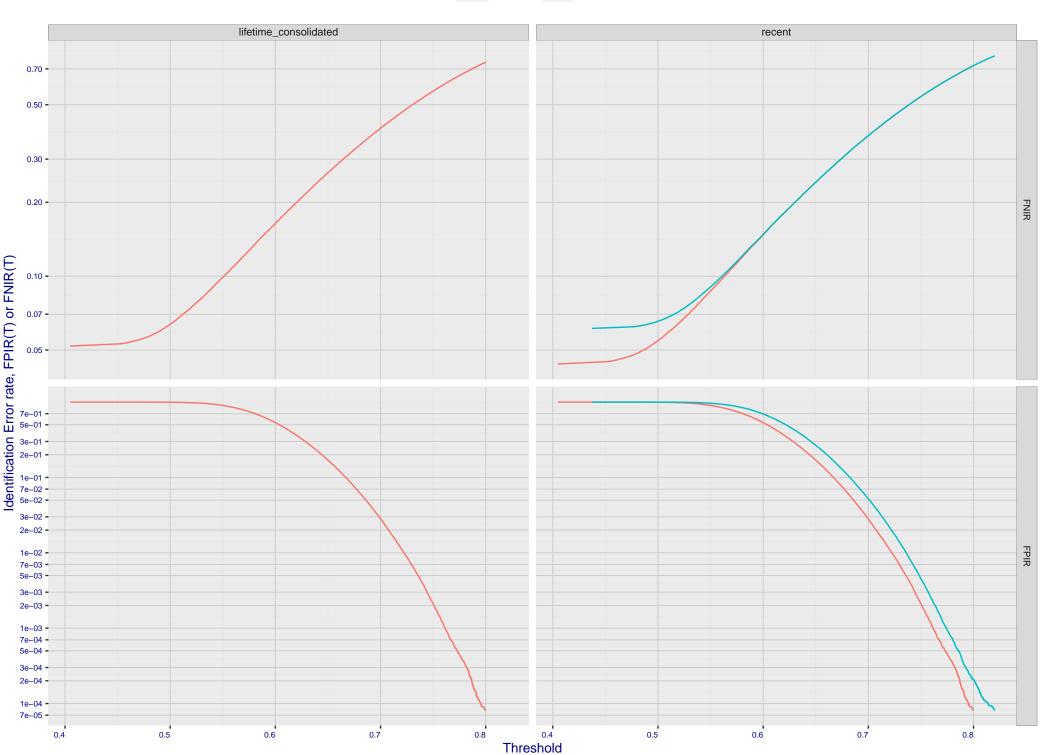
A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals Mugshot natural 0.70 -0.50 -False negative identification rate, FNIR(T) enrolment\_style recent-ONE-MATE 0.10 -0.07 -1e-04 3e-04 1e-03 1e-01 3e-01 1e+00

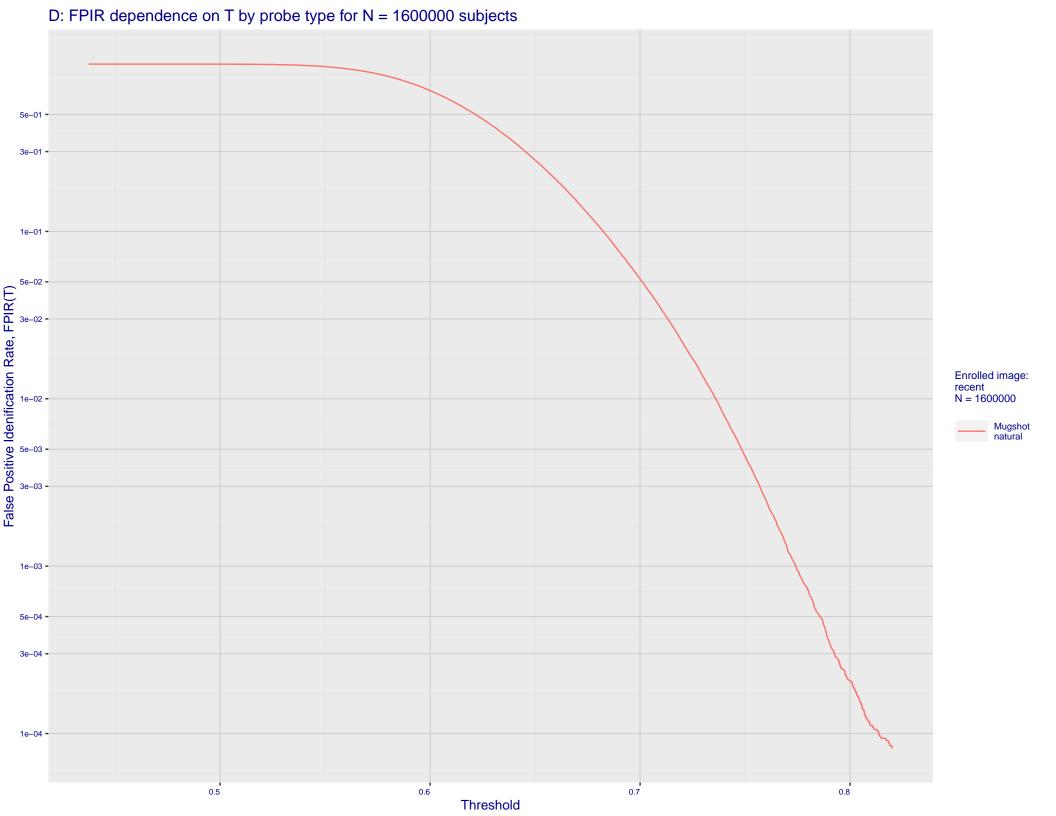
False positive identification rate, FPIR(T)

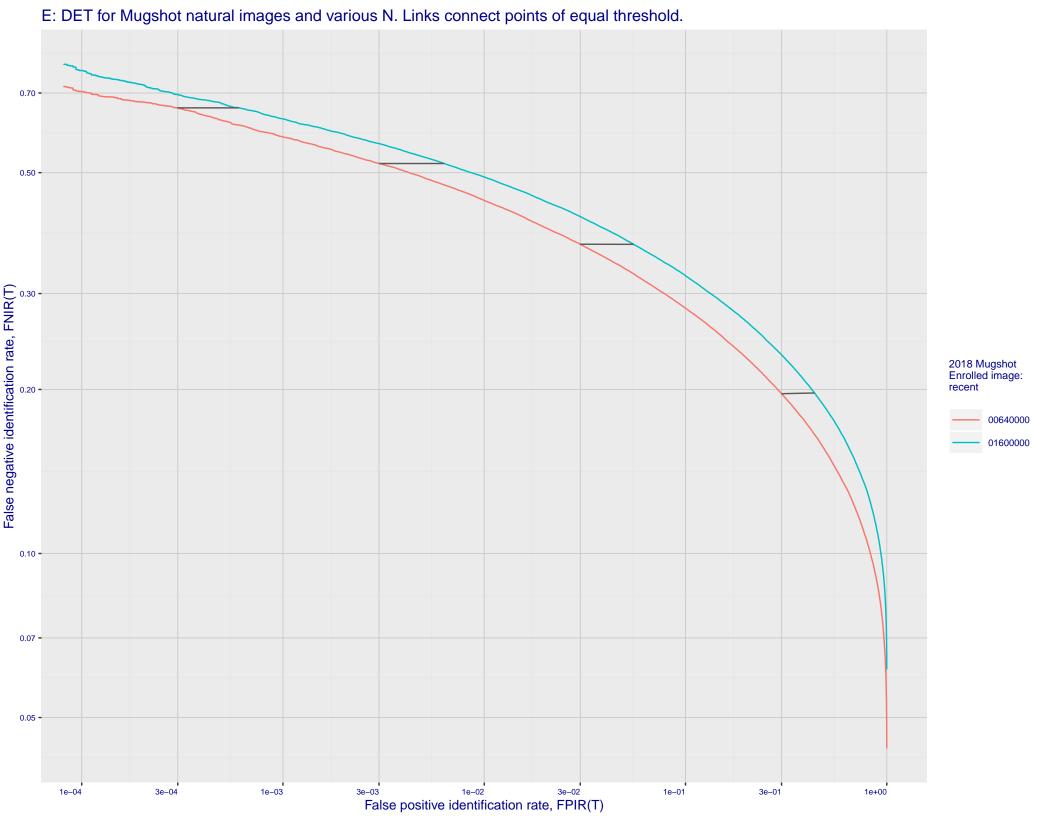
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images

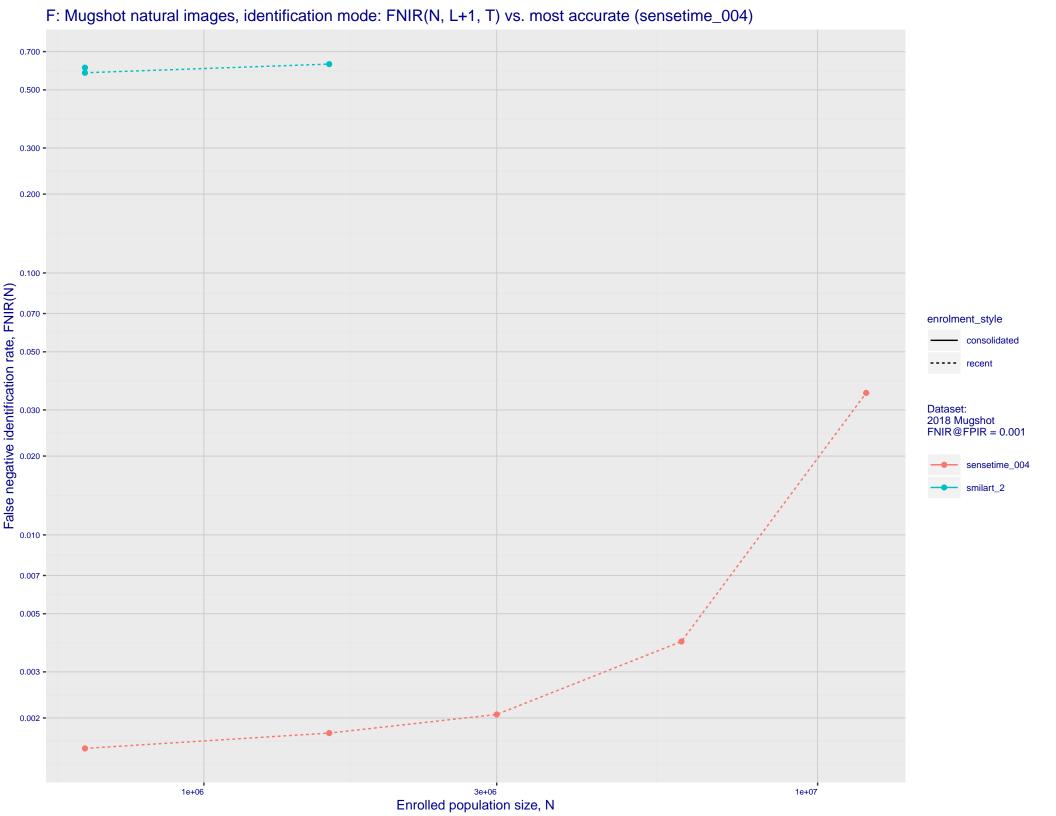




C: FPIR vs. Selectivity for mugshot images, N = 1600000 subjects enrolled with one recent mate 7e+01 5e+01 3e+01 -2e+01 1e+01 -7e+00 -5e+00 -3e+00 -2e+00 -1e+00 -7e-01 -5e-01 -Selectivity, SEL(T) 3e-01 -2e-01 -1e-01 -7e-02 -Enrolled images: recent N = 1600000 Mugshot natural 5e-02 -3e-02 -2e-02 -1e-02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







## G: Datasheet

Algorithm: smilart\_2

Developer: Smilart

Submission Date: 2018\_02\_15

Template size: 1024 bytes

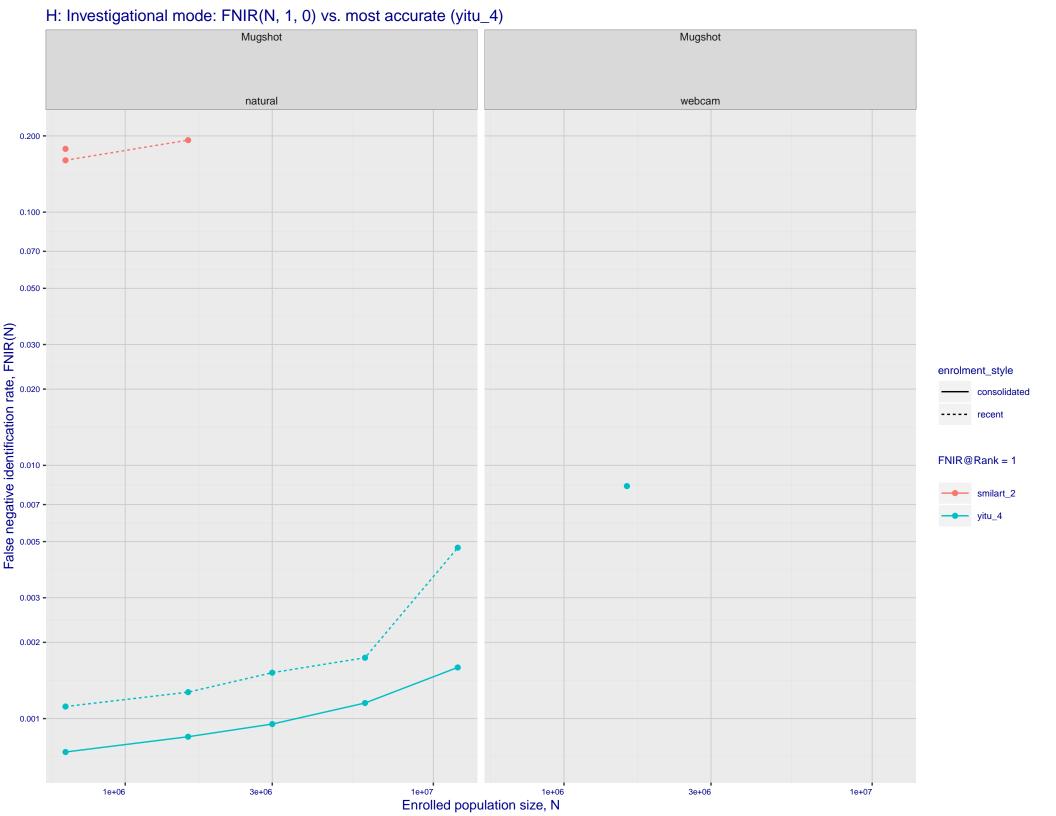
Template time (2.5 percentile): 463 msec

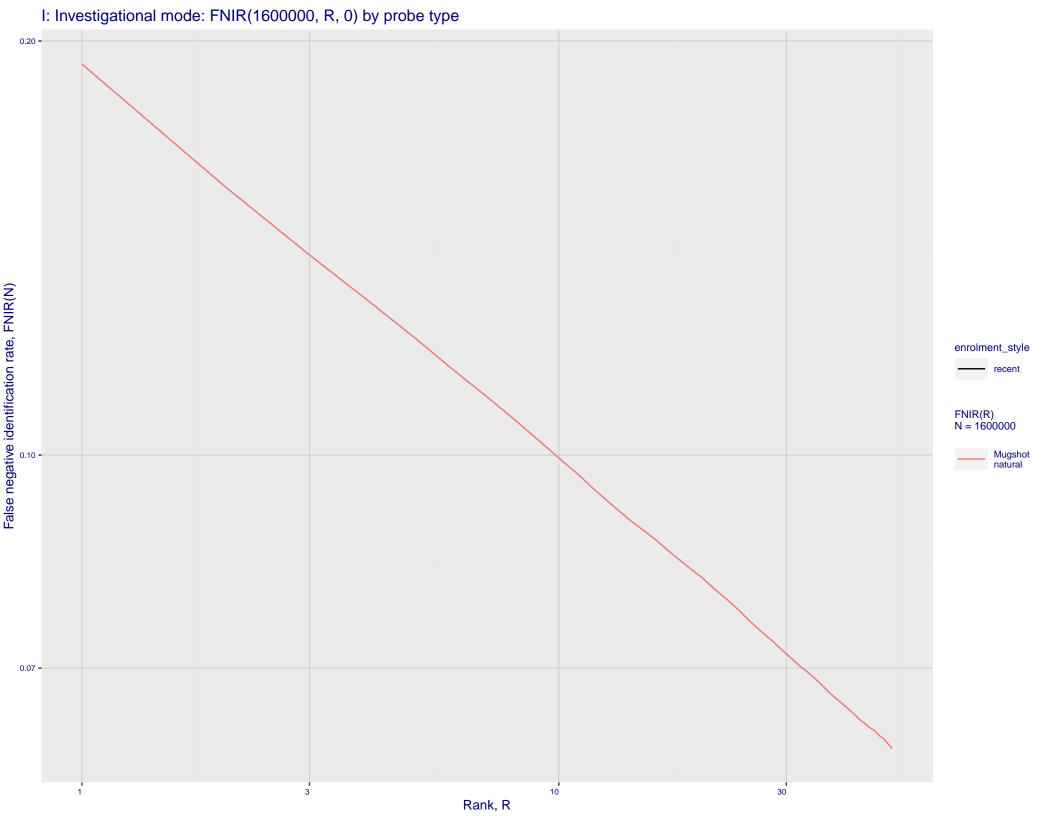
Template time (median): 556 msec

Template time (97.5 percentile): 687 msec

Frontal mugshot investigation rank 223 — FNIR(1600000, 0, 1) = 0.1924 vs. lowest 0.0010 from sensetime\_004

Frontal mugshot identification rank 217 -- FNIR(1600000, T, L+1) = 0.6272 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

