Crypto

1 Current Work

A probability ensemble is not a single random variable, but rather a collection or family of random variables. In this definition, X = X(a,n) represents the entire ensemble. Each X(a,n) is an individual random variable within this collection. The indexing works like this:

'a' is from the set 0,1* (meaning all finite binary strings) 'n' is from the set N (natural numbers)

So for each combination of 'a' (a binary string) and 'n' (a natural number), there is a corresponding random variable X(a,n). It's not quite correct to say X = a(n). Instead, X(a,n) represents a specific random variable in the ensemble for particular values of a and n. The ensemble being "infinite" means there are infinitely many such random variables in the collection, as there are infinitely many possible combinations of 'a' and 'n'.''