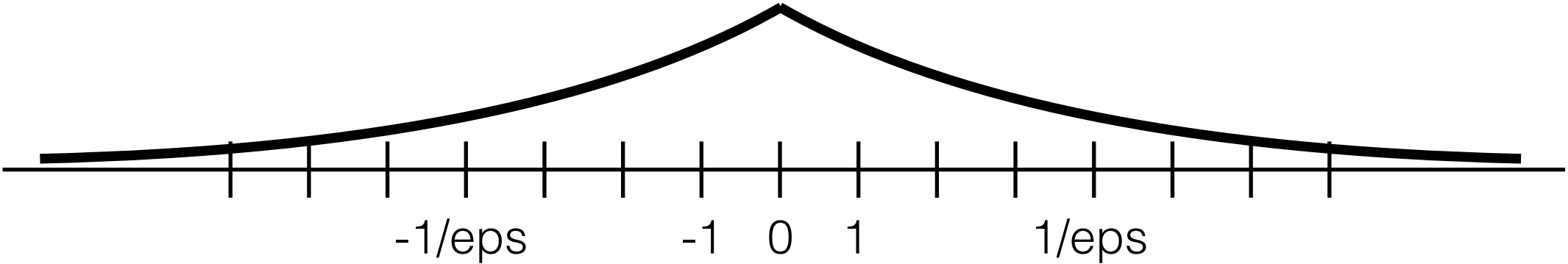
An example: counting

Let M(A): how many records in A voted “badly”

Not differentially private

Differentially private

... plus Laplace(1/eps) noise.


-1/eps
-1
0
1
1/eps

Probability drops by e every 1/eps units.

Very unlikely to be very incorrect.

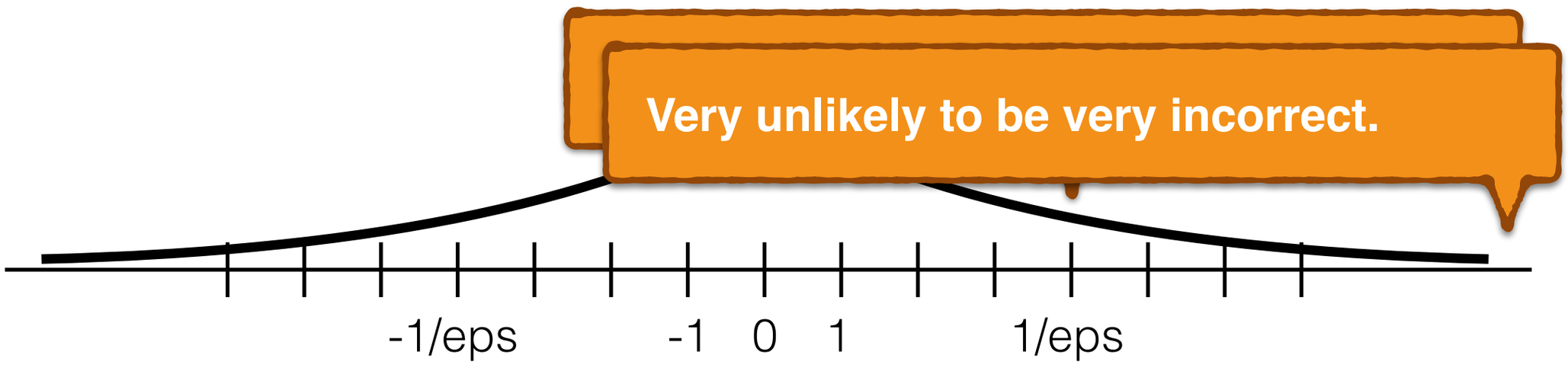
(called the “Laplace mechanism”)

An example: counting

Differentially private

Let M(A): how many records in A voted “badly”

… plus Laplace(1/eps) noise.



(called the “Laplace mechanism”)

An example: choosing

Let M(A): Choose output S with maximizing some fn **happy**(A, S).