

## 1.7 Alternative Quality Score Weighting Performance Assessment

Our quality score ( $qs_g$ ) currently consists of 5 dimensions that are weighted equally as depicted in formula (1) in the main manuscript (i.e., the 5 dimensions are just multiplied to get  $qs_g$ ). To evaluate the current weighting as depicted in formula (1) in the main manuscript, we consider an alternative weighting scheme: maximize the products of  $s_a$ ,  $s_k$ ,  $s_d$ , while having minimum thresholds (i.e., cutoff-values) for  $s_n$  and  $s_r$ . Table W1.7 compares the scores of the current against the alternative weighting scheme for all content produced for our field experiments in the IT service industry and the education sector when applying a 50% (i.e., keep 50% of the top scoring pieces of content) and a 25% (i.e., keep 25% of the top scoring pieces of content) cutoff value for  $s_n$  and  $s_r$ . A positive (negative) value in Table W1.7 means the quality score weighting scheme presented in the article according to formula (1) performs better (worse) than the alternative quality score weighting scheme. For example, using a cutoff value of 50% in the IT service industry sector experiment, the proposed quality score weighting scheme is superior for  $s_a$  (.022\*\*),  $s_k$  (.042\*\*),  $s_d$  (.042\*\*), and  $qs_g$  (.008\*\*), which is consistent across both the used cutoff values and experimental contexts. Thus, the alternative quality score weighting we considered does not result in any improvement, as cutting off content with lower  $s_n$  and  $s_r$  often results in discarding content that performs well in terms of  $s_a$ ,  $s_k$ ,  $s_d$ , which ultimately translates into a lower score for the overall quality metric  $qs_g$ .

Table W1.7: Comparison of Current vs. Alternative Quality Score Weighting Scheme

Field experiment	$s_n$ & $s_r$ cut-off value <sup>1</sup>	$s_a^2$	$s_k^2$	$s_d^2$	$s_n^2$	$s_r^2$	$qs_g^2$
IT service	50%	.022**	.042**	.042**	-.083**	-.021**	.008**
IT service	25%	.022**	.046**	.178**	-.167**	-.043**	.022**
Education	50%	.030**	.045**	.013**	-.083**	-.043**	.003**
Education	25%	.045**	.059**	.021**	-.083**	-.021**	.014**

<sup>1</sup>The cut-off value specifies how many top-scoring data points to maintain, i.e., 50% means keep 50% of the top scoring data-points in  $s_n$  &  $s_r$ , 25% means keep 25% of the top scoring data points in  $s_n$  &  $s_r$  (25% is thus more conservative)

<sup>2</sup>Reported values are median difference values, i.e., median  $qs_g$  score of old quality score scheme minus median  $qs_g$  score of new (as suggested by the reviewer) quality score scheme. A positive value means the old scheme is superior, a negative value means the new scheme is superior. Significance codes come from two-tailed Wilcoxon rank sum 2-group comparison tests: \*0.05 level, \*\*0.01 level;

## Appendix References

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