2 / 1	
Subjectivity	66 / 874	8 / 104	1.11 / 7.50	99.18 / 97.55	98.84 / 93.61	0.90 / 0.85	0.41 $\pm$ 0.62 / 0.81 $\pm$ 0.53	0 / 1	
Sufficiency of the solution	72 / 1051	9 / 130	1.15 / 9.82	98.41 / 96.56	97.85 / 91.28	0.70 / 0.87	1.85 $\pm$ 0.82 / 1.09 $\pm$ 0.61	2 / 1	
Summarizing quality	61 / 736	8 / 90	1.15 / 5.88	99.10 / 97.64	98.76 / 93.81	0.86 / 0.81	1.77 $\pm$ 0.47 / 1.15 $\pm$ 0.57	2 / 1	
Subjective	Apprehensibility	52 / 912	7 / 114	1.09 / 8.99	99.18 / 97.30	99.08 / 92.92	0.91 / 0.90	1.89 $\pm$ 0.33 / 1.44 $\pm$ 0.78	2 / 2
	Beautiful formatting	65 / 592	8 / 72	1.10 / 4.10	99.14 / 98.27	99.04 / 94.73	0.85 / 0.83	1.03 $\pm$ 0.89 / 0.45 $\pm$ 0.58	2 / 0
	General impression	86 / 972	12 / 119	1.39 / 9.21	98.00 / 96.97	97.24 / 92.24	0.95 / 0.85	1.32 $\pm$ 0.76 / 0.96 $\pm$ 0.48	2 / 1
	Naturalness/non-synthetic speech	59 / 865	8 / 108	1.12 / 6.76	99.02 / 97.48	98.80 / 93.71	0.91 / 0.88	1.75 $\pm$ 0.52 / 0.87 $\pm$ 0.49	2 / 1
	Usefulness	87 / 845	12 / 105	1.34 / 7.11	98.28 / 97.24	97.51 / 92.74	0.88 / 0.85	1.39 $\pm$ 0.73 / 1.09 $\pm$ 0.50	2 / 1

Table 9: Statistics of expert-written and synthetic criterion-based scores and comments, aggregated by Criteria. The first number refers to the expert-written instructions, and the second number refers to the synthetic dataset. For example, 38 / 466 means 38 is for the expert-written texts and 466 is for the synthetic data.

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Model	AI Char	Creative Gen	Human Inter	Original Text Gen	QA	Tech Prob	Text Transf	Text-Based Gen	Score
Gemma-3-27B-It	<b>1.072</b>	<b>1.246</b>	<b>1.161</b>	1.100	<u>1.225</u>	1.435	1.106	<b>1.295</b>	<b>1.205</b>
Gemma-3-12B-It	<u>1.053</u>	<u>1.208</u>	<u>1.138</u>	<b>1.120</b>	1.140	1.352	1.089	<u>1.265</u>	<u>1.163</u>
Qwen3-30B-A3B	0.950	1.133	1.003	1.026	1.190	<b>1.539</b>	1.059	1.257	1.153
T-Pro-It-1.0	1.018	1.109	1.038	1.047	1.091	1.424	1.023	1.193	1.115
GPT-4	0.957	1.063	1.004	1.021	<b>1.207</b>	1.419	1.023	1.134	1.110
RuadaptQwen3-32B-Instruct	0.865	1.087	0.966	0.932	1.114	1.472	0.983	1.236	1.091
GigaChat-Max	0.981	1.077	1.011	1.027	1.121	1.285	1.000	1.141	1.085
Falcon-H1-34B-Instruct	0.980	1.068	0.986	0.976	1.108	1.412	0.999	1.142	1.083
Qwen3-8B	0.782	1.010	0.893	0.889	1.081	1.503	<b>1.021</b>	1.223	1.067
Qwen3-32B	0.780	0.983	0.899	0.835	1.115	1.560	0.986	1.213	1.061
Gemma-3-4B-It	0.964	1.167	1.080	0.995	0.990	1.118	1.010	1.229	1.069
Qwen3-14B	0.822	1.002	0.890	0.892	1.124	1.528	1.010	1.219	1.076
T-Lite-It-1.0	0.949	1.040	0.964	0.972	1.063	1.262	0.984	1.129	1.048
Phi-4	0.922	1.008	0.932	0.939	1.024	1.394	0.966	1.151	1.043
Gemma-2-27B-It	0.897	0.988	0.936	0.844	1.040	1.266	0.982	1.064	1.006
Qwen3-4B	0.696	0.916	0.776	0.789	0.932	1.470	0.918	1.174	0.973
Vikhr-Nemo-12B-Instruct	0.939	0.945	0.903	0.879	0.978	1.013	0.959	1.046	0.964
YandexGPT-Pro	0.897	0.965	0.906	0.909	1.011	0.947	0.958	1.010	0.960
Qwen2.5-32B-Instruct	0.806	0.900	0.853	0.780	0.961	1.301	0.911	1.047	0.950
Saiga-Gemma3-12B	0.829	0.933	0.891	0.856	0.924	1.037	0.890	1.104	0.941
RuadaptQwen2.5-32B-Pro-Beta	0.750	0.914	0.821	0.785	0.931	1.268	0.814	1.075	0.924
Gemma-2-9B-It	0.780	0.922	0.845	0.776	0.896	1.117	0.901	1.046	0.918
Llama-3.3-70B-Instruct	0.775	0.875	0.831	0.754	0.954	1.280	0.864	1.033	0.926
Vikhr-Llama3.1-8B-Instruct	0.744	0.878	0.765	0.749	0.855	0.926	0.869	1.023	0.865
RuadaptQwen3-4B-Instruct	0.632	0.814	0.697	0.666	0.783	1.290	0.771	1.047	0.845
RuadaptQwen2.5-32B-Instruct	0.596	0.791	0.699	0.580	0.835	1.133	0.831	0.976	0.821
Qwen3-1.7B	0.553	0.710	0.624	0.629	0.717	1.185	0.768	1.020	0.791
Qwen2.5-VL-72B-Instruct	0.506	0.629	0.590	0.567	0.768	1.214	0.778	0.893	0.762
QVikhr-3-4B-Instruction	0.563	0.696	0.615	0.570	0.671	1.215	0.726	0.920	0.752
Qwen2.5-7B-Instruct	0.623	0.712	0.664	0.565	0.719	1.057	0.745	0.858	0.747
Gemma-3-1B-It	0.652	0.804	0.802	0.684	0.596	0.516	0.740	0.971	0.729
Gemma-2-2B-It	0.536	0.661	0.671	0.604	0.560	0.587	0.641	0.815	0.643
Meta-Llama-3.1-8B-Instruct	0.202	0.241	0.207	0.185	0.306	0.481	0.421	0.362	0.321
Qwen3-0.6B	0.259	0.306	0.320	0.228	0.348	0.514	0.399	0.497	0.370
Llama-3.2-3B-Instruct	0.160	0.189	0.205	0.138	0.240	0.240	0.211	0.169	0.196
Llama-3.2-1B-Instruct	0.143	0.151	0.153	0.120	0.227	0.060	0.152	0.140	0.151

Table 10: The leaderboard based on the POLLUX Benchmark evaluated by the 32B POLLUX Judge model. The leaderboard is provided on the Russian LLMARENA. Best results are in **bold**, second best are underlined. The “RuAdapt” models are from Tikhomirov & Chernyshev (2024), and the “Vikhr” models are from Nikolich et al. (2025).

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Task Macrogroup	Task Type	Human Baseline	Claude 3.5	GPT-4o	GigaChat -Max	Llama-3.1 -405B	T-pro -it-1.0	YaGPT -4-Pro	o1
AI as a Character	AI as a character (formal)	<b>1.580</b>	1.396	1.311	1.279	1.140	1.186	1.250	1.347
	AI as a character (informal)	<b>1.634</b>	1.450	1.267	1.242	1.333	1.217	1.299	1.351
Brainstorming	Applied brainstorming	1.604	<b>1.655</b>	1.610	1.634	1.468	1.511	1.530	1.641
	Creative brainstorming	1.604	<b>1.646</b>	1.585	1.575	1.500	1.531	1.529	1.587
	General-purpose brainstorming	1.484	1.615	1.634	1.597	1.575	1.600	1.596	<b>1.636</b>
	Word tasks	<b>1.744</b>	1.549	1.350	1.274	1.286	1.278	1.332	1.558
Human-Model Inter.	Advice	1.524	<b>1.707</b>	1.272	1.464	1.461	1.213	1.399	<b>1.707</b>
	Recommendations	1.391	<b>1.647</b>	1.440	1.384	1.281	1.093	1.357	<b>1.647</b>
	Plans	—	1.608	<b>1.753</b>	1.703	1.603	1.723	1.615	1.642
Original Text Gen.	Journalistic text	<b>1.542</b>	1.530	1.439	1.492	1.403	1.472	1.457	1.490
	Literary text	<b>1.550</b>	1.413	1.174	1.250	1.093	1.137	1.207	1.371
	Official text	1.445	1.458	1.366	<b>1.502</b>	1.384	1.392	1.404	1.474
	Scientific text	<b>1.571</b>	1.431	1.384	1.474	1.112	1.291	1.396	1.508
QA	Concept explanation	1.551	1.572	1.561	1.533	1.463	1.520	1.460	<b>1.595</b>
	Data analysis	—	—	<b>1.846</b>	1.746	—	—	1.400	—
	Data retrieval	—	—	<b>1.805</b>	1.771	—	—	1.675	—
	Describing objects game	—	—	<b>1.633</b>	1.361	—	—	1.195	—
	Fact checking	—	—	<b>1.765</b>	1.671	—	—	1.410	—
	Problem-solving	<b>1.701</b>	1.070	0.962	0.707	0.903	0.842	0.858	1.182
	Writing instructions	—	—	<b>1.851</b>	1.831	—	—	1.778	—
Technical Problems	Code analysis	—	—	<b>1.635</b>	1.527	—	—	1.228	—
	Code creation	—	—	<b>1.581</b>	1.446	—	—	1.071	—
	Code modification	—	—	<b>1.605</b>	1.522	—	—	1.281	—
	STEM exercises	—	—	<b>1.445</b>	1.316	—	—	0.902	—
Text Transformation	Editing	<b>1.550</b>	1.547	1.420	1.334	1.268	1.282	1.413	1.485
	Extract	<b>1.526</b>	1.453	1.336	1.277	1.266	1.309	1.217	1.467
	Summarizing	1.566	1.660	1.543	1.570	1.571	1.559	1.549	<b>1.671</b>
	Rephrasing	1.536	<b>1.556</b>	1.390	1.389	1.399	1.313	1.257	1.535
	Style transfer	1.381	<b>1.527</b>	1.396	1.329	1.306	1.371	1.213	1.496
	Translation	<b>1.743</b>	1.433	1.345	1.256	1.299	1.248	1.395	1.427
Text-Based Gen.	Text analysis (obj.)	1.603	<b>1.676</b>	1.570	1.614	1.556	1.636	1.529	1.659
	Text evaluation	1.405	<b>1.620</b>	1.605	1.609	1.499	1.610	1.246	1.606
	Text interpretation	1.487	<b>1.606</b>	1.468	1.516	1.414	1.497	1.466	1.567
	Text plan	1.536	1.619	1.566	<b>1.621</b>	1.486	1.587	1.500	1.611
	Text-dependent Qs	1.633	1.645	1.594	1.587	1.494	1.597	1.504	<b>1.655</b>
<b>Avg.</b>		<b>1.553</b>	1.542	1.479	1.464	1.370	1.390	1.391	1.534

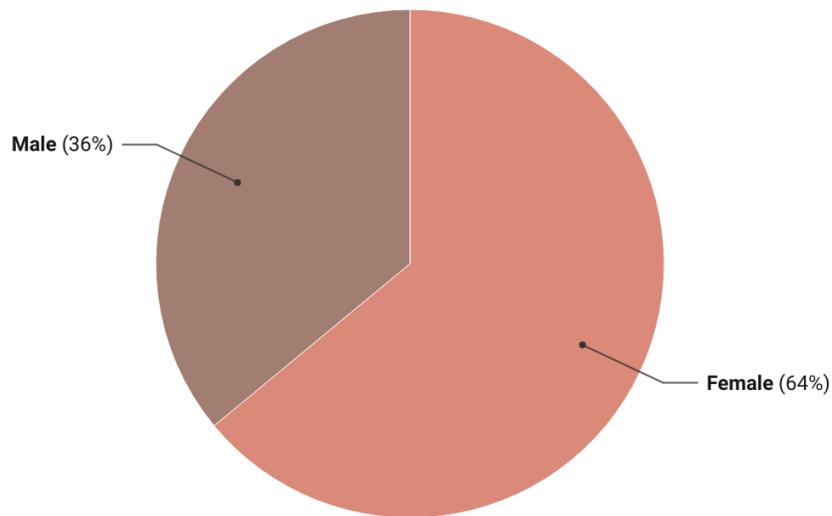
Table 11: Mean expert scores evaluated on the Full Test, aggregated by Task Type. Model versions and evaluation dates: Claude 3.5 Sonnet (2024-10-22), GPT-4o (2024-08-06), GigaChat-Max (1.0.26.20), YaGPT-4-Pro (2024-10-23), o1 (2024-12-17).

## B EXPERTS PROFILES

Information on experts, statistics, gender distribution and demographic indicators, etc. are presented in Figures 4, 5, 6, 7, 12, 8, 11, 9, 10.

On average, experts spent approximately 1.5 hours writing instructions of up to 3,000 characters, and a minimum of 2.5 hours on instructions exceeding 3,000 characters. The average instruction length in the benchmark is 762 characters, with the longest exceeding 10,000 characters (approximately 1.6% of instructions were longer than 7,000 characters). Annotators were compensated at the company’s official rates, which were above the market average. In total, the experts collectively spent over two months on the annotation task.

### Gender



100 people participated in the survey.

Figure 4: Survey participant gender distribution. The gender distribution among the benchmark’s creators suggests a positive trend towards gender diversity and inclusivity in the field.

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## Age

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18–24 years old 16%

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25–34 years old 61%

1193

35–44 years old 18%

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45–60 years old 5%

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*100 people participated in the survey.*

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## Region

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Moscow 53%

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Oryol 12%

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Moscow Region 5%

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Yoshkar-Ola 5%

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Volgograd 4%

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Saint Petersburg 3%

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Volzhsky 3%

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Pskov 2%

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Engels 1%

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Kemerovo 1%

1217

Kazan 1%

1218

Livny 1%

1219

Nizhny Novgorod 1%

1220

Novosibirsk 1%

1221

Rostov-on-Don 1%

1222

Saratov 1%

1223

Sirius 1%

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Smolensk 1%

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Tambov 1%

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Vancouver, Canada 1%

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Yekaterinburg 1%

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*100 people participated in the survey.*

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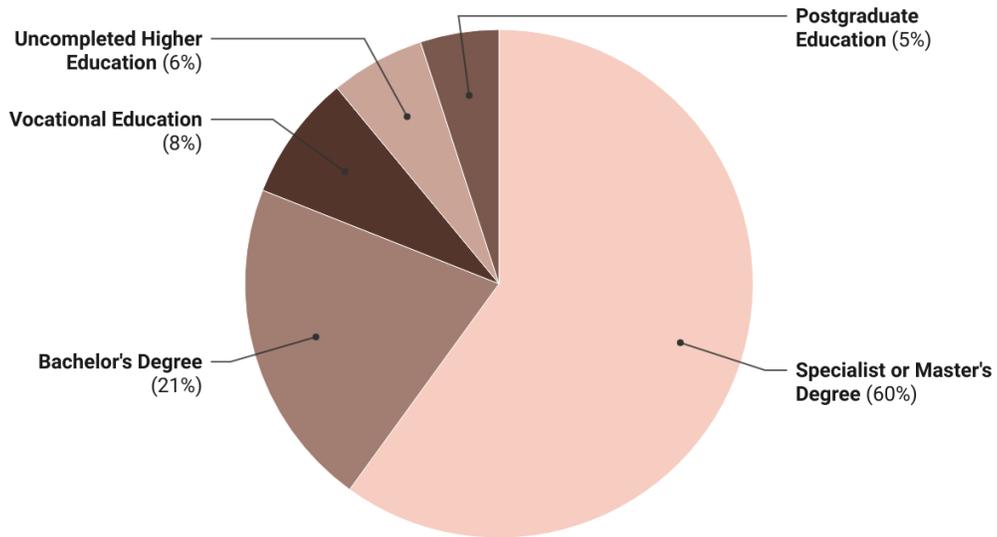
Figure 6: Survey participant region distribution. The regional distribution of the benchmark’s creators reveals that a significant majority, 53 percent, reside in Moscow, underscoring the city’s role as a central hub for scientific and technological development. The remaining 47 percent are dispersed across 20 different cities, indicating a broad geographical diversity within the team.

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Figure 7: Survey participant region distribution on the map of Russia.

### Education background

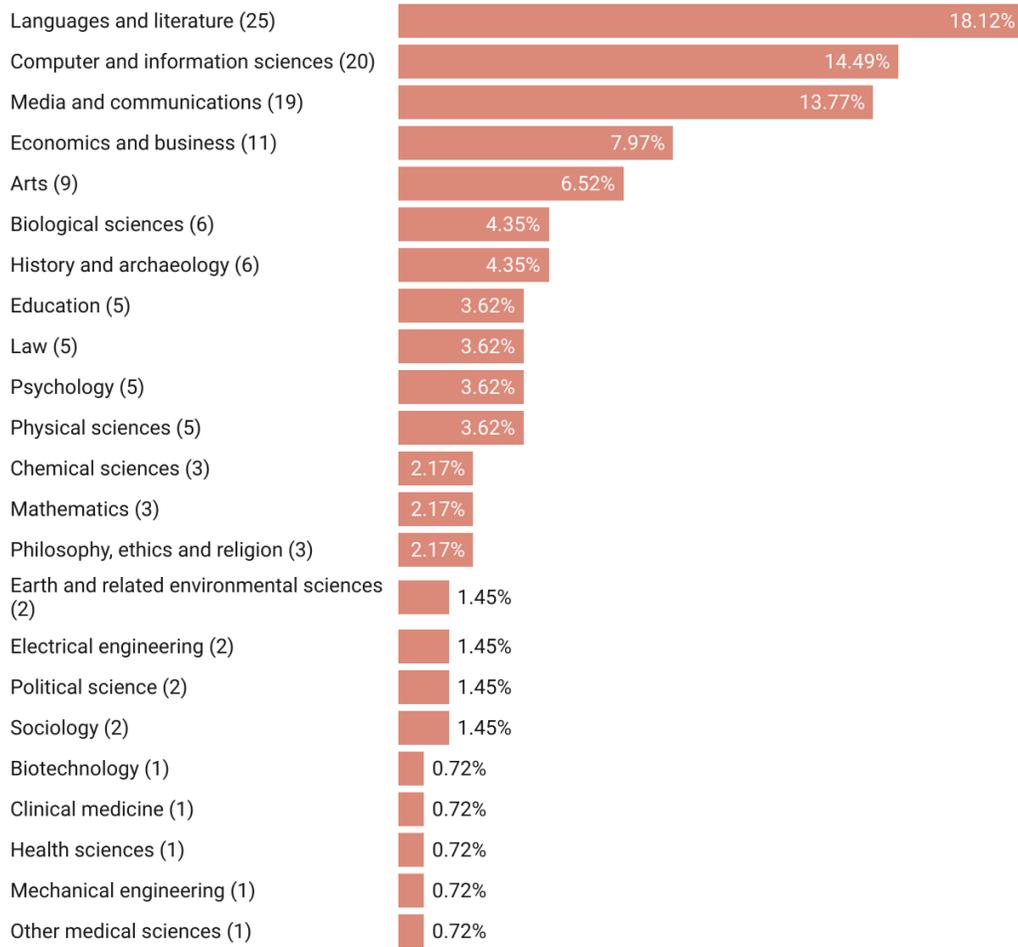


100 people participated in the survey.

Figure 8: Survey participant educational background distribution

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## Field of expertise

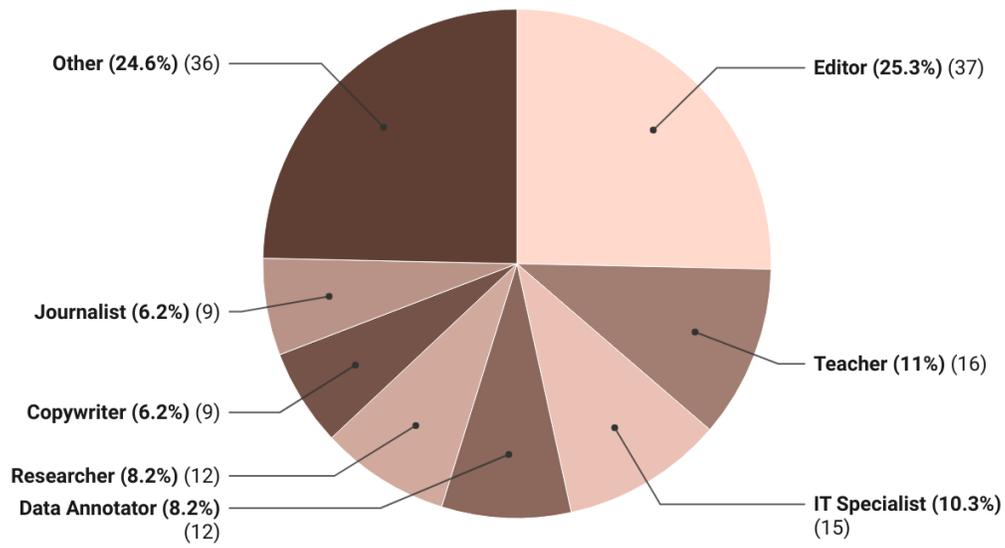


100 people participated in the survey. Participants were free to choose 2 or more options. The number of people who have chosen the Field is indicated in the brackets.

Figure 9: Survey participant field of expertise distribution. The diversity of expertise among the benchmark’s creators is extensive; 23 different fields. This multidisciplinary team includes professionals from the humanities, such as philologists and journalists, as well as experts from the natural sciences like physicists, and legal specialists. The collaboration of such a wide array of experts ensures that the benchmark is deeply and thoroughly developed.

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## Profession

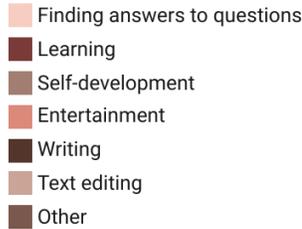


100 people participated in the survey. Participants were free to choose 2 or more options. The number of people who have chosen the Profession is indicated in the brackets.

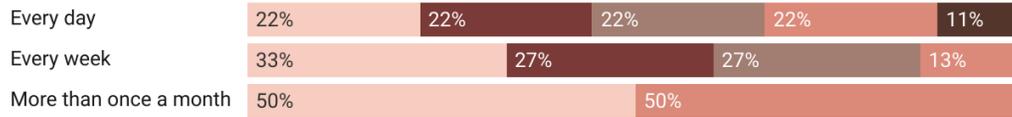
Figure 10: Survey participant profession distribution

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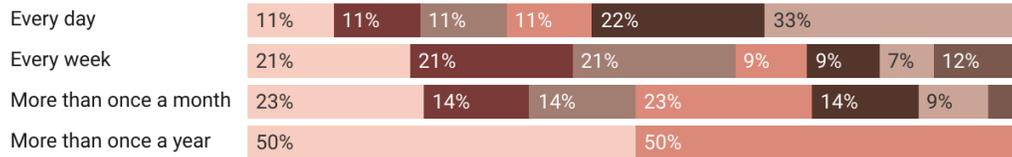
## Experience with LLMs



### less than a year (15%)



### one to two years (31%)



### more than two years (54%)

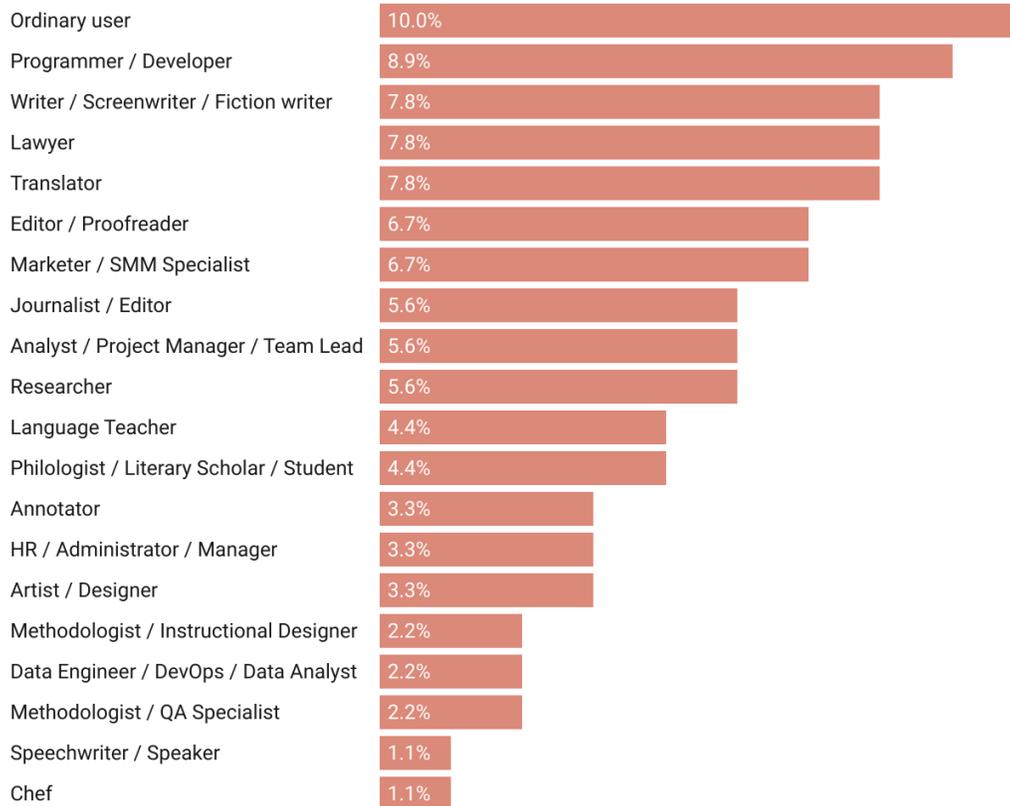


100 people participated in the survey. The survey results are divided into three groups according to the experience in using LLMs taking into account how frequent the participants use LLMs. The participants answered the question: "For what tasks do you use LLMs in ordinary life?" Participants were free to choose 2 or more options.

Figure 11: Survey participant distribution by experience with LLMs. The data reveals a community predominantly comprised of experienced LLM users, with the majority having integrated these technologies into their workflows for significant periods. This distribution suggests that the benchmark results largely reflect insights from practitioners with substantial practical knowledge rather than newcomers, lending credibility to the evaluations and observations presented in this study.

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## Professions that would benefit from LLMs



100 people participated in the survey. The participants answered the question: "List the professions that would benefit from LLMs". Participants were free to choose 2 or more options.

Figure 12: Professional spheres where LLMs may help. This distribution suggests generative AI's greatest value may lie in augmenting knowledge work requiring both structured information processing and creative adaptation. The prominence of ordinary users atop this hierarchy underscores these technologies' democratizing potential. These findings point to areas where focused development efforts and specialized evaluation benchmarks may yield particularly high-value applications.