- The entropy $H(A)$ measures the uncertainty about the anonymous events:

$$H(A) = -\sum_{a \in \mathcal{A}} p(a) \log p(a)$$

- The conditional entropy $H(A|O)$ measures the uncertainty about A after we know the value of O (after the execution of the protocol).
- The mutual information $I(A;O)$ measures how much uncertainty about A we lose by observing O:

$$I(A;O) = H(A) - H(A|O)$$