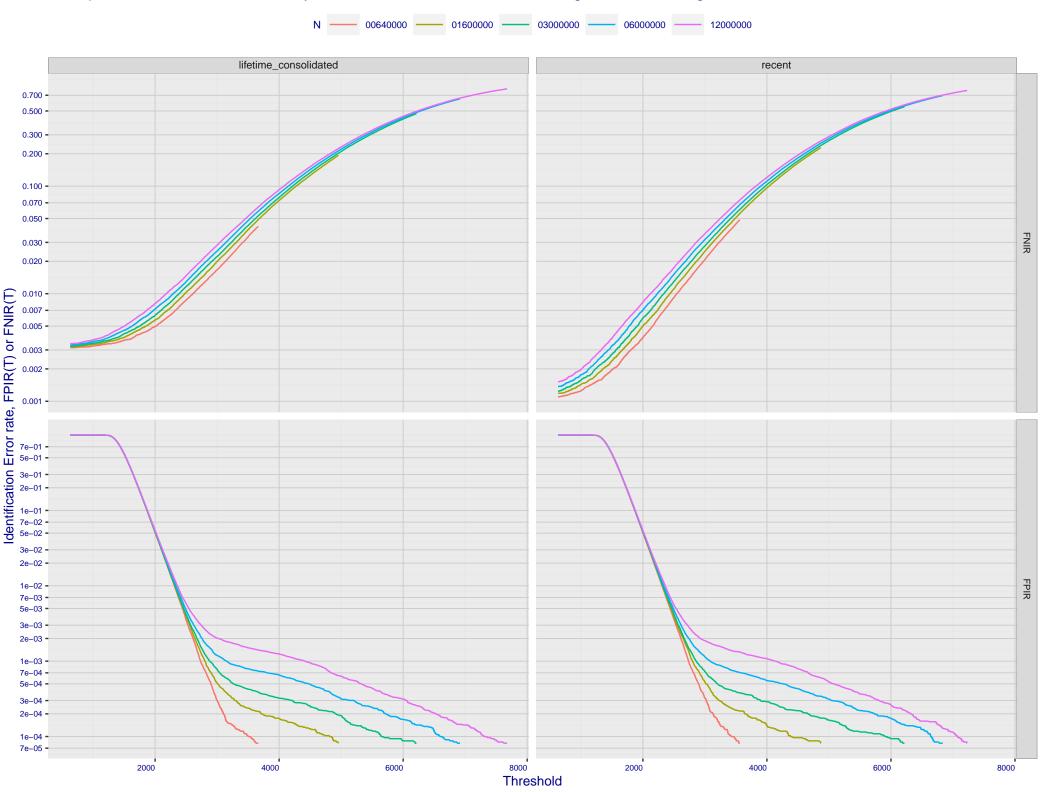
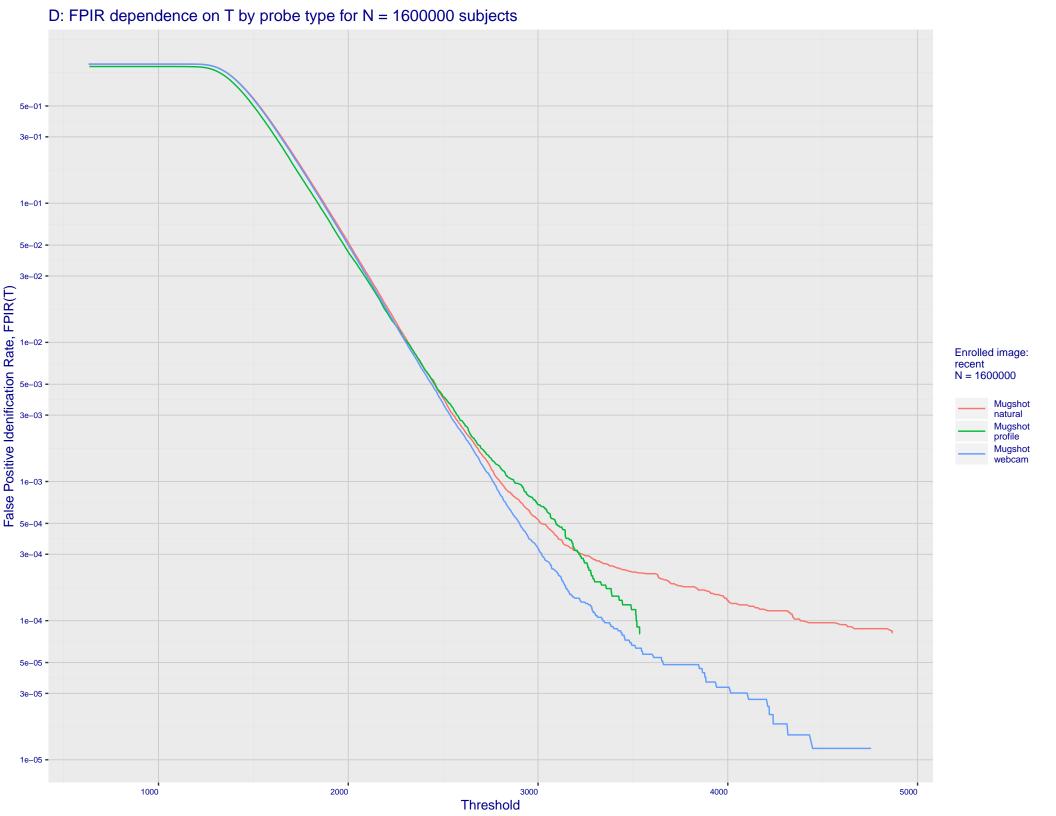
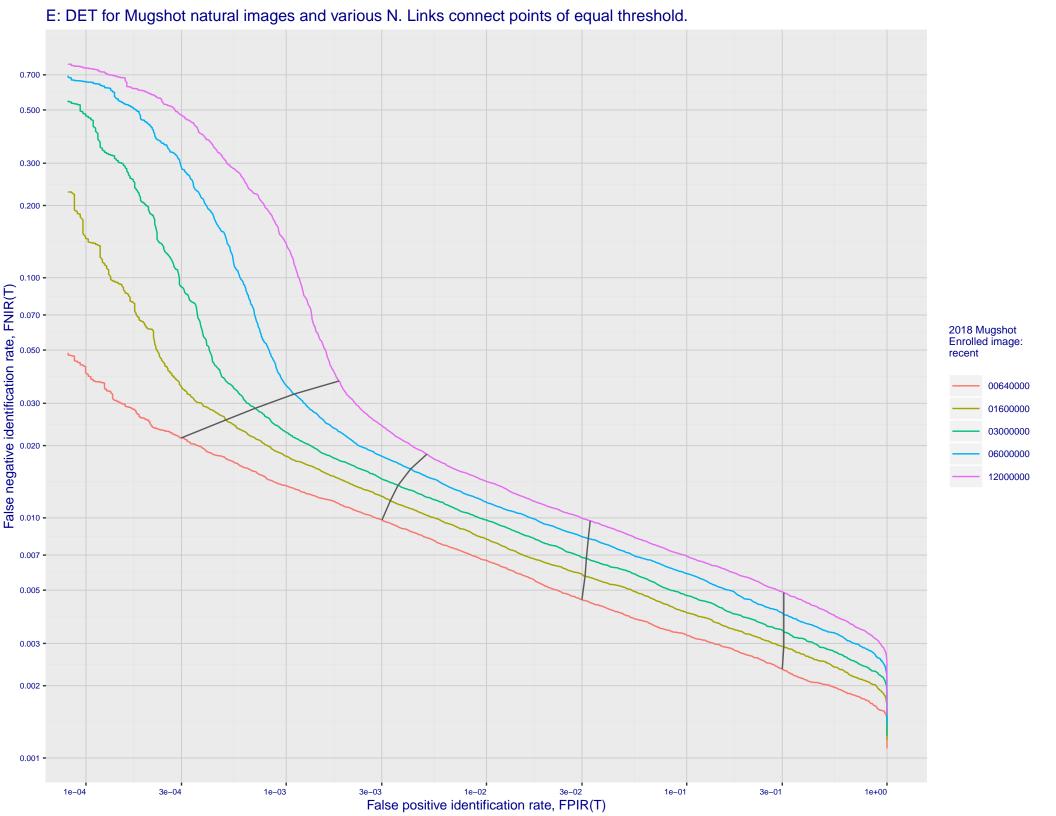
A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Immigration Immigration Mugshot visa-border visa-kiosk natural 0.700 0.500 -0.300 0.200 -False negative identification rate, FNIR(T) enrolment_style consolidated-ONE-MATE random-ONE-MATE recent-ONE-MATE unconsolidated-ALL-MATES unconsolidated-ANY-MATE 0.007 -0.005 -0.003 -0.002 • 0.001 -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)

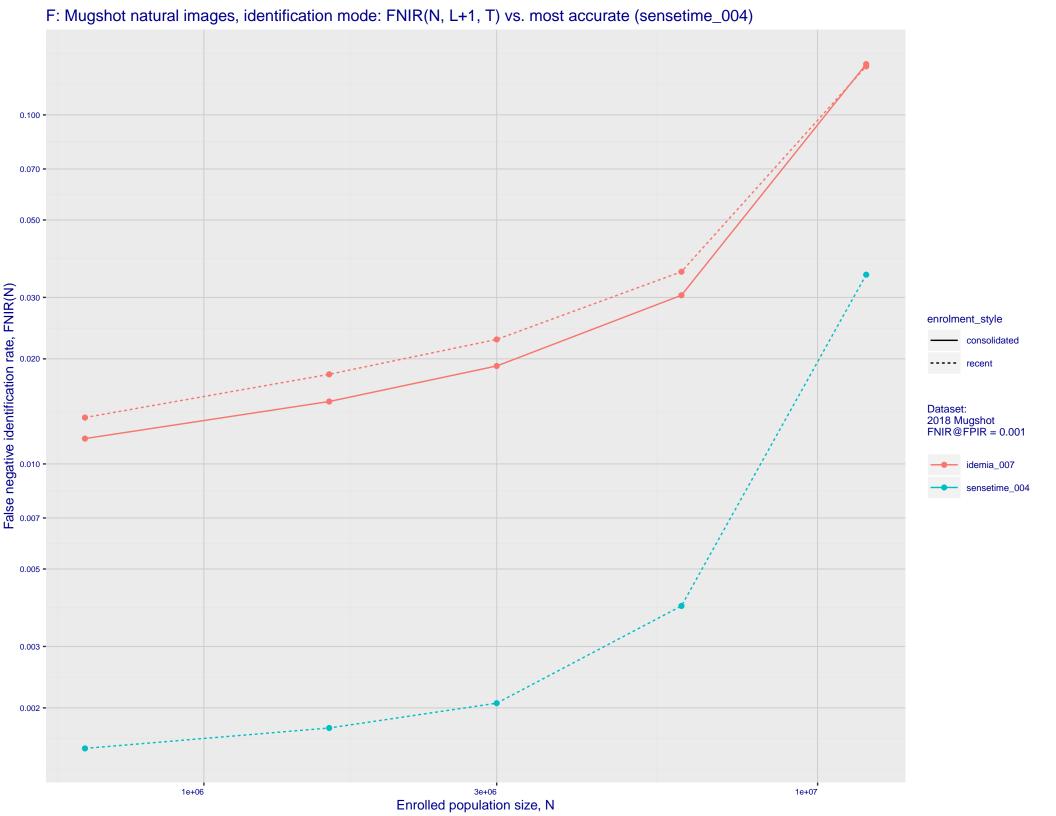
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



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 -5e-02 -7e-02 -3e-02 -1e-02 -7e-03 -Enrolled images: recent N = 1600000 Mugshot natural Mugshot profile 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: idemia_007

Developer: Idemia

Submission Date: 2020_01_17

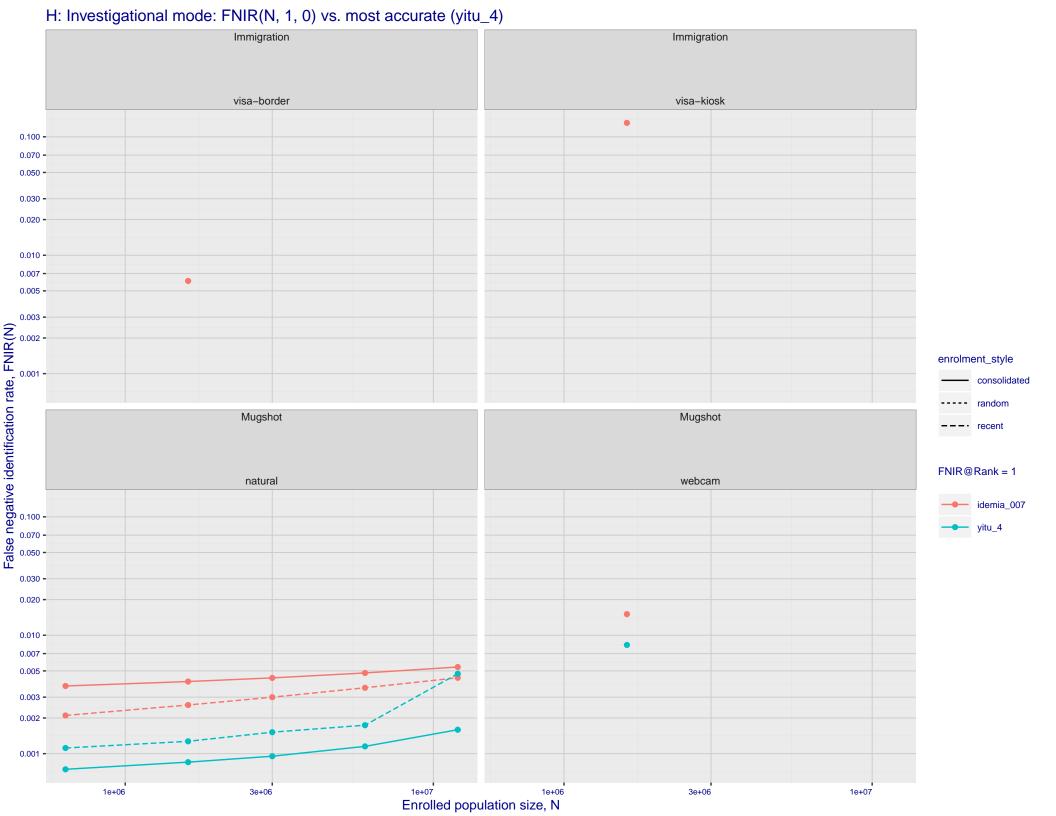
Template size: 860 bytes

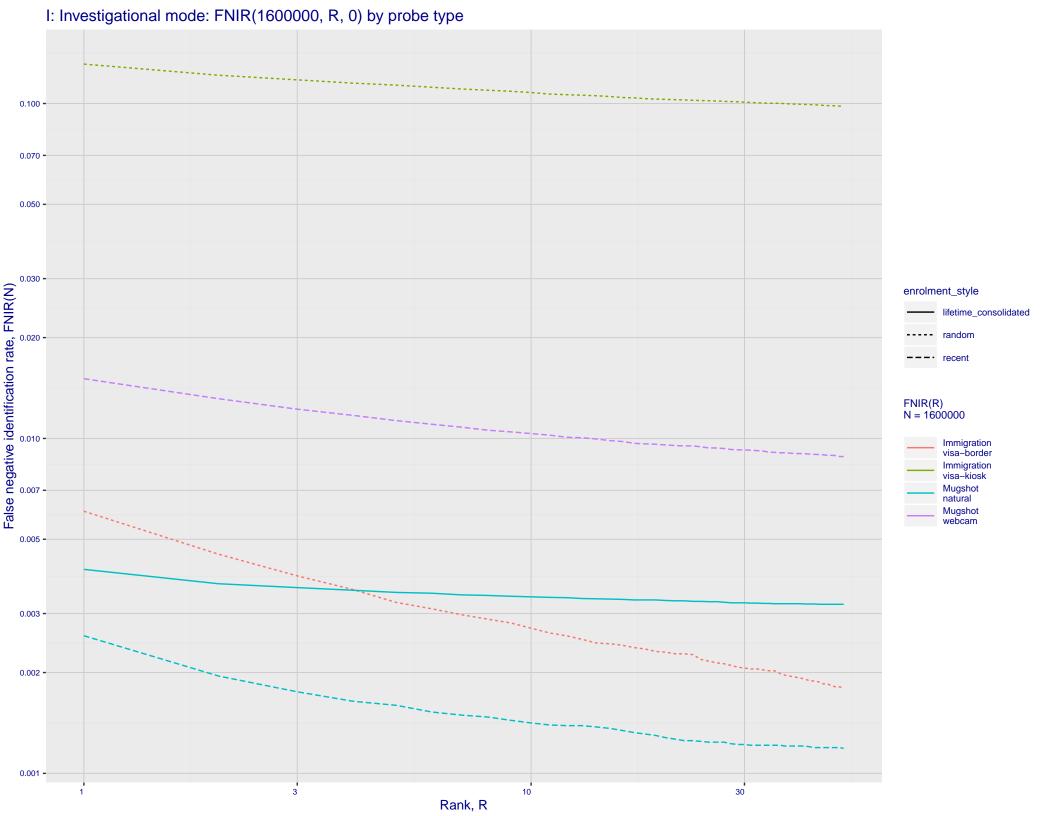
Template time (2.5 percentile): 783 msec

Template time (median): 794 msec

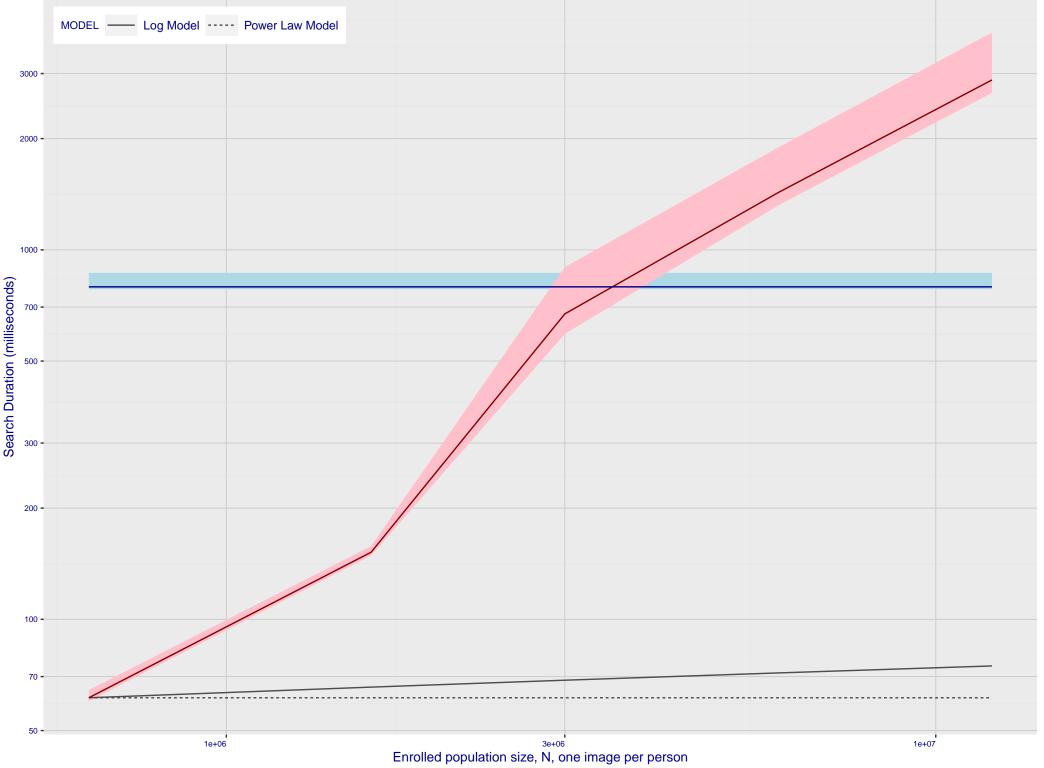
Template time (97.5 percentile): 866 msec

Frontal mugshot investigation rank 37 — FNIR(1600000, 0, 1) = 0.0026 vs. lowest 0.0010 from sensetime_004 natural investigation rank 34 — FNIR(1600000, 0, 1) = 0.0151 vs. lowest 0.0067 from sensetime_003 natural investigation rank 364 — FNIR(1600000, 0, 1) = 1.0000 vs. lowest 0.0492 from paravision_005 natural investigation rank 364 — FNIR(1600000, 0, 1) = 1.0000 vs. lowest 0.0492 from paravision_005 natural investigation rank 32 — FNIR(1600000, 0, 1) = 0.0061 vs. lowest 0.0014 from visionlabs_009 natural investigation rank 38 — FNIR(1600000, 0, 1) = 0.1311 vs. lowest 0.0694 from cib_000 Frontal mugshot identification rank 24 — FNIR(1600000, T, L+1) = 0.0181 vs. lowest 0.0018 from sensetime_004 natural identification rank 22 — FNIR(1600000, T, L+1) = 0.0546 vs. lowest 0.0122 from sensetime_003 natural identification rank 180 — FNIR(1600000, T, L+1) = 1.0000 vs. lowest 0.1020 from sensetime_004 natural identification rank 32 — FNIR(1600000, T, L+1) = 0.0515 vs. lowest 0.0059 from sensetime_004 natural identification rank 95 — FNIR(1600000, T, L+1) = 1.0000 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 - Log Model ---- Power Law Model



M: Identification FNIR(N, T, L+1) and Investigational FNIR(N, 0, R) under ageing

