

Knowledge Management for Competiveness and Performances in Higher Educational Institutes

S.Jeyarajan

**Corresponding Author: S.Jeyarajan, iEd.lk, Sri Lanka, jeyarajan09@yahoo.com*

ABSTRACT

Knowledge Management has been recognised as emerging factor for being competitive among Institutions and Performances in Firms. As such, being recognised as Knowledge rich Institution, Higher Education Institutes have to be recognised Knowledge Management based resources for achieving Competitive advantages. A research was conducted in Knowledge Management at Non-State Higher Educational Institutes of Sri Lanka in fact the Research aim to give good fact into best usage of Knowledge Management as strategic enabler that directs the Higher Educational Institutes toward the successes in Competition and Firm performances. The Research tested results of Foreign Researches, which are published in Emerald Inside likewise Databases whereas the Foreign Researches are conducted as Quantitative Study whereas and present Research is conducted in Qualitative paradigms. Further, the presented Research Method used attributes of Delphi Method to manage uncertainties in Data Collection and popularity about the Knowledge Management in the Sri Lankan sector. Meantime, Dramaturgical method is adopted in data collection to enhance the Data Collection, which is also furthered transcription that is done by Researcher who enhanced himself about the field. Research Method of Present Research is semi-structured Qualitative Method as such result of the transcription is produced in a format of Question and Answer under corresponding Knowledge Management Practices. Consequently, Grounded Theory Development Technique is applied on the Data in intermix discourses of Interpretive, Dialogic and Critical discourses to manage differences and conflicts likewise emergences in Data. Finally, result of the analysis shows faire level agreement in the existences of literature based Knowledge Management Practices and produced corresponding reason behind of the existences. As such, the existences are confirmed. Further, having widened the Foreign Studies, applicability of the Knowledge Management into the Sri Lanka sector is revealed in the Present study, which points out extension of such study into State Higher Educational Institutes, further study for revealing framework for Higher Educational Institute especially to Non-State Higher Educational Institutes, propose to define Knowledge Management for higher Educational Institutes and creation of existence level.

Keywords: *Knowledge Rich Institutes, Factors for ethical Competition and Firm Performance, Management of diversified Data, Succeeding in Knowledge Era.*

INTRODUCTION

Competitiveness and Performances in Higher Educational Institutes based facts of Knowledge Management are revealed in a research study for fulfilling Master of Business Administration. Further, subject of the Research is Knowledge Management, which is included in Semi-Structured Qualitative Method as subject of its questions that the Method used attributes of Delphi Method, and Dramaturgical Method into its Data Collection. Further, Ground Theory Development is used as technique of analysis, which is conducted as intermix discourses. As whole, the research is aimed to test for the existences of Knowledge Management (KM) Practices. As such, the Analysis revealed that KMPs are existing in the Sri Lankan industry at fair level that the KMPs were revealed in

Foreign Studies, which were conducted for benefit of Higher Educational Institutes in fierce Competition, unstable context, and publics' mentality toward Foreign Higher Educational Institutes whereas the Foreign studies used Quantitative Method and Qualitative Method is the method of Present study. In addition to the revealing of the existences, the analysis revealed reason behind of the existences and specific practices of KM Practices of Sri Lankan Non-State Industry. Therefore, the study points out the factor, which is recognised in foreign studies for Competiveness among Higher Educational Institutes and Performances of Institutes have to be recognised in dynamics of Institutes and to be taken the successes to State sector of the Sri Lankan Higher Educational Institute. Further,

framework for Non-State Higher Educational Institute has to be revealed in a study and studies for defining Knowledge Management for Higher Educational Institute (HEI), modifying snowball sampling to strengthen facts in purposeful sampling and enhancing uncertainties in application of semi-structured Qualitative Study through inclusion of attributes of Delphi Method are to be conducted in future research.

Emergences of Information era have contributed importance of Knowledge Management to be succeeding in Competition and Performances in businesses especially in Higher Educational Institutes (Sharimllah D. R. et al., 2009), which practises KM processes as factors for the successes. Meantime, Sharimllah D.R. et al. (2009) provides that management of what is known and what has to be known is Knowledge Management and practices that believed to have additional dimensions of KM are KM Practices. Institution, which award Degree awarding or conducted course for degree is defined as Higher Educational Institutes (UNESCO-IBE, 2010/11).

As factors for Competition and Performances for developing era, KM Practices of HEIs are revealed in studies of (Sharimllah D. R. et al., 2013) and (Jing, 2012). Present study bases the KM Practices from the foreign studies to develop semi-structured questionnaire, which are used as tool for data collection to reveal existences of the KM Practices in Sri Lankan Non-State sector of HEIs. In addition, reason behind of the existences in the Non-State sector is revealed with identification of specific KM Practices of the Sri Lankan industry. Further, the questionnaire are developed within framework, which defined by stages of KM Processes that are defined in (Sharimllah D. R. et al., 2009) as Knowledge creation; Knowledge capture, Knowledge organisation, Knowledge storage, Knowledge dissemination and Knowledge application. . Questions of the questionnaire consumed detail behind the stages of KM processes in its development. As such, data collection instrument is developed within KM.

Data collection is done as Dramaturgical Method, which uses questionnaire as scripts, data collection environment as stage and interviewer and interviewee as actor (Michael, D., M. and Michael, N., 2007). As such data collection becomes drama and is eased the collections in many ways. Scripts are recorded in electronic records and/ or paper records that

the medium of the record is preferred as electronic record whereas some interviewee did not agreed the preference. The records are then transcribed by researcher that the transcription not only enhances Data but also enhances the researcher's industrial knowledge.

Having enhanced the Data and industrial knowledge of Researcher, Grounded Theory Development (GTD) is taken as analysis technique in the domain of inter disciplinary discourse of conduct to produce right reflection of the industry in the result. Strauss A., L.& Corbin J., M., (1998) presents GTD, which has basically two methods called Open Coding, and Axial Coding however selective coding is added to enhance the result out of GTD, which is conducted in intermixed discourse to manage different perspectives of data. Finally, Grounded theories in the field are discovered as agreement/disagreement of existing-published KM Practice, reason behind of the agreement/disagreement and specific Practices of Sri Lankan industry. As such, the results produced competitive facts for the industry and performance to its Institutes. Consequently, Faire level existences of KM Practices is revealed whereas It is needed to define the level of existences. Therefore, the research is publishing such information to this industry and its institutes and is proposing to define What is Non-State Higher Educational Institute and to develop Knowledge Management of Higher Educational Institute espacially to Non-State Higher Educational Institute.

STATE OF THE ART

Knowledge Management (KM) based achievement of factors for competitiveness in Higher Educational industry and performances of Higher Educational Institutes (HEIs) is presented in Jing, (2012), Sharimllah D. R. et al., (2009), and Sharimllah D. R. et al., (2013) in the context of fierce competition, changing environment and in mentality of Foreign Higher Educational Institute is best Institute. Jing (2012) conducted study for revealing striving factors to survive or beat competition in above such environment in China that the study produced a number of reasons behind the challenges for the survival or win. The reasons are further divided into nation specific reasons and common reasons. Further, the nation specific reasons are due to social configuration and government policy and the common reasons are out of factors such as trend and fashion. Nation specific reasons are as follows:

- ability to attract and recruit students,
- faculty recruitment,
- program offering,
- funding source,
- affiliated college with reputed public university,
- decreasing number of students,
- foreign study mentality development into college students,
- lack of substantive government support,
- ambiguity and inconsistency of government policy,
- public perception of low quality of private HEIs,
- fierce competition within private HEIs and from public HEIs,
- New additions to the list due to foreign reputed public university backed HEIs.

Having given the reasons, Jing(2012) gives advantages out of concerning above such factor over Knowledge based activities as follows:

- improving productivity,
- enhancing motivation,
- developing green practices,
- Introducing re-cycling as an economic activity.

In development of generic attributes of KM Practices, Hull (1999) gives Knowledge based reasons to achieve advantages to organisations as follows:

- Managing intellectual property right position set of Practices exist in a company when the company faces those issues of intellectual property rights.
- Management set of Practices exists most likely in all kind of companies.
- Mapping knowledge relationship set of Practices is company specific set.
- Broadly given, Practices exist in the structure of an organisation. These practices exist in organisational dynamics through processes

Sharimllah D. R. et al., (2009) presents comparison of Knowledge Management (KM) Practices of State and Non-State Higher Educational Institutes and gives that management of what is known and what has to be known is Knowledge Management. Rodney, M.and Sandra, M., (1999) adds in their critiques

of Knowledge Management Models and provides basis to define KM as people and learning issues are central to KM out of Quintas, P. et al., (1997) cited in Rodney, M.and Sandra, M., (1999). Further, the study of Rodney, M.and Sandra, M., (1999) says KM as multidisciplinary due to diversified people involvement in it. Druker, (1995) specifies KM as economic resource out of confusion between Intellectual Capital(IC) and KM. As such, KM becomes capitalised term, which leads to IC term. Hence, KM can be taken as intangible assets likewise employee skills, information, patents, copy rights, brands, research and development (R&D), licensing opportunities, innovative use of assets such as database and etc. In addition, KM explored out of its activities in Brooking, (1997) as strategy and tactics to manage ICs and Human-centered assets that leads KM as leveraging IC or as recognising or rediscovering assets that are not in full potential, especially not in employees.

Rodney and Sandra (1999) also gives that KM creates, captures, shares and leverages knowledge needed for organisational success. Accordingly, KM Practices (KMPs) explicitly performs knowledge creating activity and knowledge storage activity for organisational success. Hence, KMPs emerged as knowledge-based activities for organisational success. In addition, many activities of organisation are KMPs.

KMP is defined in Hull, (1999) as practices that explicitly performs functions of KM or believe to have additional dimension to KM, which is continued as exploration of the KMPs into different sets such as management set, 'Mapping' knowledge relationship set, human resource management set, managing intellectual property position set, and information technology management set. In addition, Hull, (1999) specially discusses reason for the existence of KMPs in organisation as managing intellectual property right in position set of KMPs exist in a company when the company faces those issues of intellectual property rights. Similarly, management set of KMP exists most likely in all kind of companies. Mapping knowledge relationship set of KMPs is company specific set. Broadly speaking, KMPs is practices that exist in the structure of an organisation. These practices exist in organisational dynamics through processes. Further, Hull, (1999) presents that KMPs transforms information and intellectual assets into persisting value. As such, KMPs capture

and/or acquaint, retain, organise, disseminate and reuse knowledge, and finally responsible for creating new knowledge for successes of organisation. As such, Hull, (1999) found that half of KMPs in organisations are informal.

UNESCO-IBE, (2010/11) defines HEIs as degree awarding institutes in its study for world data on education. Further about HEIs explored in the world data on education as degree is result of undergraduate or postgraduate or certificate study. Service quality in HEIs in the context of British Higher Education is conducted in Hill (1995) that provides different considerations of service quality in Higher Education as consideration of important concepts such as expectations, perceived service performance, unable to confirm, and the relationship between consumer satisfaction and perceived service quality.

It is public that service, being impalpable and cannot grasp mentally, differs from good. The differentiation leads following specifications of service: the consumers are part of production and delivery process. Service quality is further divided in Hill (95) as technical quality and functional quality. Hill (95) defines that Technical service quality as outcome of the interaction between service provider and consumer out of (Gronroos, 1984) cited in (Hill, 1995) and Functional quality as how consumers get the technical quality. In addition, Hill (95) point out that service quality is adopting what consumer expects and is adequate service. Mohamad N. A. S. et al, (2004) presents management of lesson learnt in HEI and gives KMPs in HEI as socialising tacit knowledge, internalising explicit knowledge, externalising tacit knowledge, and disseminating the combination of tacit and explicit knowledge. Further, KMPs of HEIs are given out of comparison of KMPs of public and private HEIs in Sharimllah et al.(2009) as usual KMPs of HEIs are knowledge generation, knowledge codification, and knowledge transfer. In addition, Sharimllah et al., (2009) primed KMPs of HEIs as generating knowledge, codifying knowledge and transferring knowledge. Further, Sharimllah et al., (2009) specify that kinds of knowledge are transferred in HEIs and Knowledge is codifying knowledge through various ways. Similarly, number of mediums is in use of transferring knowledge of HEIs. In addition, Non-State HEIs of third world countries are implemented key practices of knowledge transfer. In addition, it is pointed out in Sharimllah, et al., (2013) & Sharimllah et al.,

(2009) that Non-State HEIs do not adopt the other usual practices. As whole of implementing the KM Practices in HEIs, Sharimllah et al., (2009) give KM based structure to implement the KM Practices, which is named as KM Processes. Stages of the KM Processes are as follows:

- Knowledge creation;
- Knowledge capture;
- Knowledge organisation;
- Knowledge storage;
- Knowledge dissemination;
- Knowledge application.

METHOD OF THE RESEARCH

Method of discovering existences of Knowledge Management Practice is Qualitative Method. The Research has initially considered Quantitative and Qualitative Methods. However, Sujatha, N. et al., 2012 shows only 29 Non-State Higher Educational Institutes (HEIs) in Sri Lanka. As such, the Research searches for collecting contacts of the Non-State HEIs and found only 17 Non-State HEIs in Sri Lankan. The lesser the possibility for source of Data collection led the choice of the Research Method as Qualitative Method. In addition, the Research searched for evidences in regards of Research subject's exposal into the field and could not find such evidences in literature, which led the Research to select attributes of Delphi Method into the Research Method. As such, Method of the Research is Delphi Method mixed Qualitative Method.

It is public that Qualitative Method has basically two paradigms, which are Structured Qualitative Method and Semi-Structured Qualitative Method whereas the lesser the exposal of subject of the research in the field has led the choice of the Research Method as Semi-Structure Qualitative Method. Usally, the Semi-Structure Qualitative Method bases questionnaire. Further, Two types of questionnaires are in use for the Semi-Structure Qualitative Method that the types are Open ended and Close ended types of questions. Pilot study is conducted to find well suited type of the questions for collecting Data and found applicability of the Close ended type to overcome the unawareness of the subject into the field. As such, Close ended type of Semi Structure Qualitative Method is chosen as Research Method.

When presented feasibility study on the Delphi method to determine its effectiveness for incorporating in graduate study, (Gregory, J.S.& et al., 2007) states that Delphi method is a iterative method, which range from iteration one to iteration six. Further, iterative processes are to collect facts, to obtain confirmation from participants of confined facts out of the collection, as well as to explore the confirmed facts. As such, the Delphi method becomes a research instrument to deal with incomplete knowledge in the field. Several facts affect the number of the iterations, which depends facts such as data collection and aim of the research. In addition, deeper the data collection at initial phase controls number of iterations and research for testing something kind of things also controls number of iterations. Further, suitability of the Delphi Method to deal with incomplete Knowledge also confirmed in the study of Adler, and Ziglio (1996) and Delberg, A. Van De Ven, A. and Gustafson, D., H., (1975) cited in Gregory, et al. (2007). Czinkota, and Tonkainen (1997) cited in Gregory, et al., (2007) adds that Delphi Method has been used to investigate what does not exist. As such, Delphi Method is adopted into the research method to deal with incomplete knowledge about the subject of the research in the field and discover what does not exist. As such, Research Method is conducted as iterations of Delphi Methods.

DATA COLLECTION AND ANALYSIS

Data are collected based on framework developed under Knowledge Management (KM) Practices. The framework concerned rounds of Delphi Method and its role as script for Dramaturgical Method. That is KM Practices and believed scenarios of Non-State Higher Educational Institutes (HEIs) of Sri Lanka are incorporated in Semi-Structured Questionnaires. Having sketched Questionnaires for different rounds of Delphi Method, Initial round of the method is conducted individually through interacting participants for Data Collection, Transcription and Analysis.

The Data Collection is conducted into two different groups of sampling. The Sampling groups are purposeful sampling and modified

snowball sampling, transcription is done by researcher and Analysis is conducted as Grounded Theory Development (GTD).

Questionnaire is developed to Semi-Structured Qualitative method that the questions base KM Practices, which are collected out of literature (Jing, 2012), (Sharimllah D. R. et al., 2009) and (Sharimllah D. R. et al., 2013) and adopts different scenarios of Non-State HEIs of Sri Lanka that scenarios are collected out of Researcher's experience at Non-State HEIs of Sri Lankan and advertisement and articles found in public news paper in the periods of 2012 and 2013. Sources are initially collected into purposeful sampling group according to sampling strategy. Supervisor of the research was asked to select the initial sample to be interviewed. As such, interviews for members of purposeful sampling is held whereas having transcript and analysis data, relationship, which are detected between the collected data and the samples to be interviewed, have made the interview for data collection to be conducted to the related samples in a possible-immediate manner that the samples were selected to the modified snowball sampling group. As such, Data are collected through Dramaturgical Method that stages the Data collection as Drama where interviewee and interviewer are treated as actors, questionnaire is taken as script and environment is taken as stages (Michael, D., M. and Michael, N., 2007) and consequently, transcribed as question and answer. Those 28 question and answer sets for each representative to Non-State HEIs of Sri Lanka are immediately analysed using GTD technique, which are in use for deriving theory (Strauss A., L.& Corbin J., M., 1998).

The theory development has basically two sages called Open and Axial Coding however Selective Coding is adopted into GTD to bring the integration in the analysis. As such, the GTD methods are conducted these Coding simultaneously. Open Coding categorises phrases into different chunks that is named in the process as Labels. The process of separating Labels is illustrated in Figure 1 where Labels are marked in square brackets. In addition, the separation is framed within the KM Practices of the Question and Answer.

<p>Interviewer: Do you expose your students to industry? Interviewee: yes, this is to [give experience] and to [participate in related activities].</p>

Figure1. Open Coding

Identified Labels of each KM practices are collected into frameworks after tagged the labels

to one of its type: Category or Sub Category or Property.

Knowledge Management for Competiveness and Performances in Higher Educational Institutes

One of the frameworks is illustrated at Figure II. The collection process is called Axial Coding.

Framework description is as follows. Knowledge creation is the KM Process stage of the KM Practice: 'Preparing report once a year from R&D on future market value of courses'. Organising stage is the stage of the development. 'No' is used as identifier of the concept. Column 'Agreement/relevant to' is

marked either the agreement of the concept to the KM Practice or relevant of the concept to the other concept in the framework.

Identified Labels are listed under the column 'Concept'. Column 'Type' marks type of the Concept.

As such, Frameworks for each KM Practices are developed and filled accordingly out of data

Knowledge creation: Preparing report once a year from R&D on future market value of courses.			
Organising stage			
No	Agreement/ relevant to	Concept	Type
1	yes	keep track of the demand of the course	category
18	1	Equitability of the course	Property
25	no	Always from government budget plan	Category
27	1	Facilitate Industrial Information	Subcategory

Figure 2. capturing concepts

• fill differences
• facilitate our customer
• cover short comings
•
•
• manage the differences
• prepare ourselves
• develop curriculum
• produce trends
• direct programs
• fill differences
• facilitate our customer
• cover short comings
•
•
• manage the differences
• prepare ourselves
• develop curriculum
• produce trends
• direct programs

Figure 3. Phrases contribute theory development

KM Practice's existences are confirmed at the Sri Lankan industry from facts at second column of above such frameworks.

Further, grounded theory development is initiated out of the facts in columns 3 and 4, which give reason behind of the existences.

The development takes the analysis from Axial Coding to Selective Coding where the concepts are merged with the help of corresponding Type for example Concepts correspond to index 1, 18 and 27 are merged together based on its Type and produced phrase as 'to enhance equitability of the courses'.

As such, phrases are developed out of framework and listed as illustration in Figure 3. As such, Selecting Coding is activated to develop the Grounded theory through merging phrases with help of one or more central phrase/phrases.

Three types of central phrase/phrases are found in the development that the types are one phrase emerged as central phrase, two phrases are merged to become central phrase and more than one phrases become central phrases, which grouped the phrases to develop grounded theories based on individual central category that the grounded theories are then treated as phrases similar to phrases in Figure 3.

Framework of a grounded theory development is illustrated in Figure 4.

Knowledge creation: Preparing market research report once a year on customer based R&D.		
Facture stage		
No.	Dimension	Label
all	expectation	Account up to date affordability in courses
Dimension	Range	
	From	To
Expectation	Students'	Industrial
Developed grounded theory: Account stake holders' up to date affordability in courses		

Figure 4. Identifying theory out of one Label and One Dimension

Facture stage framework and the grounded theory development are follows. First table of the framework is headed with the Stage of KM Process and KM Practice. Three columns are collecting identifier of identified label at column 'Label', which is explain with its dimension that is collected under the column 'Dimension'. Below the table of the framework is used describe further the dimension where the column 'Dimension' list the dimension and the column 'Range' is used to define the range of the dimension, which is defined under the column 'from and column 'to'. Finally, the Grounded theory is revealed though combining and label accordingly.

CONCLUSION AND FUTURE WORKS

Facts for Competition and Performances of Non-Sate Higher Educational Institutes (HEIs) are developed out of Knowledge Management, which shows tremendous facts to be recognised or adopted to develop healthy Competition among the HEIs and Performances of the HEIs, which bring economic and social advantages. The facts are such as proposal for appointing Chief Knowledge Officer, participating nation development to dealing with budget proposal of the country and developing Non-State HEIs as full-fledged Institute that contributes its customers as well its nation likewise State HEIs.

Having identified above such KM base initiates, the research is identified future work for developing KM based Framework for Non-State HEIs, defining KM for HEIs especially for Non-State HEIs and similarly, KM model for HEIs in addition to its struggles in identifying Knowledge Management based level of existences of KM Practices to define level of existences, stable modification of snowball

Sampling technique, which strengths corresponding purposeful sampling technique and best usage of Delphi Method in semi-structured qualitative method. Finally, the work recommends best usage of recognition of KM

for Competitive advantages and Performances in HEIs.

REFERENCES

- [1] Adler, M and Ziglio, E., 1996. *Gazing into the oracle: The Delphi Method and its application to soical policy and public health*. London: Jessica Kingsley.
- [2] Delberg, A. Van De Ven, A. and Gustafson, D., H., 1975. *Group technique for program planning: Guide to nominal group and Delphi processes*. Glenview, USA: Scott, Fresman and Company.
- [3] Gregory, J.S.& et al., 2007. The Delphi Method for Graduate Research. *Journal of Information Technology Education*, Volume 6, pp. 1-21.
- [4] Gronroos, C., 1984. Service Quality model and its marketing implecation. *European journal of Marketing*, 18(4), pp. 36-44.
- [5] Hull, R., 1999. Tracking of Knowledge Management Practices. *Measuring Business Excellences*, 3(3), pp. 48-55.
- [6] Jing, L., 2012. Striving for survival and success: Chinese private higher education in twenty-first Century. *On the Horizon*, 20(4), pp. 274-283.
- [7] M.Hill, F., 1995. Managing service quality in higher education: role of the student as primary consumer. *Quality assurance in Education*, 3(3), pp. 10-21.
- [8] Michael, D., M. and Michael, N., 2007. The qualitative interview in IS research: Examining the craft. *Science Direct-Information and Organisation*, 17(1), pp. 2-26.
- [9] Mohamad N. A. S.et al, 2004. Knowledge Management(KM) System for representing lesson learnt system for communities of practice of institution of higher learning. *Malaysian Journal of Computer Science*, 06, 17(01), pp. 1-12.
- [10] Quintas, P. et al., 1997. Knowledge Management: a Strategic Adgenda. *Journal of Long Range Planning*, 30(3), pp. 385-391.
- [11] Rodney, M.and Sandra, M., 1999. A critical review of knowledge management model. *The learning organisation*, 6(3), pp. 91-100.

- [12] Sharimllah D. R. et al., 2009. The practice of knowledge management processes: A comparative study of public and private higher education institutions in Malaysia. *VINE: The journal of information and knowledge management systems*, 39(3), pp. 203 - 222.
- [13] Sharimllah D. R. et al., 2013. Knowledge Management Practices and Strategic Enablers in Public Universities: A Gap Analysis. *Campus-Wide Information Systems*, 02, 30(2), pp. 1-25.
- [14] Strauss A., L.& Corbin J., M., 1998. *Basics of Qualitative Research : Techniques and Procedures for Developing Grounded Theory*. 2nd Edition ed. New Delhi: Sage Publication Inc..
- [15] Sujatha, N. et al., 2012. *Lirneasia.net*. [Online] Available at: http://lirneasia.net/wp-content/uploads/2012/06/HE-HEI_Survey2012June27_PPT.pdf [Accessed 03 10 2013].
- [16] UNESCO-IBE, 2010/11. *World Data on Education*. 7th Edition ed. s.l.:UNESCO.

Citation: S.Jeyarajan., " Knowledge Management for Competiveness and Performances in Higher Educational Institutes", *International Journal of Research Studies in Science, Engineering and Technology*, vol. 5, no. 12, pp. 1-8, 2018.

Copyright: © 2018 S.Jeyarajan., This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.