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An Applications in Computational Biology and Evolution of Hidden Markov Model based on Assumptions of Coding Theory

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Abstract: ***In General, assumptions of knowns or unknowns i. e, observation based on consistency or inconsistency within Channel coding i. e, in some cases, during rate distortion optimization process as mentioned in [2], [3], [1] it states that inconsistency may leads towards extreme state of saturation point within transmitted data due to evolution within channel capacity, moreover assumptions of probability based on possibilities sometimes results in inconsistency that may develop an error in coding distortions which is referred as Loss or Cost function that may lead towards activation of translations within in channel with respective Language encryption. Moreover in Science theory, Hypothetical Assumptions, i. e, beyond the state of Possibility, the accuracy towards understanding the observations of any observer within Assumptions of Hidden Markov Model based on probability factor will define consistency in observations. Finally, we concluded that our approach based on development of channel capacity due to inconsistency within observations and inclusion of loss function due to error in functionality may activate translations which may fall into the section relevant to applications in computational biology.***

Keywords: Hidden Markov Model, Rate Distortion Optimization, Computational Biology

1. Introduction to Applications of Computational Biology

In the fields of Health and Life Sciences classification of respective individual Applications such as Cognitive Science, bio informatics, and mathematical biology is described in aspect of research Practices as qualitative and quantitative analysis. Moreover this concepts towards information science and mathematical computing need to be performed to study the life. The computational and mathematical approaches are deployed in theoretical and experimental problems within biology to comprehend complicated data from the Health and life sciences.

According to the National Institutes of Health (NIH) computational biology and Computational mathematics are deployed for the production in theoretical approaches, use of data analytics and simulation techniques and also in order to do practical research on psychological behaviours such as disorders and for development cases use of computational tools and methods are needed for extending Medical and health data, including those to collect, save, organize, archive, process, or display such data, is known as bio - informatics.

An Hypothesis of Human Metabolism, Case Studies of Hidden Markov Model

There are two categories of metabolism: catabolism and anabolism and firstly, Catabolism is the breakdown of organic matter, and anabolism construct components of respective cells, i. e, components such as proteins and nucleic acids moreover, this functionality of metabolism may sometimes not work properly because it depends on immune system of individual human and technically speaking it will reflect on respective functionality due to producing an error and In some cases, this kind of errors may considered towards need of Medical Translations which translates the understanding of functionality within human metabolism through process of signalling within dedicated domain. Finally, Error in functionality may referred as loss or cost function based on Hidden Markov Model that can understand process based on Subject's daily Routines.

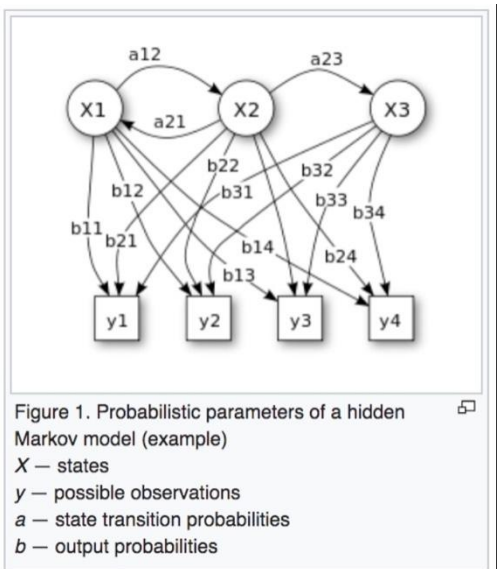

Figure 1. Probabilistic parameters of a hidden Markov model (example)
X — states
y — possible observations
a — state transition probabilities
b — output probabilities

Probabilistic factors of a hidden Markov model (referenced) X - states, y (Cost Functions), observations (a), state transitions probabilities b and output probabilities

Hypothetical Assumptions of Cost or Loss function

The Working Principle of Cost function is based on medical translations which is mostly concerned with habits in daily routine life and moreover functionality balances wake fullness within conscious mind through stimulating brain cells and makes sure to allocate time for Sleep in unconscious state. But some times this working principle

may lead towards dysfunction in brain function functionality in such cases it is referred as Loss function.

Inserting Citations

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