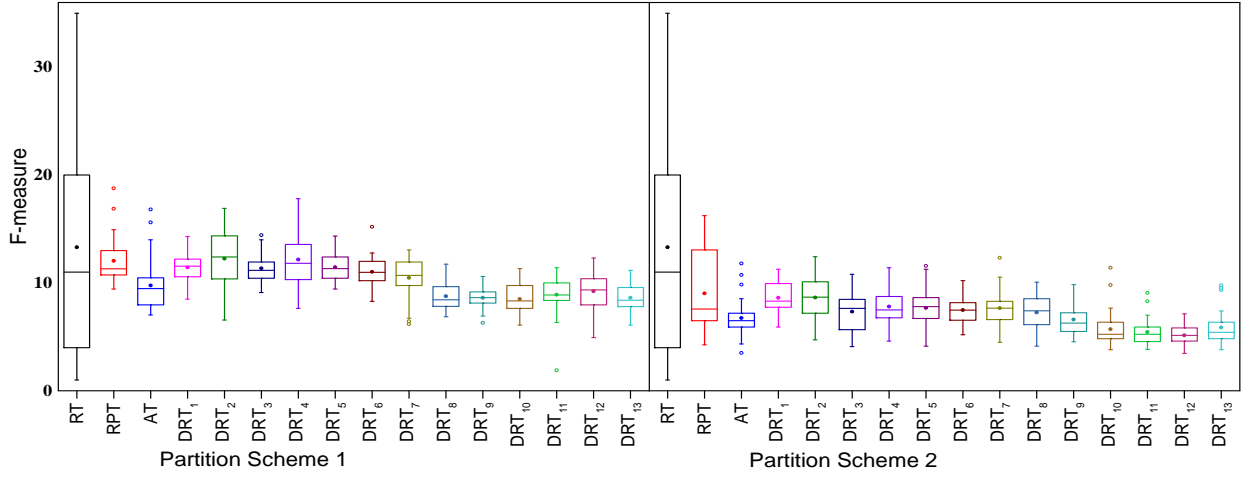
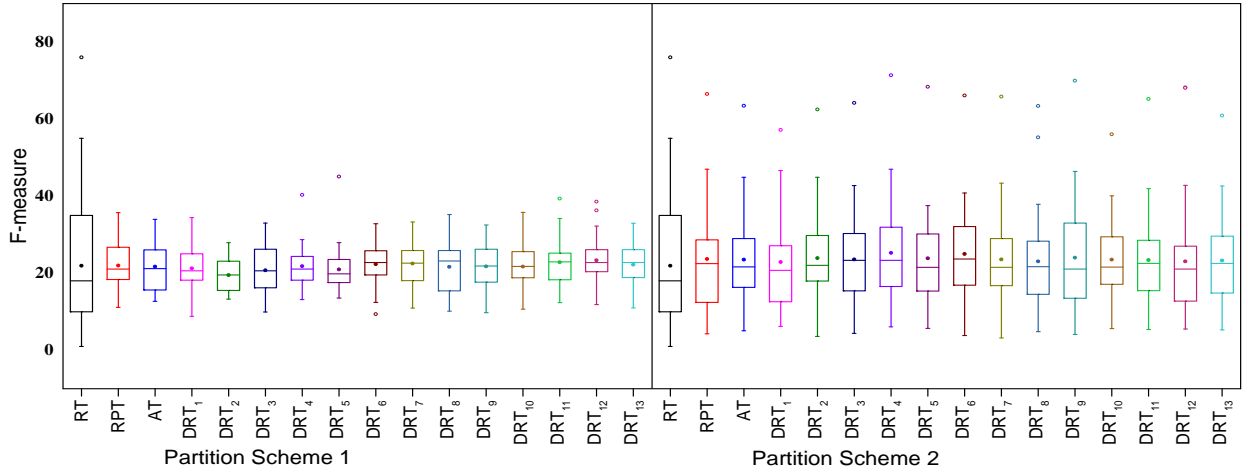


Appendix B: Experimental Results

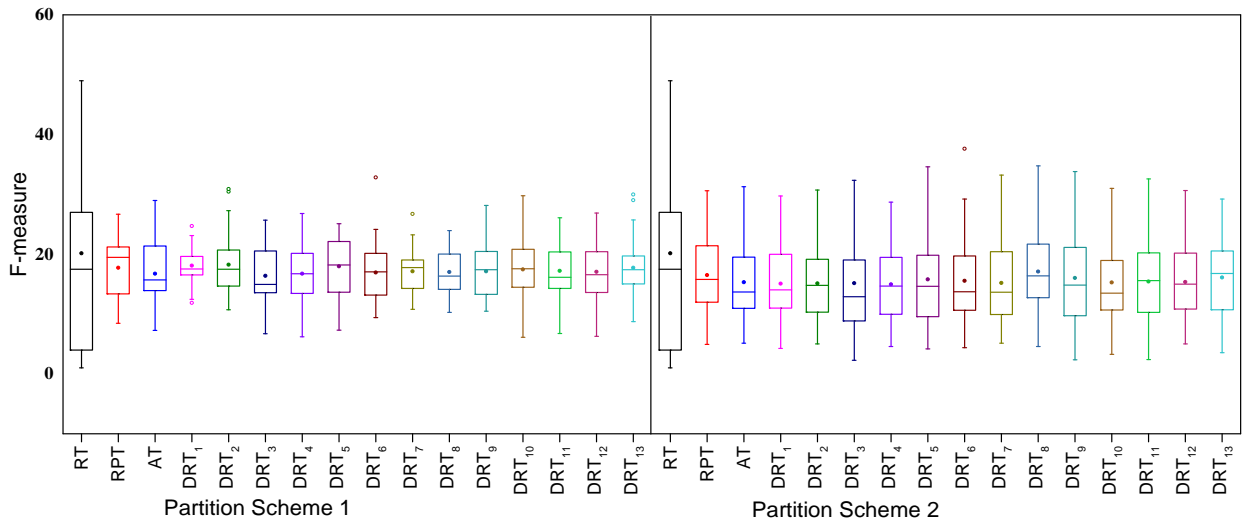
F-, F2-, and T-measure results for each program are displayed using boxplots in Figures 1 to 3, where DRT_i ($i = 1, 2, \dots, 13$) denotes the DRT with different values of ε , as described in Section 4.4.3.



(a) ACMS

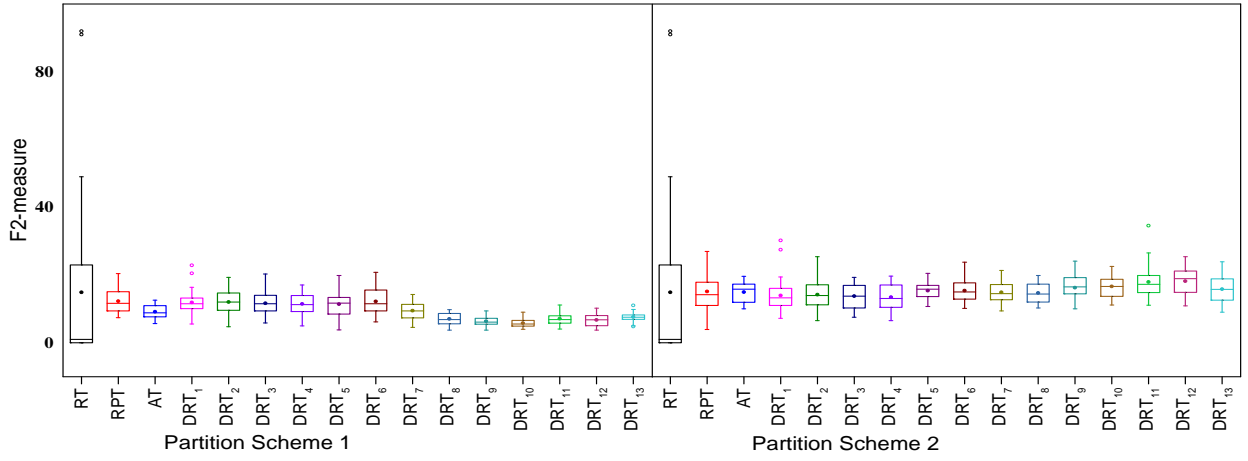


(b) CUBS

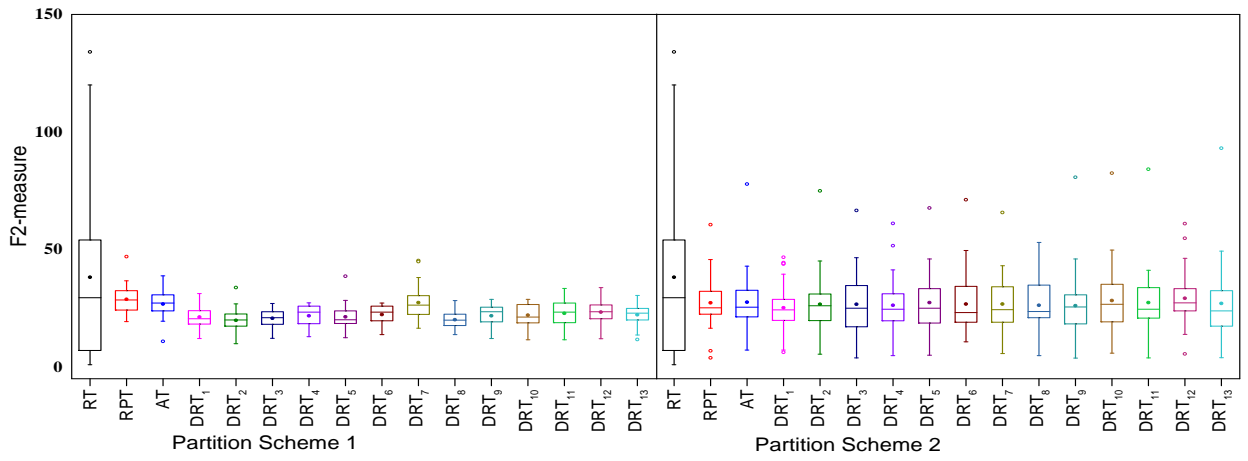


(c) PBS

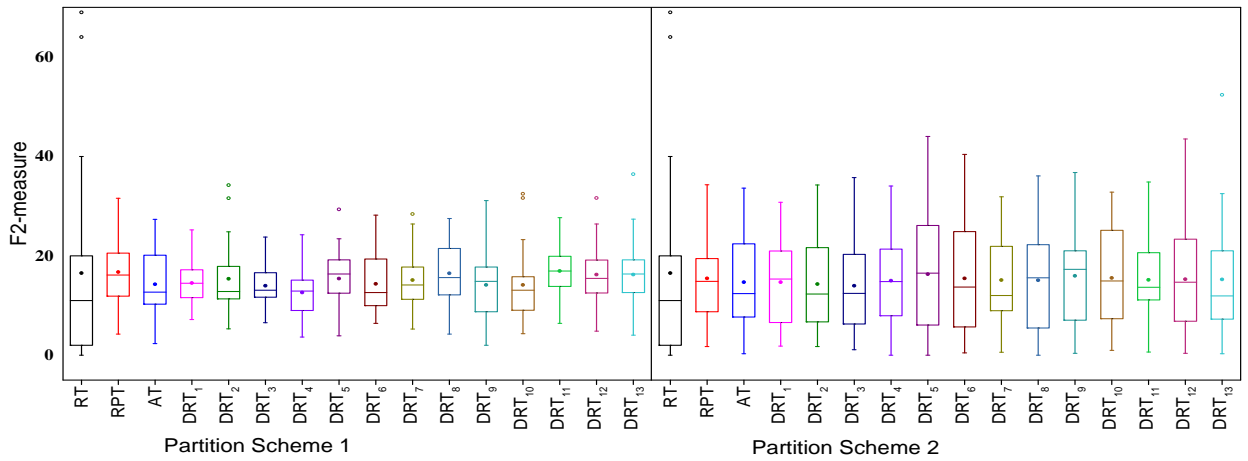
Fig. 1. F-measure boxplots for each web service



(a) ACMS

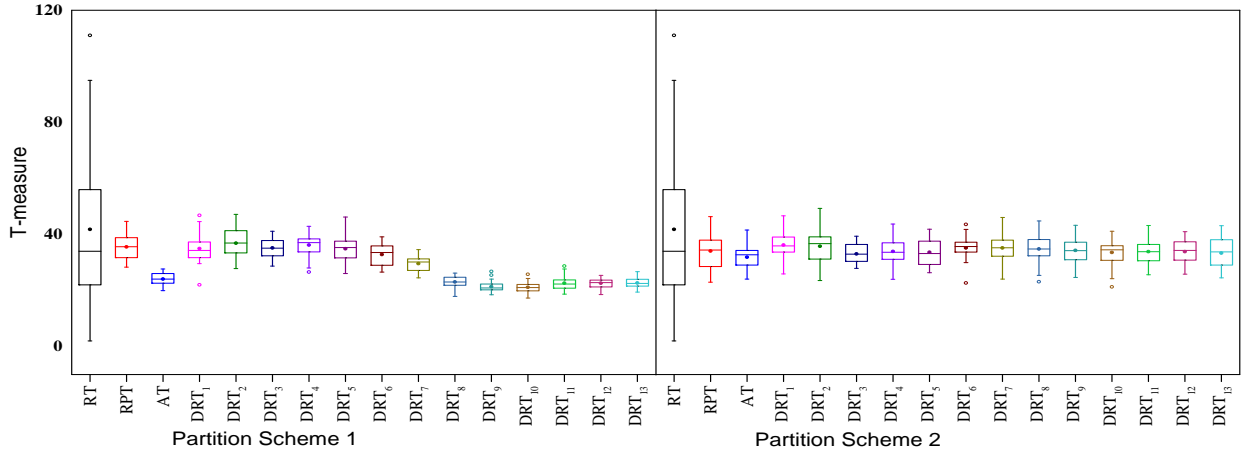


(b) CUBS

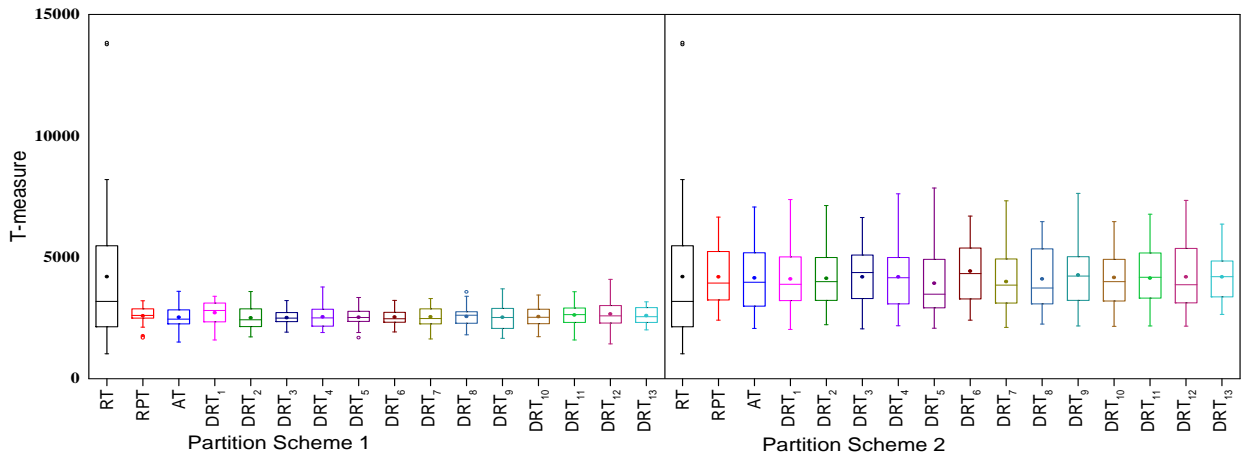


(c) PBS

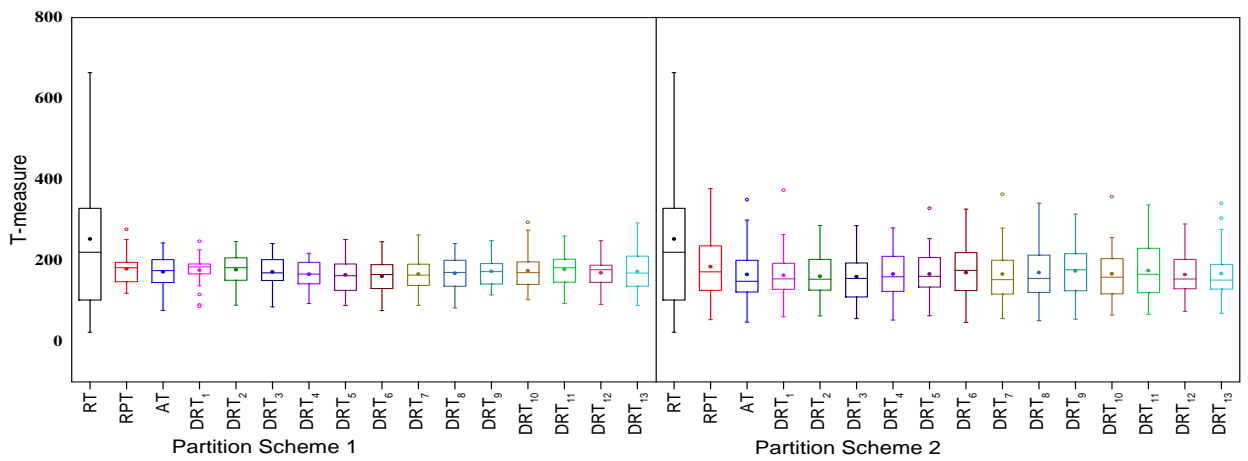
Fig. 2. F2-measure boxplots for each web service



(a) ACMS



(b) CUBS



(c) PBS

Fig. 3. T-measure boxplots for each web service

Tables 1 to 3 summarize the F-, F2-, and T-time results for three subject web services.

TABLE 1
F-time, F2-time and T-time for Web Service ACMS (in ms)

| Strategy | | Partition scheme 1 | | | Partition scheme 2 | | |
|----------|--------|--------------------|---------|--------|--------------------|---------|--------|
| | | F-time | F2-time | T-time | F-time | F2-time | T-time |
| RT | | 0.43 | 0.29 | 0.85 | 0.43 | 0.29 | 0.85 |
| RPT | | 0.57 | 0.31 | 1.08 | 0.33 | 0.45 | 0.78 |
| AT | | 0.49 | 0.34 | 2.47 | 15.53 | 363.47 | 459.67 |
| DRT | 1.0E-5 | 0.47 | 0.28 | 0.96 | 0.38 | 0.41 | 0.95 |
| | 5.0E-5 | 0.35 | 0.21 | 0.78 | 0.30 | 0.27 | 0.71 |
| | 1.0E-4 | 0.33 | 0.19 | 0.66 | 0.24 | 0.28 | 0.65 |
| | 5.0E-4 | 0.30 | 0.17 | 0.60 | 0.27 | 0.25 | 0.67 |
| | 1.0E-3 | 0.29 | 0.19 | 0.61 | 0.22 | 0.24 | 0.60 |
| | 5.0E-3 | 0.28 | 0.23 | 0.62 | 0.21 | 0.31 | 0.64 |
| | 1.0E-2 | 0.24 | 0.17 | 0.53 | 0.23 | 0.29 | 0.66 |
| | 5.0E-2 | 0.28 | 0.13 | 0.49 | 0.23 | 0.35 | 0.71 |
| | 1.0E-1 | 0.26 | 0.08 | 0.43 | 0.23 | 0.29 | 0.63 |
| | 2.0E-1 | 0.23 | 0.12 | 0.43 | 0.30 | 0.46 | 0.89 |
| | 3.0E-1 | 0.24 | 0.11 | 0.45 | 0.18 | 0.40 | 0.69 |
| | 4.0E-1 | 0.27 | 0.10 | 0.47 | 0.16 | 0.31 | 0.58 |
| | 5.0E-1 | 0.28 | 0.11 | 0.47 | 0.28 | 0.45 | 0.86 |

TABLE 2
F-time, F2-time and T-time for Web Service CUBS (in ms)

| Strategy | | Partition scheme 1 | | | Partition scheme 2 | | |
|----------|--------|--------------------|---------|----------|--------------------|---------|---------|
| | | F-time | F2-time | T-time | F-time | F2-time | T-time |
| RT | | 0.82 | 1.14 | 34.69 | 0.82 | 1.14 | 34.69 |
| RPT | | 0.91 | 0.87 | 30.54 | 0.75 | 0.79 | 34.59 |
| AT | | 140.13 | 172.27 | 32429.07 | 16.82 | 15.76 | 2666.17 |
| DRT | 1.0E-5 | 0.91 | 0.87 | 30.14 | 0.87 | 0.83 | 36.49 |
| | 5.0E-5 | 0.95 | 0.86 | 30.21 | 0.82 | 0.75 | 34.70 |
| | 1.0E-4 | 0.77 | 0.89 | 29.27 | 0.86 | 0.69 | 35.34 |
| | 5.0E-4 | 0.79 | 1.00 | 31.05 | 0.87 | 0.90 | 36.85 |
| | 1.0E-3 | 0.86 | 0.88 | 29.93 | 0.92 | 0.77 | 36.44 |
| | 5.0E-3 | 0.86 | 0.83 | 30.28 | 0.83 | 0.83 | 36.27 |
| | 1.0E-2 | 0.95 | 0.88 | 29.33 | 0.84 | 0.72 | 35.23 |
| | 5.0E-2 | 0.84 | 0.82 | 30.56 | 0.88 | 0.72 | 37.07 |
| | 1.0E-1 | 0.88 | 0.93 | 29.45 | 0.82 | 0.76 | 37.14 |
| | 2.0E-1 | 0.83 | 0.83 | 30.16 | 0.86 | 0.73 | 36.79 |
| | 3.0E-1 | 0.95 | 0.86 | 27.81 | 0.84 | 0.84 | 36.89 |
| | 4.0E-1 | 0.84 | 0.84 | 28.23 | 0.86 | 0.82 | 35.22 |
| | 5.0E-1 | 0.87 | 0.84 | 27.91 | 0.90 | 0.86 | 38.21 |

TABLE 3
F-time, F2-time and T-time for Web Service PBS (in ms)

| Strategy | | Partition scheme 1 | | | Partition scheme 2 | | |
|----------|--------|--------------------|---------|--------|--------------------|---------|--------|
| | | F-time | F2-time | T-time | F-time | F2-time | T-time |
| RT | | 0.81 | 0.42 | 4.12 | 0.81 | 0.42 | 4.12 |
| RPT | | 0.85 | 0.52 | 3.83 | 0.66 | 0.35 | 2.98 |
| AT | | 22.25 | 25.40 | 289.04 | 12.99 | 17.44 | 200.54 |
| DRT | 1.0E-5 | 0.76 | 0.48 | 3.85 | 1.05 | 0.51 | 3.44 |
| | 5.0E-5 | 0.73 | 0.35 | 3.02 | 0.91 | 0.52 | 3.79 |
| | 1.0E-4 | 0.54 | 0.36 | 2.97 | 0.49 | 0.34 | 2.26 |
| | 5.0E-4 | 0.68 | 0.34 | 3.20 | 0.50 | 0.30 | 2.31 |
| | 1.0E-3 | 0.62 | 0.38 | 2.87 | 0.52 | 0.38 | 2.42 |
| | 5.0E-3 | 0.60 | 0.38 | 2.99 | 0.43 | 0.51 | 2.40 |
| | 1.0E-2 | 0.58 | 0.42 | 2.84 | 0.51 | 0.34 | 2.41 |
| | 5.0E-2 | 0.64 | 0.44 | 3.27 | 0.59 | 0.36 | 2.49 |
| | 1.0E-1 | 0.65 | 0.38 | 3.46 | 0.60 | 0.38 | 2.56 |
| | 2.0E-1 | 0.60 | 0.36 | 3.22 | 0.54 | 0.59 | 2.47 |
| | 3.0E-1 | 0.59 | 0.44 | 3.24 | 0.57 | 0.46 | 2.57 |
| | 4.0E-1 | 0.61 | 0.33 | 2.90 | 0.51 | 0.33 | 2.54 |
| | 5.0E-1 | 0.62 | 0.44 | 3.16 | 0.56 | 0.36 | 2.56 |