

ONLINE APPENDIX

Table A1: Estimation results of OLS (dependent variable: Daily Spam Time)

<i>Independent Variables</i>	<i>Coefficient</i>	<i>s.e.</i>	<i>P> z </i>
Filter	0.117	0.424	0.782
Age	0.121***	0.022	0.000
Gender (2=male)	-0.566	0.398	0.156
Spam quantity	0.091***	0.007	0.000
Number of e-mails per day	-0.006	0.019	0.746
<i>Occupational Group</i>			
Professor	2.494***	0.966	0.010
PhD-student	0.629	0.790	0.426
Administrative Office	1.665**	0.902	0.065
Filing Clerk	-0.277	1.045	0.791
Student Assistant	0.666	1.049	0.526
<i>Department</i>			
Economics & Business	0.252	0.803	0.754
Medical School	-0.425	0.616	0.490
Agricultural School	1.542	1.113	0.166
Natural Science	-0.616	0.553	0.266
Humanities	0.638	0.664	0.337
Administration	-0.638	0.955	0.504
Data Center	0.491	1.505	0.744
<i>Internet Browser Type</i>			
Microsoft Internet Explorer	-0.855	1.661	0.607
Opera	0.338	1.831	0.853
Netscape	-0.323	1.722	0.851
Firefox	-0.471	1.929	0.807
Other Browser	0.131	1.733	0.940
<i>Operation System</i>			
Linux	-2.296	1.523	0.132
Macintosh	-0.649	1.832	0.723
Windows 2000	-0.696	1.341	0.604
Windows 98	-0.949	1.389	0.495
Windows NT	-0.544	1.500	0.717
Windows XP	-0.172	1.335	0.990
Windows 95	-0.916	2.365	0.699
<i>Spam prevention</i>			
Avoided publishing e-mail on website	0.126	0.145	0.387
Avoided transfer of e-mail address	-0.156	0.158	0.328
Alternative e-mail address was used	0.115	0.126	0.362
Uncommon e-mail address was used	-0.482**	0.250	0.054
Requested removal from e-mail lists	0.506***	0.138	0.000
<i>Distribution of e-mail address</i>			
To friends / acquaintances	-0.364	0.413	0.378
To colleagues / business partners	-0.113	0.724	0.876
On websites	0.775	0.486q	0.112
In online directories	0.570	0.441	0.196
In online forums	0.068	0.787	0.930
Newsletter subscriptions	0.013	0.436	0.976
Constant	-1.604***	2.576	0.534
R ² (adj.)		0.26	

***/**/* Statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A2: Estimation results for alternative matching algorithms

<i>Est.</i>	<i>Effect Daily (s.e.)[t-value]</i>	<i>offsup</i>	<i>biasaft</i>	<i>R²after</i>
KM (0.02) Epanechnikov	-2.10** (0.933)[-2.25]	2	7.11	0.036
KM (0.06) Epanechnikov	-2.14** (0.938)[-2.28]	0	5.63	0.026
KM (0.02) Epanechnikov, CS	-1.39* (0.816)[-1.70]	13	5.69	0.026
KM (0.06) Gaussian	-1.20 (0.939)[-1.28]	0	4.79	0.024
KM (0.06) Gaussian, CS	-0.94 (0.829)[-1.13]	11	4.18	0.018
<i>offsup:</i>	Number of users outside common support region			
<i>bias aft:</i>	Mean standardized bias (over all variables used in PS specification) after matching			
<i>s.e.</i>	Standard errors based on 1,000 bootstrap replications			
<i>Est.</i>	KM: Kernel matching (bandwidth parameter)			
	CS: Common support			
***/**/*	Statistical significance at the 1%, 5%, and 10% levels, respectively.			
	Matching is conducted using the Stata psmatch2.ado program by Leuven and Sianesi (2003).			

Table A3: Sensitivity analysis, unobserved heterogeneity

<i>Gamma</i>	<i>t-hat+</i> (<i>Sig+</i>)	<i>t-hat-</i> (<i>Sig-</i>)	<i>CI+</i>	<i>CI-</i>
1	-1.42 (3.1e-11)	-1.42 (3.1e-11)	-1.84	-1.06
1.1	-1.64 (3.7e-14)	-1.25 (9.8e-09)	-2.07	-0.86
1.2	-1.8 (0)	-1.09 (8.6e-07)	-2.32	-0.72
1.3	-1.98 (0)	-0.94 (0.000028)	-2.54	-0.53
1.4	-2.19 (0)	-0.79 (0.000435)	-2.74	-0.33
1.5	-2.36 (0)	-0.68 (0.003623)	-2.92	-0.14
1.6	-2.54 (0)	-0.53 (0.018493)	-3.11	-0.03
1.7	-2.70 (0)	-0.38 (0.06365)	-3.36	0.10
1.8	-2.85 (0)	-0.19 (0.159353)	-3.56	0.19
1.9	-2.99 (0)	-0.09 (0.308994)	-3.73	0.30
2	-3.16 (0)	-0.01 (0.48955)	-3.90	0.44

Gamma: log odds of differential assignment due to unobserved factors

Sig+: upper bound significance level

Sig-: lower bound significance level

t-hat+: upper bound Hodges-Lehmann point estimate

t-hat-: lower bound Hodges-Lehmann point estimate

CI+: upper bound confidence interval ($\alpha = .95$)

CI-: lower bound confidence interval ($\alpha = .95$)

The bounding analysis is conducted using the Stata mhbounds.ado program by Becker and Caliendo (2007)

Table A4: Matching results for annual measure

<i>Est.</i>	<i>Effect</i>	<i>s.e.</i>	<i>t-value</i>	<i>offsup</i>	<i>biasbef</i>	<i>biasaft</i>	<i>R²after</i>
220 days + installation costs							
A	-364.77	242.05	-1.51	0	12.45	10.15	0.074
B	-210.58	224.26	-0.94	11	12.45	9.12	0.063
C	-312.45	198.37	-1.58	11	12.45	4.87	0.020
365 days + installation costs							
A	-642.92	401.82	-1.60	0	12.45	10.15	0.074
B	-385.78	372.64	-1.04	11	12.45	9.12	0.063
C	-554.79*	329.66	-1.68	11	12.45	4.87	0.020
<i>offsup:</i>	Number of users outside common support region.						
<i>biasbef:</i>	Mean standardized bias (over all variables used in PS specification) before matching.						
<i>bias aft:</i>	Mean standardized bias after matching.						
<i>Est.:</i>	A(B): Nearest Neighbor Matching without (with) common support condition, C: Kernel matching (Epanechnikov kernel function, bandwidth parameter: 0.06) with common support condition.						
<i>s.e.</i>	Standard errors based on 1,000 bootstrap replications.						
***/**/*	Statistical significance at the 1%, 5%, and 10% levels, respectively. Matching is conducted using the Stata psmatch2 ado program by Leuven and Sianesi (2003).						

Table A5: Descriptive statistics of key variables for participants of Study 2

	Mean	SD
Working time losses per day (minutes)	4.36	5.46
Age (years)	41.27	11.05
Gender (2=male)	1.55	0.53
Number of e-mails per day	24.10	27.93
Number of spam mail per day	17.05	24.83

Table A6: Comparison of variables between Study 1 and Study 2 for users who installed (additional) countermeasures after Study 1

	Study 1	Study 2	Difference	p
Avoided publishing e-mail on website*	2.82	3.22	-.40	.00
Avoided transfer of e-mail address	2.62	2.64	-.02	.84
Alternative e-mail address was used	2.70	2.73	-.03	.72
Uncommon e-mail address was used	1.26	1.33	-.07	.19
Requested removal from e-mail lists	1.95	2.03	-.08	.44

* The difference between Study 1 and Study 2 is of the same magnitude when users who did not install (additional) countermeasures after Study 1 are analyzed. Hence, we conclude that this variable is not affected by the decision to install a spam filter.

Table A7: Comparison of working time losses between Study 1 and Study 2 for users who did not install (additional) countermeasures after Study 1

	Study 1	Study 2	Difference	p
Working time losses per day (Users without filter in Study 1 and Study 2; n=109)	2.39	2.55	-.16	.58
Working time losses per day (Users without additional filter in Study 2; n=62)	4.23	3.79	.44	.40