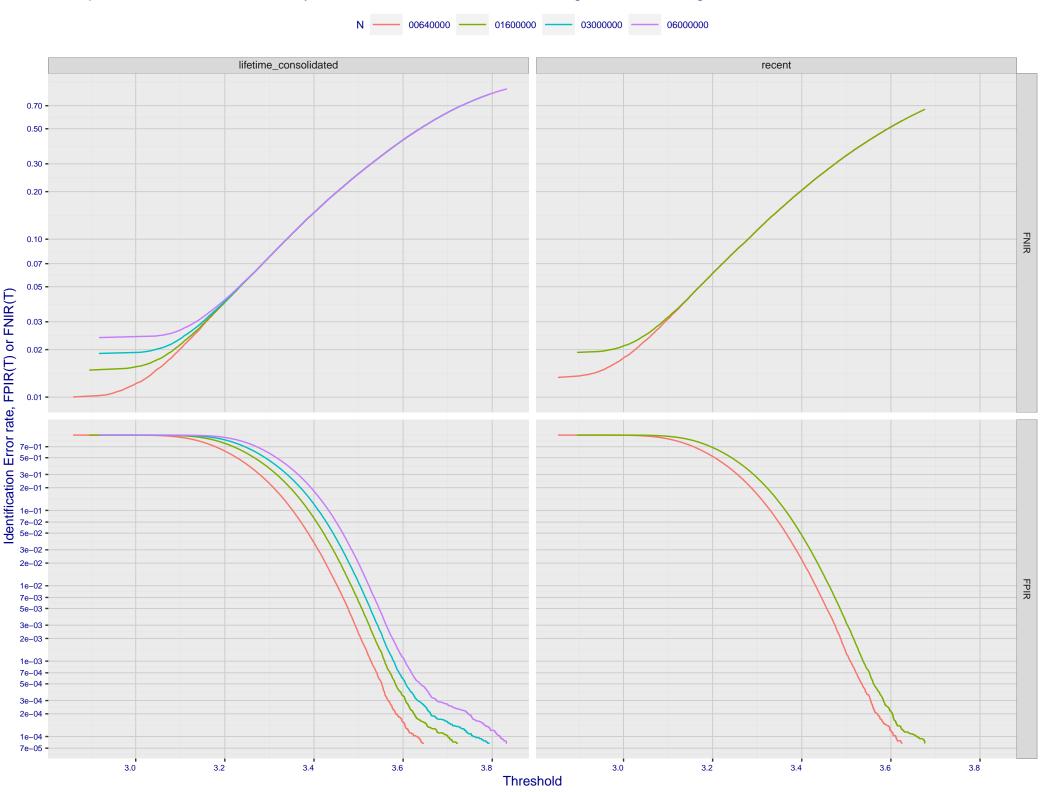
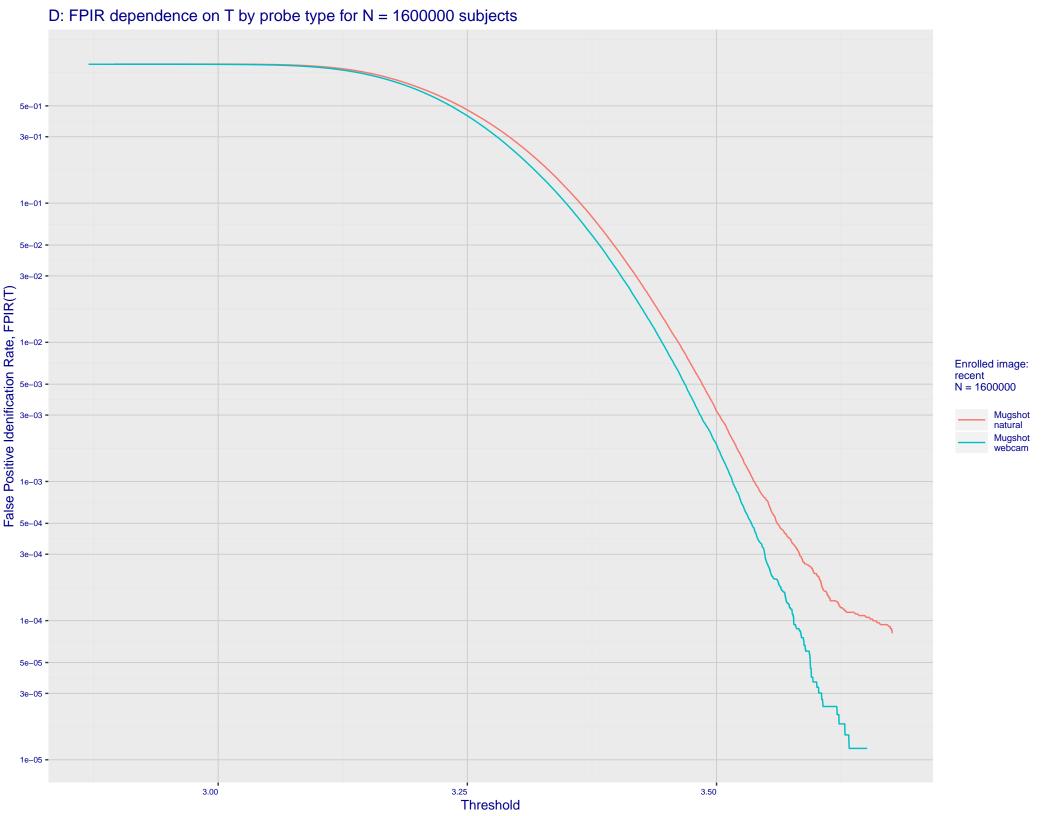
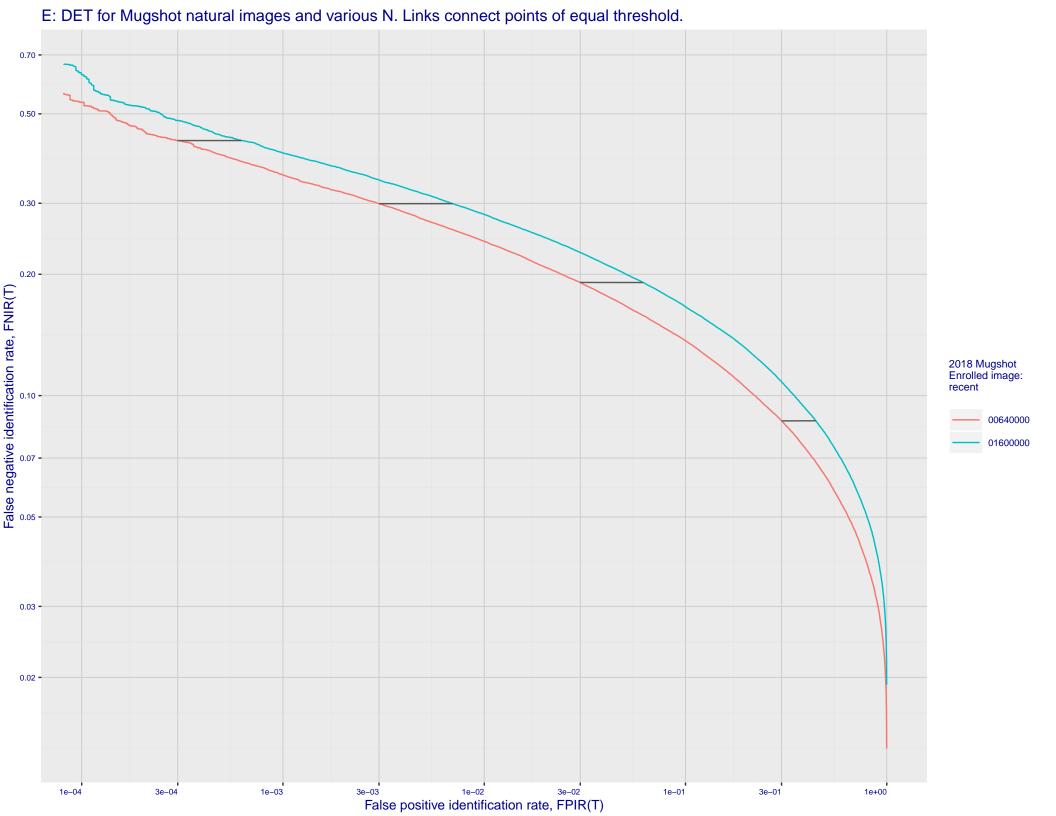
A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-kiosk visa-border natural 0.50 -0.30 -False negative identification rate, FNIR(T) enrolment_style consolidated-ONE-MATE random-ONE-MATE recent-ONE-MATE 0.03 -0.02 -1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 1e-04 3e-04 1e-03 3e-03 1e-02 3e-02 1e-01 3e-01 1e+00 False positive identification rate, FPIR(T)

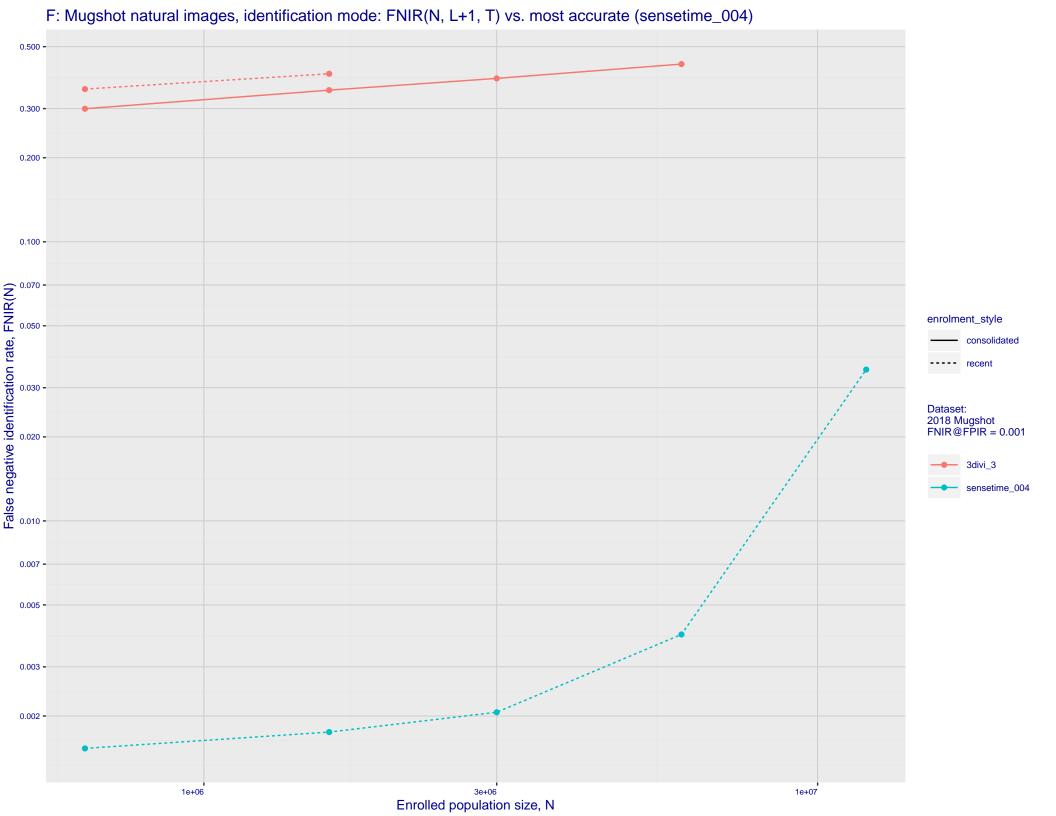
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 5e+01 3e+01 2e+01 -1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -3e-01 -2e-01 -1e-01 -7e-02 -7e-02 -7e-02 -3e-02 -3e-02 -1e-02 -7e-03 -Enrolled images: recent N = 1600000Mugshot natural Mugshot webcam 7e-03 5e-03 -3e-03 -2e-03 -1e-03 -7e-04 -5e-04 -3e-04 -2e-04 -1e-04 **-**7e-05 -5e-05 -3e-05 -2e-05 -1e-05 -1e-05 3e-05 1e-04 3e-04 1e-01 3e-01 False Positive Idenification Rate, FPIR(T)







G: Datasheet

Algorithm: 3divi_3

Developer: 3Divi

Submission Date: 2018_06_19

Template size: 512 bytes

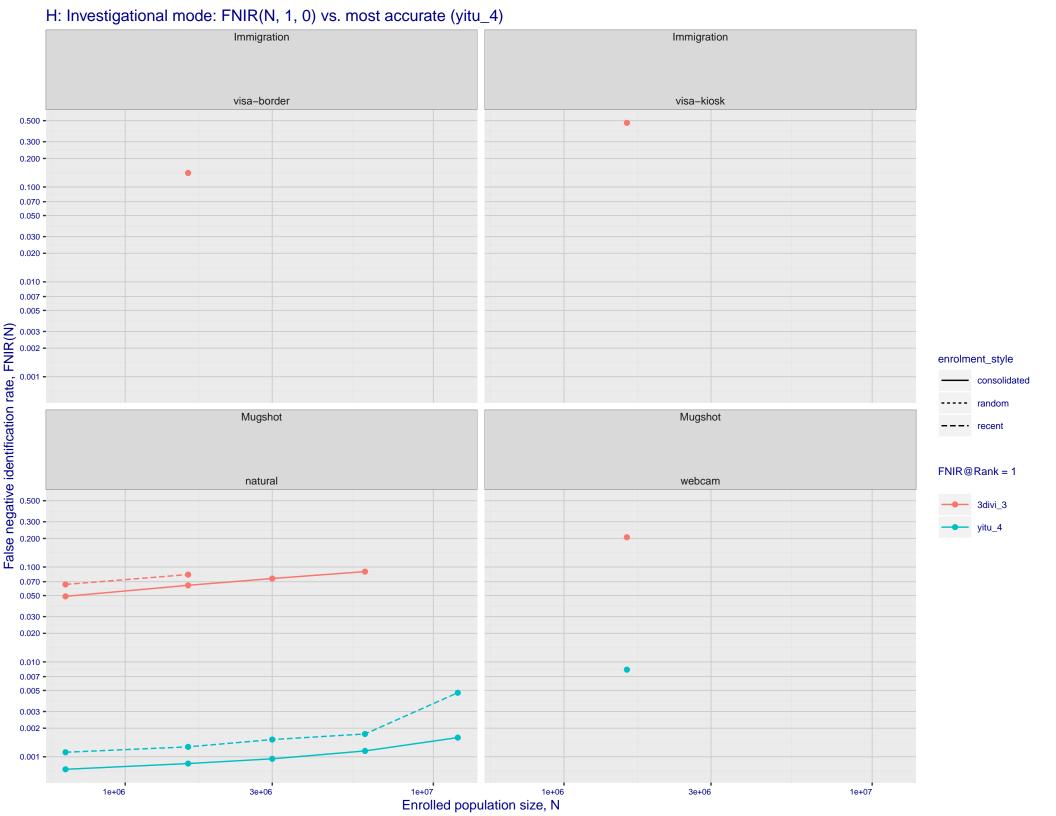
Template time (2.5 percentile): 486 msec

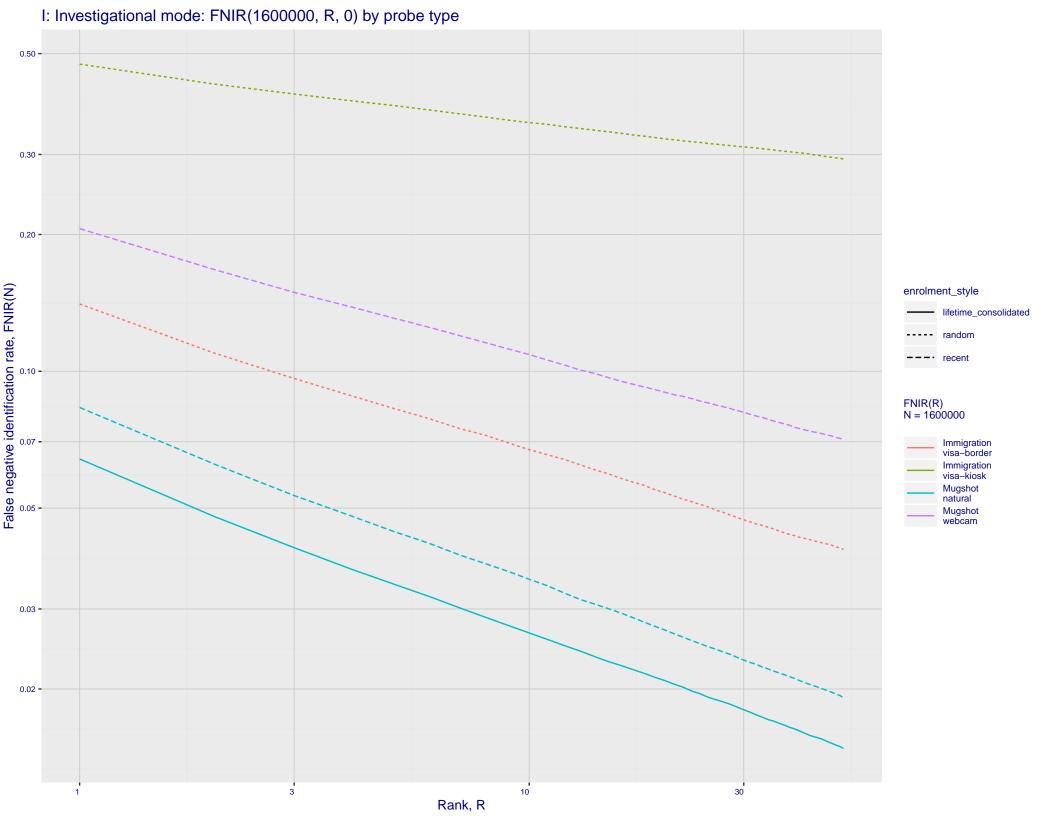
Template time (median): 610 msec

Template time (97.5 percentile): 826 msec

Frontal mugshot investigation rank 203 — FNIR(1600000, 0, 1) = 0.0833 vs. lowest 0.0010 from sensetime_004 natural investigation rank 178 — FNIR(1600000, 0, 1) = 0.2060 vs. lowest 0.0067 from sensetime_003 natural investigation rank 84 — FNIR(1600000, 0, 1) = 0.1407 vs. lowest 0.0014 from visionlabs_009 natural investigation rank 92 — FNIR(1600000, 0, 1) = 0.4742 vs. lowest 0.0694 from cib_000

Frontal mugshot identification rank 197 — FNIR(1600000, T, L+1) = 0.3999 vs. lowest 0.0018 from sensetime_004 natural identification rank 79 — FNIR(1600000, T, L+1) = 0.6257 vs. lowest 0.0122 from sensetime_004 natural identification rank 79 — FNIR(1600000, T, L+1) = 0.6066 vs. lowest 0.0059 from sensetime_004 natural identification rank 71 — FNIR(1600000, T, L+1) = 0.8221 vs. lowest 0.1129 from visionlabs_009





Template duration; search duration vs. N. The blue and pink ribbon covers 95 percent of observed measurements. The template generation time is independent of N. The log and power–law models are fit to the first two (N,T) observations MODEL — Log Model ---- Power Law Model

