A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Mugshot natural 0.50 -0.30 0.20 -False negative identification rate, FNIR(T) enrolment_style recent-ONE-MATE 0.03 -0.02 -

False positive identification rate, FPIR(T)

1e-01

3e-01

1e+00

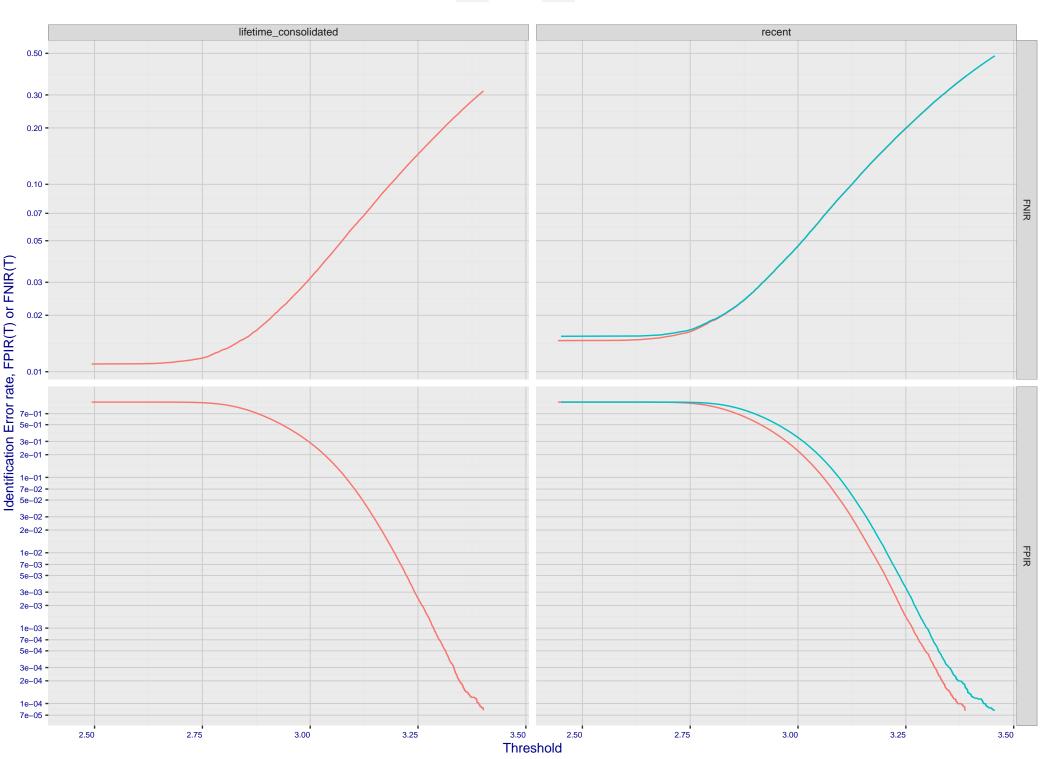
1e-04

3e-04

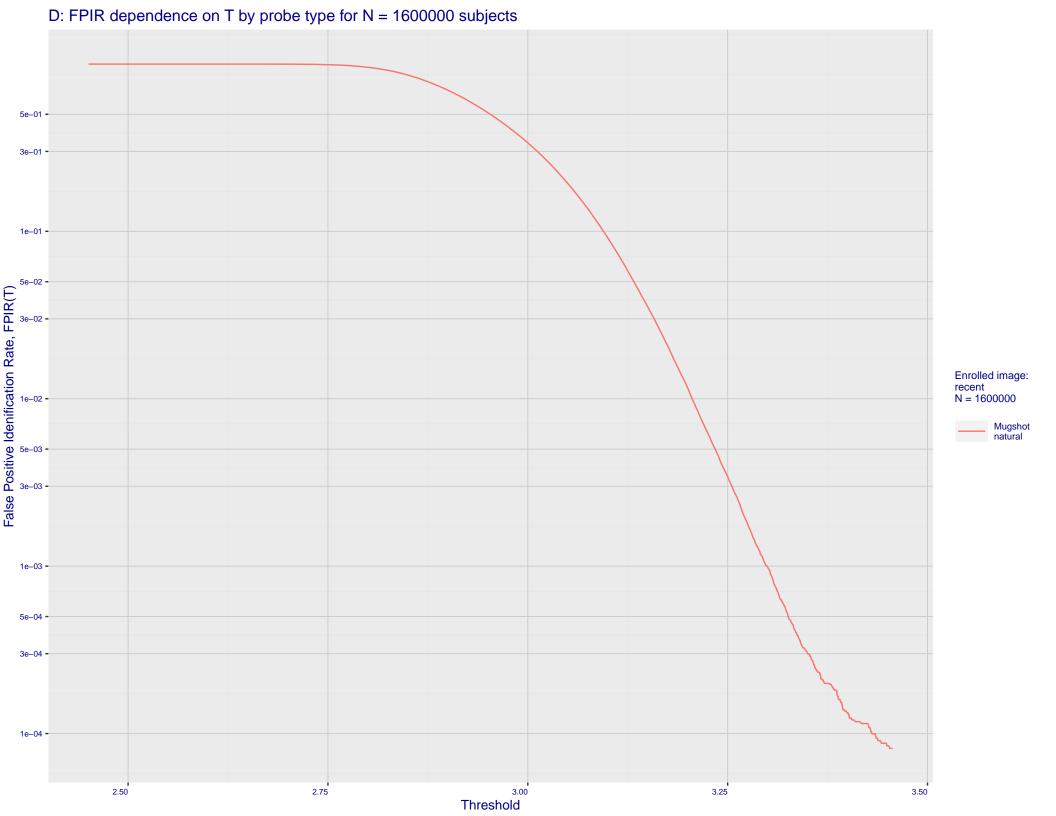
1e-03

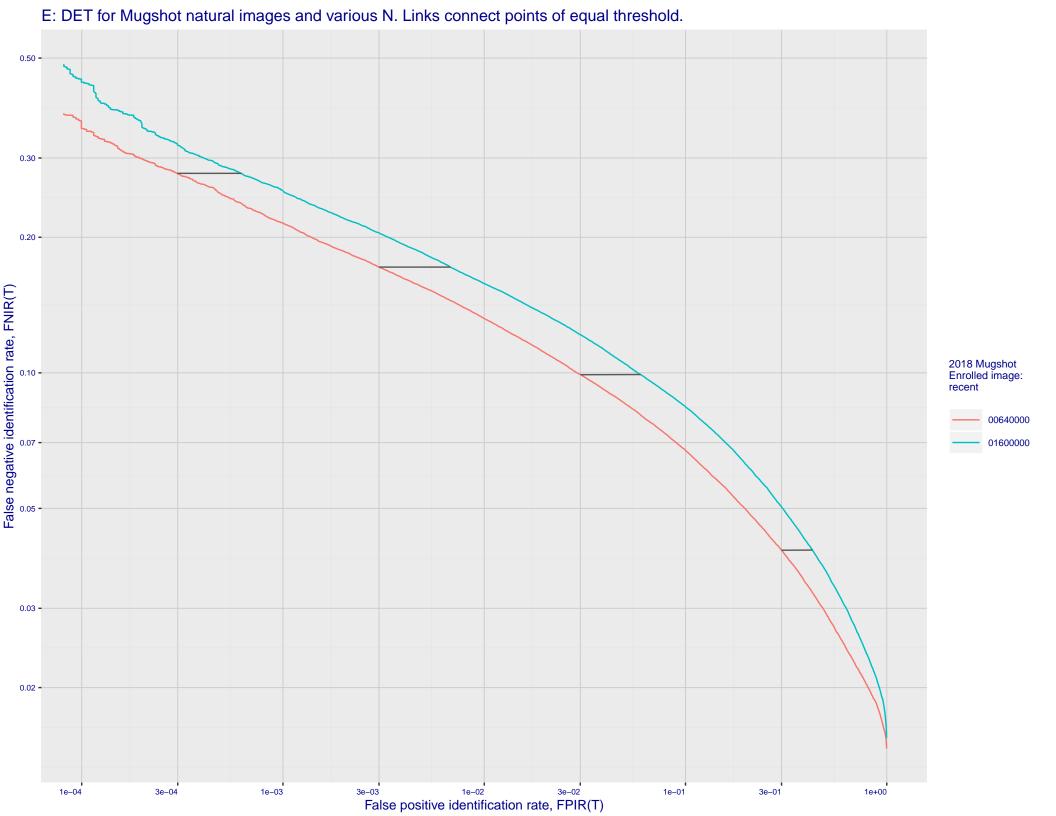
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

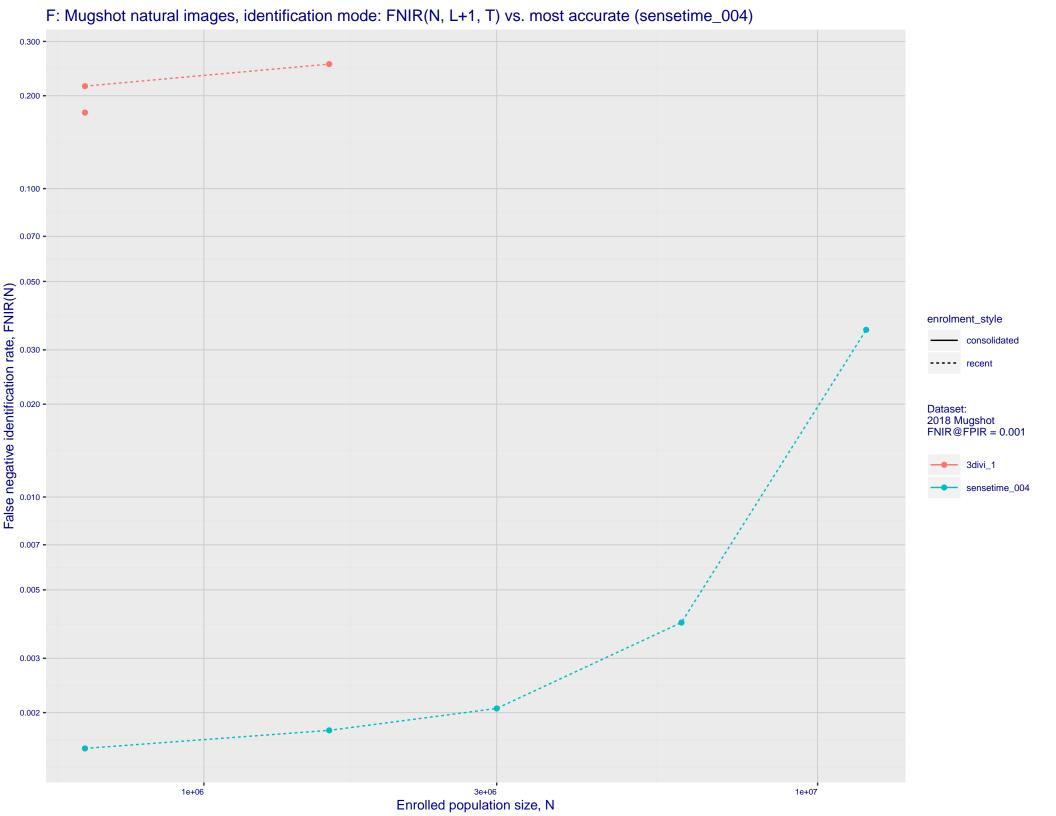




C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 5e+01 3e+01 2e+01 -1e+01 -7e+00 · 5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -Se_0c1 -(L) 3e-01 -2e-01 -(L) 2e-01 -7e-02 -5e-02 -Enrolled images: recent N = 1600000 Mugshot natural 3e-02 **-**2e-02 -1e-02 -7e-03 **-**5e-03 -3e-03 -2e-03 • 1e-03 -7e-04 -5e-04 -3e-04 2e-04 -1e-04 3e-04 1e-01 1e-03 3e-01 False Positive Idenification Rate, FPIR(T)







G: Datasheet

Algorithm: 3divi_1

Developer: 3Divi

Submission Date: 2018_02_15

Template size: 4224 bytes

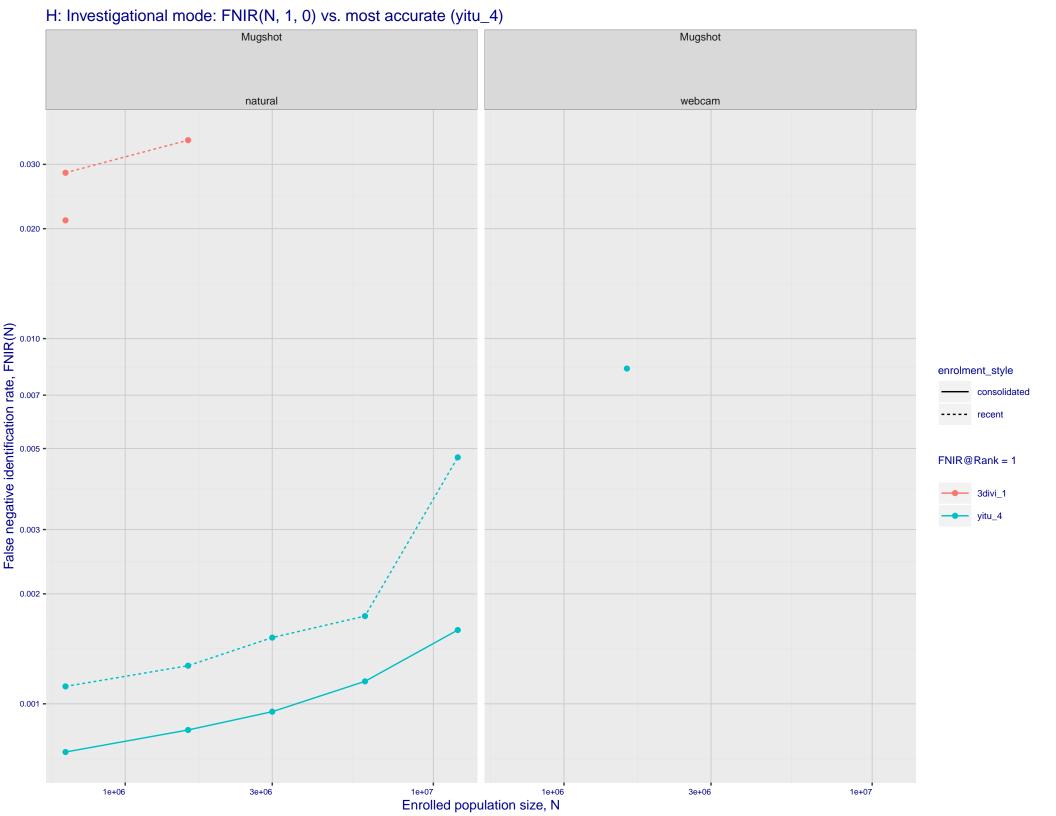
Template time (2.5 percentile): 392 msec

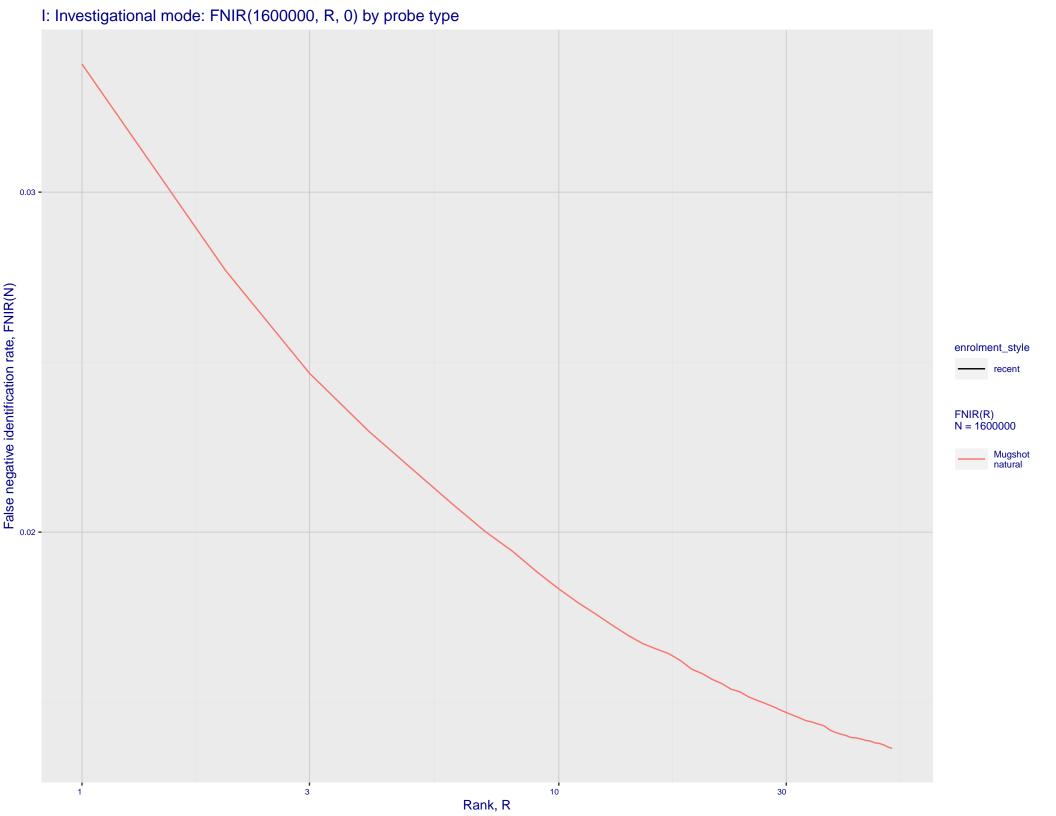
Template time (median): 425 msec

Template time (97.5 percentile): 487 msec

Frontal mugshot investigation rank 170 — FNIR(1600000, 0, 1) = 0.0349 vs. lowest 0.0010 from sensetime_004

Frontal mugshot identification rank 174 -- FNIR(1600000, T, L+1) = 0.2533 vs. lowest 0.0018 from sensetime_004





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 300 200 -30 -20 7e+05 8e+05 Enrolled population size, N, one image per person

Search Duration (milliseconds)