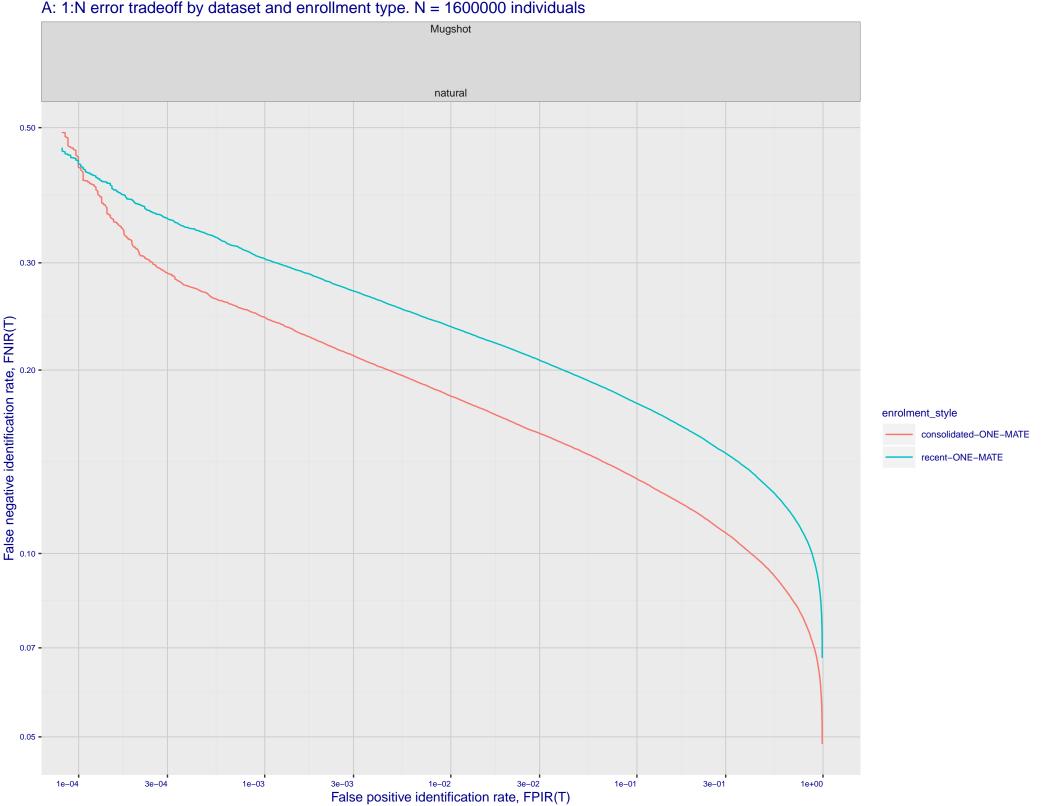
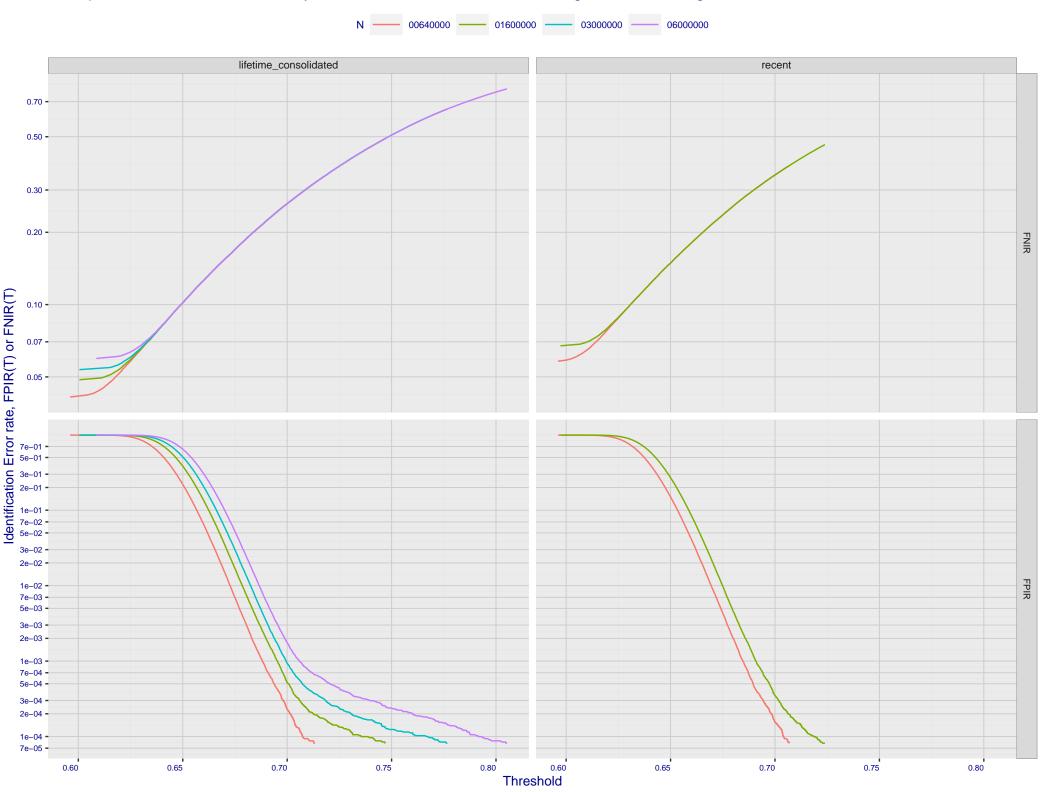
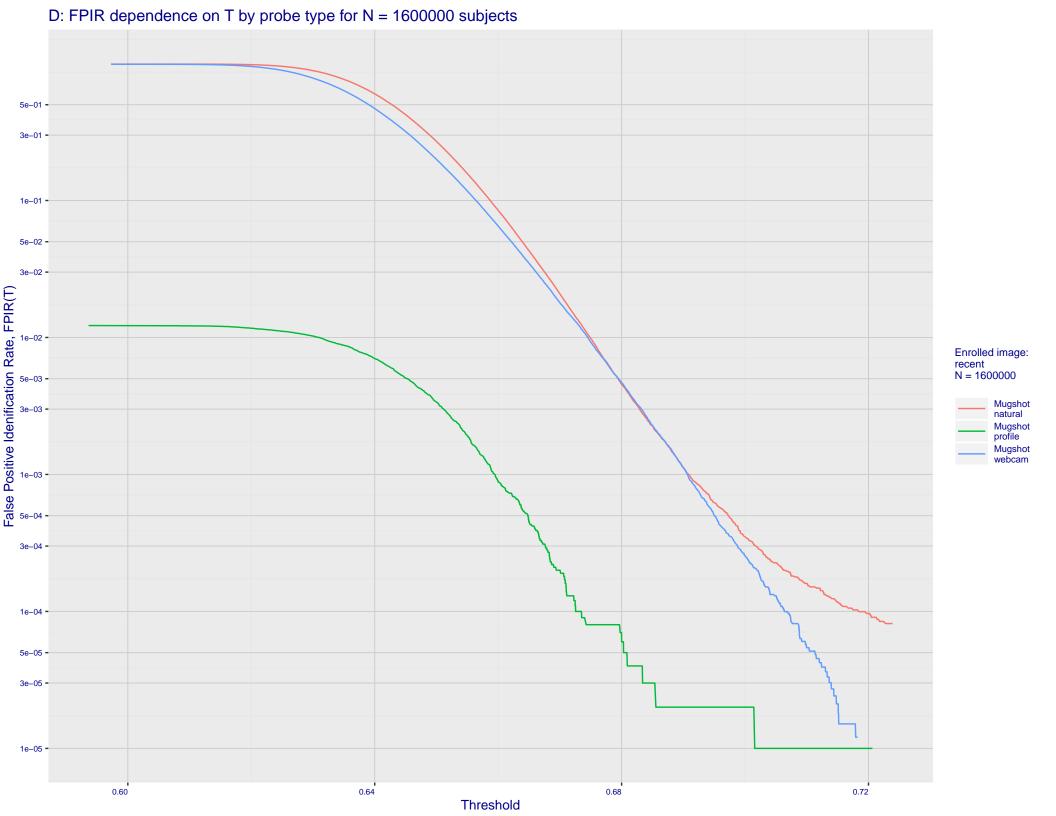
A: 1:N error tradeoff by dataset and enrollment type. N = 1600000 individuals

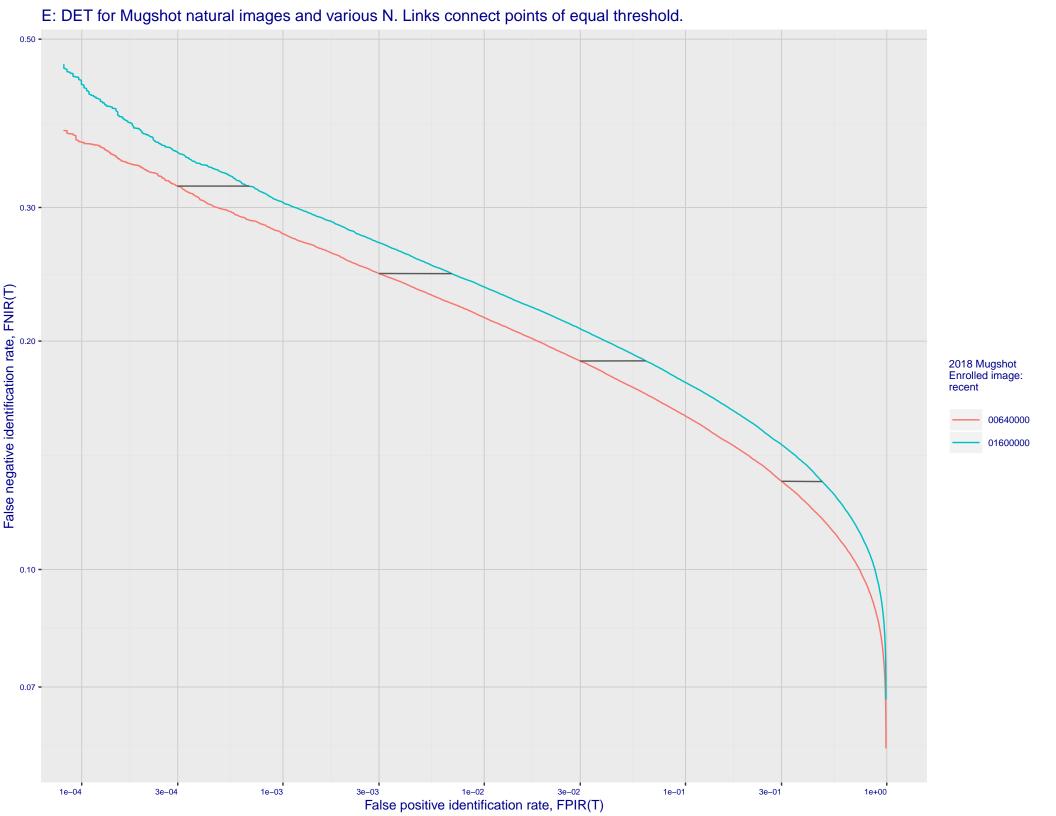


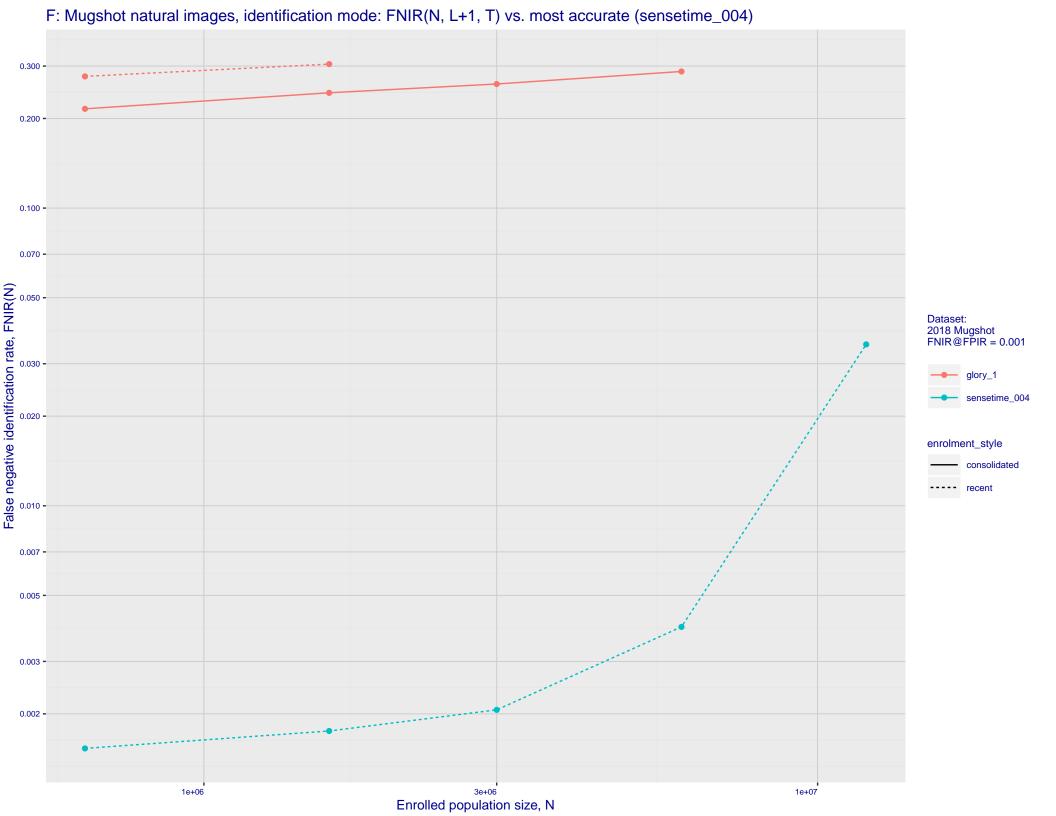
B: Dependence of error rates on T by number enrolled identities, N, for Mugshot natural images



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 5e-02 S 3e-02 S 3e-02 1e-02 7e-03 -Enrolled images: recent N = 1600000 Mugshot natural Mugshot profile Mugshot webcam 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: glory\_1

Developer: Glory Ltd

Submission Date: 2018\_06\_30

Template size: 1726 bytes

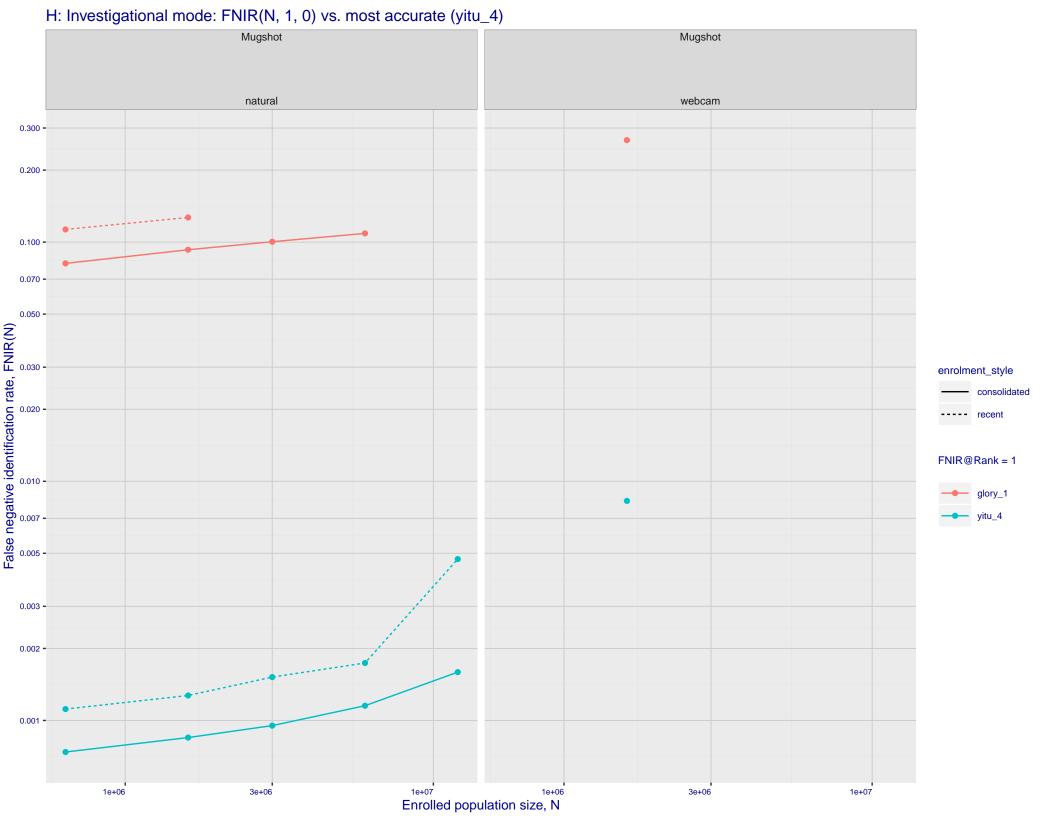
Template time (2.5 percentile): 391 msec

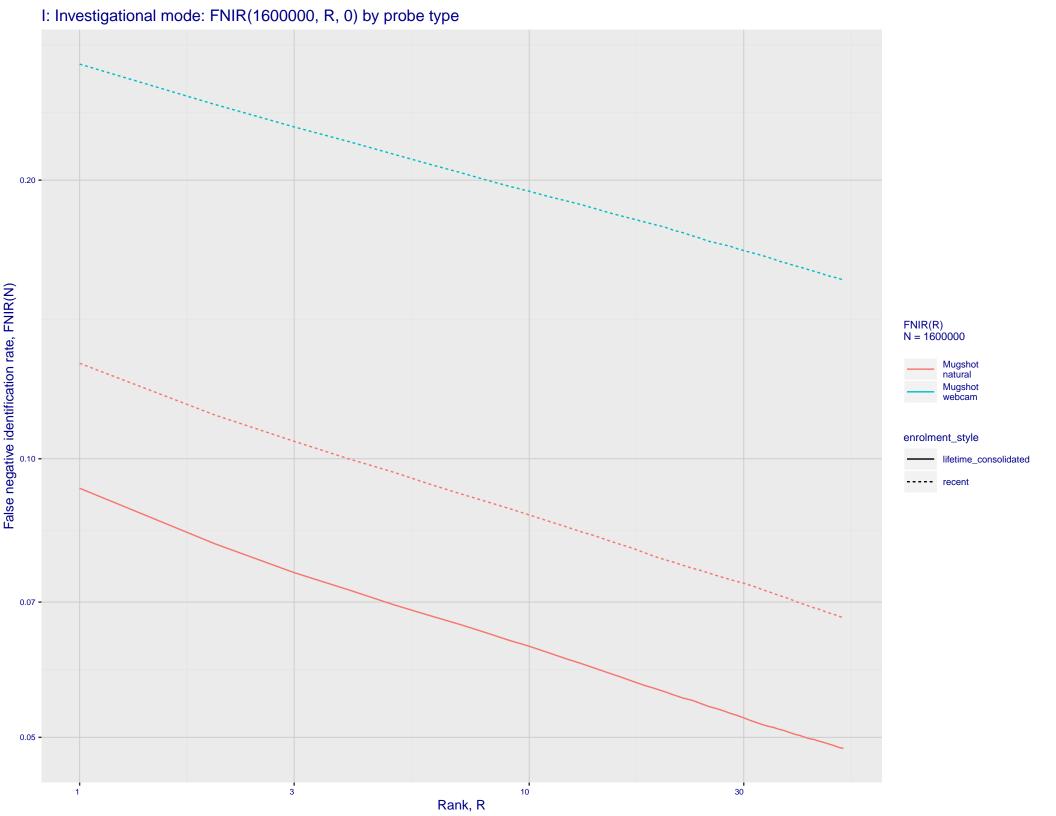
Template time (median): 398 msec

Template time (97.5 percentile): 438 msec

Frontal mugshot investigation rank 210 — FNIR(1600000, 0, 1) = 0.1268 vs. lowest 0.0010 from sensetime\_004 natural investigation rank 186 — FNIR(1600000, 0, 1) = 0.2670 vs. lowest 0.0067 from sensetime\_003 natural investigation rank 360 — FNIR(1600000, 0, 1) = 0.9964 vs. lowest 0.0492 from paravision\_005 natural investigation rank 360 — FNIR(1600000, 0, 1) = 0.9964 vs. lowest 0.0492 from paravision\_005

Frontal mugshot identification rank 183 — FNIR(1600000, T, L+1) = 0.3046 vs. lowest 0.0018 from sensetime\_004 natural identification rank 171 — FNIR(1600000, T, L+1) = 0.5372 vs. lowest 0.0122 from sensetime\_003 natural identification rank 110 — FNIR(1600000, T, L+1) = 0.9967 vs. lowest 0.1020 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 2000 -1000 -700 -500 1e+06

Enrolled population size, N, one image per person

Search Duration (milliseconds)