Essential materials for Bayesian Mindsponge Framework analytics

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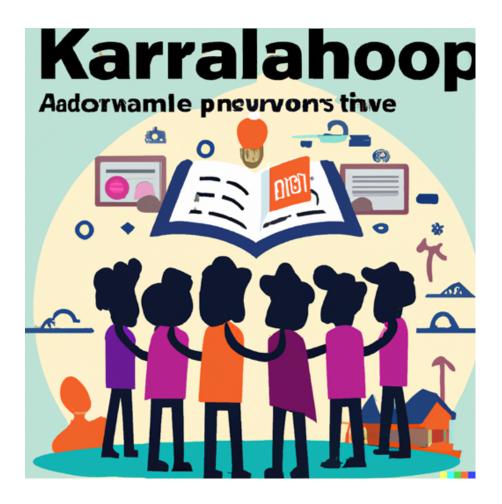Email: aisdl_team@mindsponge.info

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Acknowledging that many members of the SM3D Portal need reference documents related to Bayesian Mindsponge Framework (BMF) analytics to conduct research projects effectively, we present the essential materials and most up-to-date studies employing the method in this post. By summarizing all the publications and preprints associated with BMF analytics, we also aim to help researchers reduce the time and effort for information seeking [1], enhance proactive self-learning [2], and facilitate knowledge exchange and community dialogue through transparency [3,4].

Reference documents are classified into three main categories:

1. Main documents
2. Publications
3. Preprints

As the BMF analytics focuses mainly on humans, the documents in the second and third categories are also organized into four major aspects associated with humans:

1. Human and environment
2. Human and society
3. Human and economics
4. Human health and psychology

Illustration: Sharing knowledge is community power generated by DALL-E

1. Main documents

The following book is an essential document for researchers to understand what BMF analytics is and how BMF analytics can be applied to create innovative research:

- The mindsponge and BMF analytics for innovative thinking in social sciences and humanities [5]

The book provides five primary contents. First, it thoroughly describes the development history of the mindsponge mechanism and BMF analytics (Chapter 1). Second, it explains the mindsponge mechanism under the lens of the information process and how it can be applied to specific topics, like suicide and trust (Chapters 2-4). Third, it equips readers with the necessary knowledge to formulate research ideas, perform mindsponge-based reasoning, conduct Bayesian analysis, write academic papers, and respond to editors and reviewers (Chapters 5-9). Fourth, it presents the Bayesian analysis protocol for the latest version of the bayesvl package (Chapter 10). Fifth, it introduces the capability of the mindsponge mechanism and BMF analytics in theory-making and conceptualizing complex socio-psychological phenomena, such as how a dictator-to-be rises to become a dictator (Chapter 11).

Without owning the book, SM3D members and researchers can still read the open-access method article, which briefly introduces the BMF analytics' important points and applications:

- Introduction to Bayesian Mindsponge Framework analytics: An innovative method for social and psychological research [6]

The precedent Bayesian analysis protocol for the bayesvl package (version 0.8.5) is also freely available in the following method article:

- Bayesian analysis for social data: A step-by-step protocol and interpretation [7]

If SM3D members and researchers want to delve deeper into the foundational philosophy of BMF analytics, specifically the mindsponge mechanism, we suggest referring to the following book:

- Mindsponge Theory [8]

The book presents a new systematic framework for examining the information processing mechanisms that all "minds" (systems) in the biosphere use to interact with the "environments" (other external systems). The framework is established and reinforced throughout the multilevel of "thinking," from basic biochemical reactions to genetic materials, from instincts to advanced cognition. In general, with supportive evidence from natural sciences (especially evolutionary biology and neuroscience), the book is not just a more polished version of the mindsponge mechanism but a new fresh wind for those already used to the concept. A more detailed review of the book can be found here: https://mindsponge.info/posts/129.

2. Publications

This section lists the most up-to-date published works that employ BMF analytics. Most publications are open-access, meaning that SM3D members and other researchers can freely access them.

2.1. Human and environment

- Predictors of support for biodiversity loss countermeasure and bushmeat consumption among Vietnamese urban residents [9]
- Brain drain out of the blue: Pollution-induced migration in Vietnam [10]
- Escaping from air pollution: Exploring the psychological mechanism behind the

emergence of internal migration intention among urban residents [11]
- Household-level strategies to tackle plastic waste pollution in a transitional country [12]
- Improving energy literacy to facilitate energy transition and nurture environmental culture in Vietnam [13]

2.2. Human and society

- Home scholarly culture, book selection reason, and academic performance: Pathways to book reading interest among secondary school students [14]
- The roles of female involvement and risk aversion in open-access publishing patterns in Vietnamese social sciences and humanities [15]
- A gender study of food stress and implications for international students' acculturation [16]

2.3. Human and economics

- Building eco-surplus culture among urban residents as a novel strategy to improve finance for conservation in protected areas [17]
- Mindsponge-based reasoning of households' financial resilience during the COVID-19 crisis [18]

2.4. Human health and psychology

- The psychological mechanism of internet information processing for post-treatment evaluation [19]
- Alice in Suicideland: Exploring the suicidal ideation mechanism through the sense of connectedness and help-seeking behaviors [20]
- A Mindsponge-based investigation into the psycho-religious mechanism behind suicide attacks [21]

3. Preprints

This section lists the most up-to-date preprints that employ BMF analytics.

3.1. Human and environment

- Enterprise's strategies to improve financial capital under climate change scenario –

evidence of the leading country [22]
- Ecomindsponge: A novel perspective on human psychology and behaviors in the ecosystem [23]
- The crucial roles of biodiversity loss belief and perception in urban residents' consumption attitude and behavior towards animal-based products [24]

3.2. Human and society

- Examining the influence of generalized trust on life satisfaction across different education levels and socioeconomic conditions using the Bayesian Mindsponge Framework [25]
- Mindsponge-based investigation into the non-linear effects of threat perception and trust on recycled water acceptance [26]
- Exploring contributors to Vietnamese high school students' digital creativity through the information process perspective [27]

3.3. Human and economics

- Investigation into the rationale of migration intention due to air pollution integrating the Homo Oeconomicus traits [28]
- Exploring factors contributing to creativity performance among entrepreneurs using the Bayesian Mindsponge Framework [29]

3.4. Human health and psychology

- Near-suicide: A mindsponge-based investigation into the psychology of patients with serious illnesses withdrawing from treatment [30]
- Exploring the relationship between mental distress and cognitive dissonance across transnational identities using BMF analytics [31]

In conclusion, we welcome SM3D members and other researchers to contribute opinions, ideas, comments, or feedback to help the community apply, accumulate, and develop more insights and innovative content regarding BMF analytics and mindsponge theory.

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