

Linguistic Variation Among Pakistani Internet Blogs: A Multidimensional Analysis

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Abstract

Pakistani English, being a non-native independent variety, has its registers that demonstrate linguistic variation at all levels. With the dawn of digital technology and the internet, new Internet registers, such as E-mails, Instant Messaging, Blogs, Tweets, and Facebook comments, emerged swiftly. Internet blogs are one of the text-based varieties of Computer-mediated discourse (CMD) and the most popular form of written internet registers. The principal aim of this research paper was to discover linguistic variation among Pakistani Internet blogs using Multidimensional (MD) methodology, initiated by Biber (1988). A specialized corpus of Pakistani internet blogs, having 469,837 words, was designed and disseminated into 11 sub-categories. The corpus tagged by Biber Tagger at Northern Arizona University, USA calculated 154 linguistic features. The mean values of all the sub-categories on five dimensions were compared to discover linguistic and situational variances among Pakistani internet blogs. Two-factor ANOVA was conducted to discover noteworthy statistical linguistic disparity among sub-registers of Pakistani internet blogs. The results of the study exposed significant linguistic and situational differences on five dimensions among different sub-categories of blogs. All the blog categories have revealed statistically significant linguistic differences on D1 and D4. The language of blogs has been observed as non-narrative, explicit, and abstract on D2, D3, and D5 respectively. The research will be significant for the future diachronic study of internet registers and Pakistani English. The corpus of blogs will be productive for computational linguists and researchers for new MD analysis, genre analysis, and critical discourse analysis. The detailed understanding of linguistic features of the language of blogs will help the second language teachers and students to improve their vocabulary, grammar, writing skills, and cognitive abilities.

Keywords: blogs, computer-mediated discourse (CMD), multidimensional (MD) analysis, Pakistani English, register variation

1. Introduction

Pakistani English is a non-native variety, and it has distinctive spoken and written registers with systematized variation at all linguistic levels. Since the last decade of the 20th

century, Pakistani researchers had been trying to discover the distinctive linguistic features of Pakistani English by comparing it with British and American English. English-speaking aristocracy and dominant English mass media have also evolved the identity of Pakistani English (Khan, 2012). In the twentieth century of modern technology and the Internet, new internet registers have emerged which are needed to be explored for their better understanding.

Recently, the Internet has paved novel ways for budding writers, bloggers, students, IT specialists, and businessmen to communicate using the English language irrespective of social class, gender, and race (Shakir & Deuber, 2018). Researchers have documented many recently evolving internet registers: E-mail, e-forums/ internet forums, Text messages/SMS, Facebook status updates, comments, Facebook groups, Tweets, instant messaging (IM), and blogs. Weblogs are becoming most quickly popular as a mode of asynchronous Computer-mediated discourse (CMD). Blogs are a text-based form of communicating Computer-mediated communication (CMC) and also have the characteristics of asynchronous discussion forums. The language is crucially used for any sort of CMC. Therefore, it is required to make Computer-mediated discourse analysis.

According to Biber (2008), speech and writing are two general registers there are many specified registers such as academic prose, formal lectures, conversations, e-mail messages, and textbooks. Registers are delineated in situational as well as in linguistic terms, having significant communicative functions. The register is a cover term for any variety connected with situational characteristics and purposes (Biber & Conrad, 2001). It is important to recognize linguistic differences among registers. Ferguson (1983) has raised the point that register variation in which language structure differs according to the condition of use is universal in human language. The present study has explored internet blogs and their sub-categories to explore systematic similarities and differences among different sub-registers.

Corpus-based studies of registers focused on how particular grammatical features vary across registers and overall characteristics of registers along with co-occurring patterns (Biber, 2008). The multidimensional approach was originated for the thorough depiction of coexisting linguistic features of registers and for comparing spoken and written English registers (Biber, 1988). Former register-based studies have concentrated on generally written registers such as academic prose, Pakistani fiction, press reportage, press editorials, sports columns, and legal documents to explore language variation and to maintain the individuality of Pakistani English. The current paper was an MD analysis of sub-registers of Pakistani internet blogs to observe the linguistic and situational variances among them.

With the increasing popularity of the Internet and social media, new Internet registers such as blogs, Tweets, and Facebook comments, have evolved which are required to be explored for linguistic variation. Researchers have explored distinct linguistic features of Internet registers but coinciding clusters of linguistic variation have not been given due consideration till now. Egbert & Biber (2013) has also emphasized systematic classification of the language of the internet into various registers for their better understanding. The present study has examined the sub-categories of Pakistani Internet blogs to find out coinciding patterns of linguistic variation. Further, statistically remarkable linguistic variants have also been exposed.

This study has examined sub-categories of Pakistani Internet blogs to find out a recurring set of linguistic variations.

The objective of the study was to answer the following questions to achieve the desired objectives:

1. How far do the sub-categories of Pakistani Internet blogs exhibit linguistic variation on textual dimensions by Biber (1988)?
2. How far do the different categories of Pakistani Internet blogs show statistically significant linguistic differences?

2. Literature Review

2.1 Pakistani English

Pakistani English belongs to the "outer circle", south Asian varieties of English having a colonial background deeply rooted in British India before partition (Bolton, 2012; Kachru, 1982, 1986; Rehman, 1990). Baumgardner was the first American researcher who declared Pakistani English as a Non-native variety and he made use of Pakistani newspapers to teach grammar (Baumgardner, 1987, 1990). Pakistani researchers also supported Baumgardner's conception of non-native variety about Pakistani English and also explored phonological, lexical, grammatical, and semantic features and compared Pakistani English with British and American varieties to explore similarities and differences (Mahboob, 2004; Rehman, 1990; Talaat, 2002). The earliest corpus-based studies of Pakistani English were conducted by (M. A. Mahmood, 2009; R. Mahmood, 2009). They identified unique linguistic structures of Pakistani English and compare them with American and British Englishes.

Originally, English was the principal language of British colonial powers, later it became the language of the dominant economic power: the USA (Crystal, 2003). Pakistani English share the features of both varieties (R. Mahmood, 2009). With the dawn of new technologies, new linguistic prospects emerged and English became the key Lingua franca which affected newspapers, cinema, sound recording, broadcasting, transportation, and so on. Since the 1990s, English is being used as a language of the Internet (Crystal, 2003). The Internet has paved novel ways for budding writers, bloggers, students, IT specialists, and businessmen to communicate using the English language (Shakir & Deuber, 2018).

2.2 Blogs as New Electronic Registers

In the last years of the twentieth century, Email, mobile phones, text messages, and blogs appeared as new electronic registers with the rise of computers and the internet (Biber & Conrad, 2009). Researchers have also mentioned new web registers such as Emails, messages, Facebook posts, Facebook group discussions and comments, tweets, and blogs which have attracted the attention of linguists to explore variation among them (Biber & Egbert, 2016; Shakir & Deuber, 2018). Blogs emerged in the last decade of the twentieth century. They are one of the internet-written registers that are getting more popular these days.

Weblogs or blogs are recently emerging as a modern variety of Internet communication. Blogs are delineated as recurrently modified web pages with time, date, and converse chronological series on World Wide Web. Blogging has been getting popular as an online activity since 1990 and increasing rapidly with the availability of free blogging software (S.C. Herring et al., 2004). Blogs are made up of posts having time, date with the comments section with the name of the author, and they can also be updated (Miller & Shepherd, 2004).

Researchers explored different genres of blogs. Siles (2011) has discussed how online diary writers and personal publications transformed into weblogs. Online filters social groups transformed into web format with the stabilization of technology. Eldursi (2013) has the linguistic investigation of celebrity blogs, sports blogs, fashion blogs, sports blogs, food blogs, political blogs, and finance blogs and separated them thematic and personal blogs. The more the writer gives information, the less contextuality is found.

Blogs have been used as a tool for teaching, learning, and assessment tool for university students. The blogs could be used to improve communication skills and critical thinking (Song & Chan, 2008). Fashion blogs have also been used for fashion industry marketing and brand management (Sedeke & Arora, 2012). Researchers have analyzed the language of blogs using the MD approach (Daems, Speelman, & Ruetten, 2013; Grieve, Biber, Friginal, & Nekrasova, 2010) to explore new dimensions of variation. The language of blogs was also analyzed for discourse analysis and gender-based investigation. The diary blogs had more female stylistic characteristics while filter blogs were observed with more male stylistic features.

2.3 Registers Variation and MD Methodology

The register is defined as a situational variety of language use. Every register signifies the diverse combination of situational characteristics along with linguistic features (Biber, Johansson, Leech, Conrad, & Finegan, 1999) having a different communicative function. A corpus-based analysis of registers is based either on an individual linguistic feature or co-occurring arrays of linguistic features. MD approach adopted a second perspective for register variation. (Biber, 2008)

MD analysis was primarily used to compare wide-ranging spoken and written registers in English to explore register variation (Biber, 1988). Further, MD analysis was used to discover linguistic variation among different Non-western languages (Biber, 1993). The central purpose of MD analysis was to detect underlying dimensions of linguistic variation and to find out similarities and differences among registers. MD approach requires many spoken and written registers to identify a full range of co-occurring linguistic features because the single linguistic feature is not enough to identify linguistic disparity (Biber, 1995) Later on, the MD approach was used to identify situational and linguistic differences among newspapers, classroom lectures, textbooks, fiction, Emails, text messages, electronic forums (Biber & Conrad, 2009).

Biber & Conrad (2009) has stated that there are three distinctive characteristics of Multidimensional methodology. Firstly, computer-based texts are used to broadly represent registers in any language. Secondly, Computational tools are used to explore linguistic features in the text. Lastly multivariate statistical techniques are used to explore the co-occurrence of these identified linguistic features and underlying dimensions of variations in any language.

2.4 Earlier MD Based Studies

Pakistani researchers have analyzed many registers using the MD approach such as Pakistani fiction, (Ali & Ahmad, 2016) editorials, (Alvi, Mehmood, & Rasool, 2016) press reports, (Ahmad & Ali, 2017) Legal documents, (Alvi et al., 2016) academic writing (Azher, Mehmood, & Shah, 2018). Further, online registers were explored for exploring linguistic variation. Qasim & Shakir (2016) have analyzed the language of online book blurbs to explore linguistic variation, using the MD approach. Noor & Shakir (2016) discovered

language disparity between male and female fashion blogs on shoes and clothing on Dimension 1.

Pakistani researchers have given attention to new internet registers: Hussain (2013) analyzed a corpus of text messages to identify their linguistic features, Qasim, Hussain, & Mahmood (2015) analyzed Pakistani business emails for discourse analysis. But the language of blogs has not been given due attention. It is required to explore different internet registers for their better understanding (Egbert & Biber, 2013) The present paper has explored language variation among sub-registers of Pakistani internet blogs utilizing MD analysis and to examine differences among different categories of blogs.

3. Methodology

This paper was aimed at a Multidimensional analysis of Sub-categories of the Pakistani blogs register. The data for the study was collected from blog websites directly searched by Google. Each blog post was manually copied on MS word files, 2016, and changed into plain text for the next procedure. Pakistani blogs corpus was classified into 11 different categories. Table 1 reveals the sub-categories of Pakistani blogs corpus and codification of these categories which are two major steps of MD methodology.

Table 1: Details of sub-categories and coding of Pakistani blogs corpus

Sub-registers categories	Pak blogs and coding	Number of blogs in each category	Number of words in each categories
1	Auto Blogs (AutB)	50	25,417
2	Beauty Blogs (BeaB)	50	29,801
3	blogging Blogs (BloB)	50	59,747
4	Business Blogs (BusB)	50	44,722
5	Fashion Blogs (FasB)	50	24,608
6	Food Blogs (FooB)	50	27,960
7	Lifestyle Blogs (LifB)	50	27,074
8	Miscellaneous Blogs (MisB)	109	86,509
9	SEO Blogs (SeoB)	50	64,797
10	Social Media Blogs (SmeB)	41	38,708
11	Technology Blogs (TecB)	50	40,492
	Total	600	469,837

After codification, the corpus was sent for tagging to Biber lab at Northern Arizona University, USA and further analysis was accomplished. The Biber grammatical Tagger identified 154 linguistic features including parts of speech, lexico-grammatical clauses, and 67 linguistic features relevant to Biber's (1988) pioneering study. The raw occurrences of these 67 linguistic features were calculated by using another program known as Tag Count. Further, the raw count of frequencies was normalized against 1000 words as proposed by Biber (1988) and standardized as well for giving the same weight to all the language features (Biber, 1988). According to Biber (2008), factor analysis is used to discover discourse dimensions of variation and arrays of recurring linguistic features with their communicative functions working the discourse. Biber (1988) has identified five textual dimensions of variation with positive as well as negative features in each dimension. The mean dimension

scores were calculated and then compared to examine linguistic disparity among sub-categories of Pakistani Internet blogs on five textual dimensions. Lastly, two-factor ANOVA using SPSS 22.0 was applied and statistically remarkable linguistic differences among sub-registers of Pakistani Internet blogs were explored.

4. Data Analysis and Discussion

The central objective of this research paper was to analyze linguistic disparity among different sub-registers of Pakistani blogs using the MD approach. This section has discussed qualitative findings exposing similarities and differences among Pakistani internet blogs on five Ds. It also has a detailed discussion of outcomes of ANOVA showing striking statistical linguistic variance among sub-categories of Pakistani internet blogs. The mean scores of all the categories were compared with one another on each dimension. The situational differences were also discussed with each blog category.

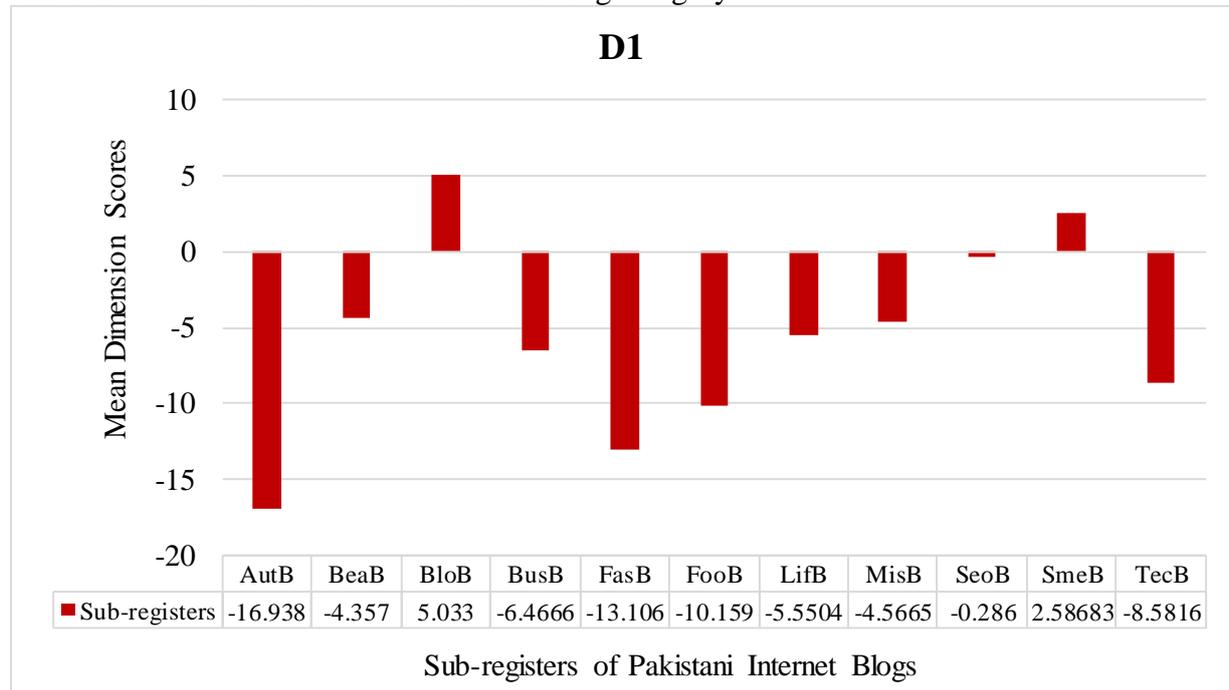


Figure 1: Comparison of Mean Scores of Sub-categories of Pakistani Internet blogs on D1

Figure 1 has shown the comparison of mean values of sub-categories of Pakistani internet blogs on Dimension 1. The comparison among registers of Pakistani Internet blogs on D1 has shown the linguistic variation. AutB, BeaB, BusB, FasB, FooB, LifB, MisB, SeoB and TecB show information producing discourse.

The discourse of AutB with a mean value of -16.938 is highly informational among the sub-registers. The bloggers provide information about new models of automobiles and the new techniques in manufacturing them. SeoB is the least informational with the lowest mean score -0.286. The results of ANOVA reveal significant linguistic variation between AutB and SeoB.

FasB with a mean value -13.1058, FooB having a mean score -10.159 and TecB with mean scores -8.5816 also show higher mean scores which Biber has associated with information producing discourse. The ANOVA test has disclosed statistically striking linguistic differences between AutB and FooB. The bloggers tell the readers about new trends of dresses, make-up articles, healthy food habits, and new technology hacks. BeaB having to mean score -4.357, BusB with a mean value -6.4666, PLifB with a mean value -5.5504, and

MisB with having a mean score -4.5665 also have information producing discourse with slight variation among themselves.

The information-producing discourse of blogs satisfies the demands of the readers who want more and more information about fashion hacks, beauty products, foods of different cities, Apps, and social media tools in Pakistani blogs. So Pakistani bloggers use more and more nouns and adjectives in their blogs.

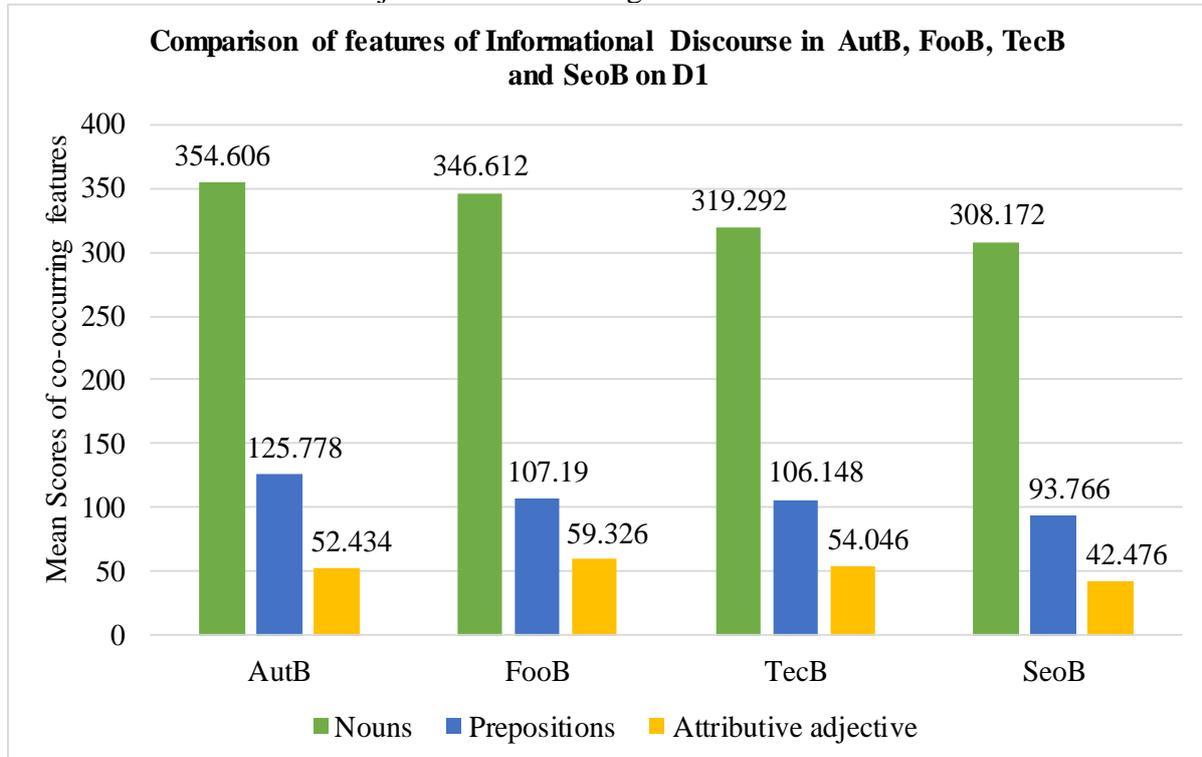


Figure 2: Mean Comparison of features of Informational Discourse in AutB, FooB, TecB and SeoB on D1

Figure 2 shows the mean values of coinciding features of Informational discourse in AutB, FooB, TecB, and SeoB on D1. Comparatively, AutB has a high frequency of informational features: Nouns (354.606), Prepositions (125.778), and attributive adjectives (52.434). While SeoB has revealed a low frequency of information-producing features: Nouns (308.172), Prepositions (93.766), and attributive adjectives (42.476). The use of informational features has shown a cautious selection of words to offer more and more information for the readers in blogs. The following example has been taken from representative corpus having frequent information producing features:

Pakistan's biggest industries rely on imported components. Over the past months, all auto companies, including Honda, FAW, and Suzuki have increased their prices to account for the rupee's falling value. This gave rise to several problems. A number of customers were asked to pay more even after they made a booking at a lower price. These companies ask you to cover the rupee's devaluation even if your car is in the delivery stage. (AutB)

In the above-mentioned example, there are bundles of nouns: Pakistan, auto companies, Honda, FAW, Suzuki, prices, rupee, rise, number, problems, customers, booking, devaluation, car, delivery, and stage. There are many prepositions (on, to, for, of, after, at,

and in) and attributive adjectives (biggest industries, imported components, past months, falling value, and lower price). These features co-occur in informational discourse. The blogger is informing the readers that due to the falling value of money the prices of cars have been increased because many parts are imported from other countries.

While the discourse of BloB, as well as SmeB, is involved as compared to other categories on D1. BloB with a mean value 5.033 shows more involved discourse than SmeB having a mean value of 2.58683. The findings of the ANOVA test have not displayed any statistically significant linguistic differences between each other. Comparatively, BloB shows a high frequency of positive features: private vb (13.844), vb_ present with mean score (107.974), pro_2 with mean score (58.41), pro_1 with mean score (12.244), pro_it having mean score (13.69) and modals of possibility with mean scores (12.384).

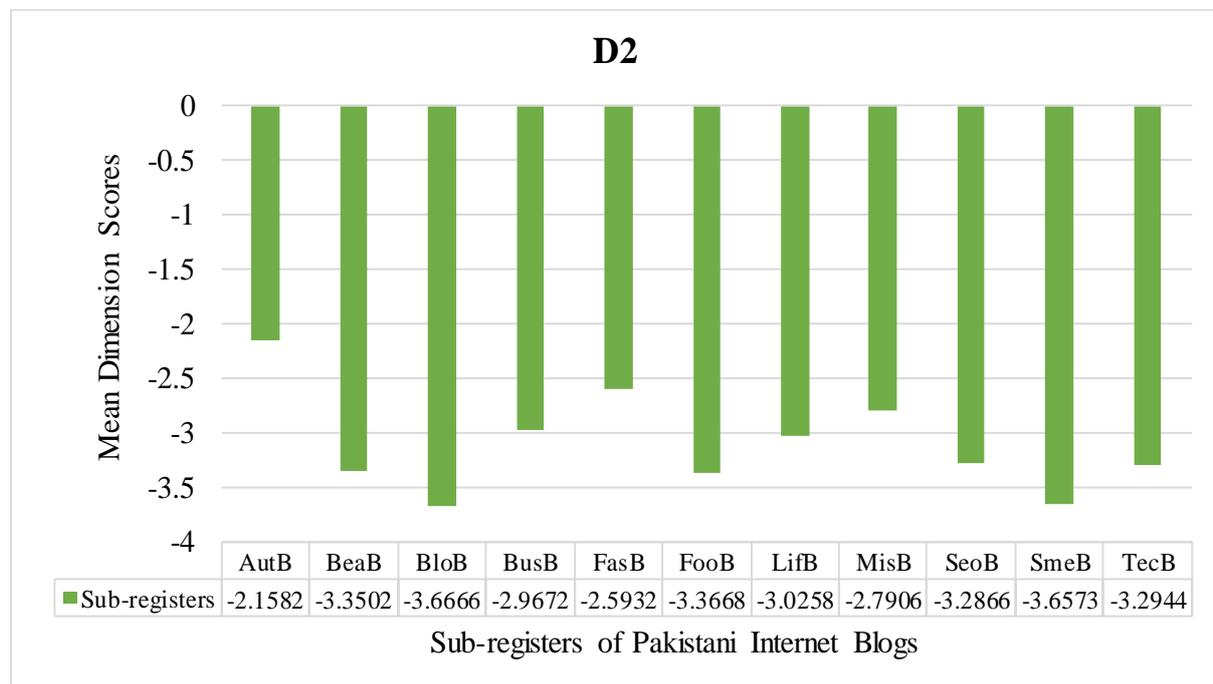


Figure 3: Comparison of Mean values of Sub-categories of Pakistani Internet Blogs on D2

Figure 3 has shown the mean comparison of sub-registers of Pakistani Internet blogs on D2. The comparison has revealed that all the sub-categories of Pakistani Internet blogs were non-narrative having negative mean scores on negative poles.

The language of AutB with a mean value -2.1582 is the least non-narrative among all the sub-categories while BloB having a mean score -3.6666 and SmeB with a mean value -3.6573 have shown high non-narrative concerns as compared to different sub-registers. The results of ANOVA exposed considerable statistical linguistic differences between AutB & BloB and AutB & SmeB. BeaB having a mean value -3.3502, FooB with a mean value -3.3668, LifB having a mean value -3.0258, SeoB having a mean value of -3.2866, and TecB having a mean value of -3.2944 also show non-narrative concerns having insignificant linguistic differences among themselves. BusB having a mean score of -2.9672, FasB with a mean value of -2.5932, and MisB with a mean value of -2.7906 also show non-narrative discourse has statistically insignificant language differences among themselves.

The non-narrative discourse of Pakistani Internet blogs was found appropriate according to the contents of Pakistani Internet blogs because blogs were personal opinions, feelings, and emotions of the bloggers about their nighttime routine, eating habits, social media tools. Beauty products and new fashion trends, different foods, and food points were written by bloggers using procedural information and descriptive discourse. The bloggers expose the pros and cons of food items, different Apps, social media tools, and technology. So, Pakistani Internet blogs have expository information, descriptive discourse, and procedural information with regular use of past verbs, third-person pronouns, present participle clauses, present tense, public participle clauses, and having fewer attributive adjectives and present tense verbs.

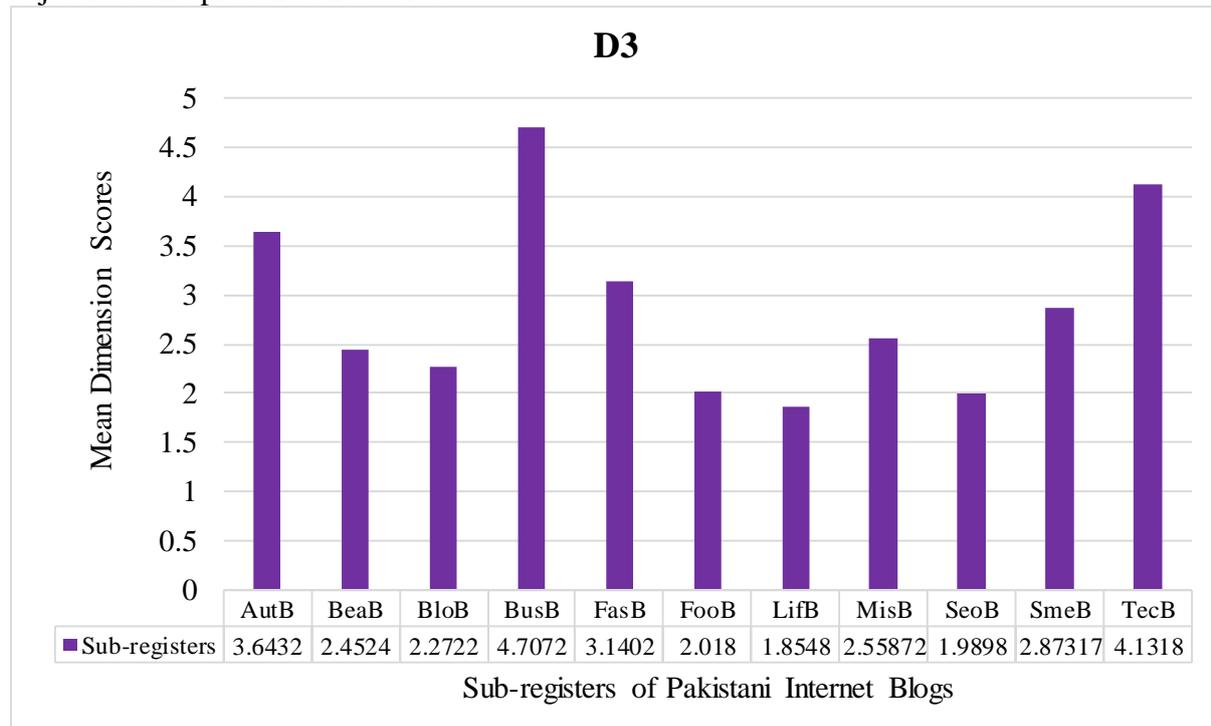


Figure 4: Comparison of Mean Values of Sub-categories of Pakistani Internet Blogs on D3

Figure 4 has shown the mean comparison among sub-categories of Pakistani Internet blogs on D3. The comparison has revealed that all the sub-registers of Pakistani Internet blogs have shown explicitly informational discourse with positive means scores and having recurring use of coord_conj_phrs and nominalization.

BusB having a mean score of 4.7072 exhibits features of explicitness whereas the language of LifB having a mean value of 1.8548 is the least explicit of all sub-registers. The discourse of AutB with the mean value of 3.6432, BeaB having a mean score of 2.4524, BloB with a mean value of 2.2722, FasB having a mean value of 3.1402, FooB having a mean score of 2.018, MisB having a mean score of 2.55872, SeoB with mean score 1.9898, SmeB with mean valve 2.87317 and TecB with mean score 4.1318 is explicit informational. The results of ANOVA have also demonstrated statistically insignificant linguistic disparity among various Pakistani Internet blogs on D3.

The explicit discourse is in accordance with the content of Pakistani Internet blogs. Beauty products, fashionable dresses, foods, lifestyle, and social media Apps are used by the layman. The bloggers share explicit information, so the less educated person could easily understand their ideas about makeovers, dressing, technology hacks, and beauty products.

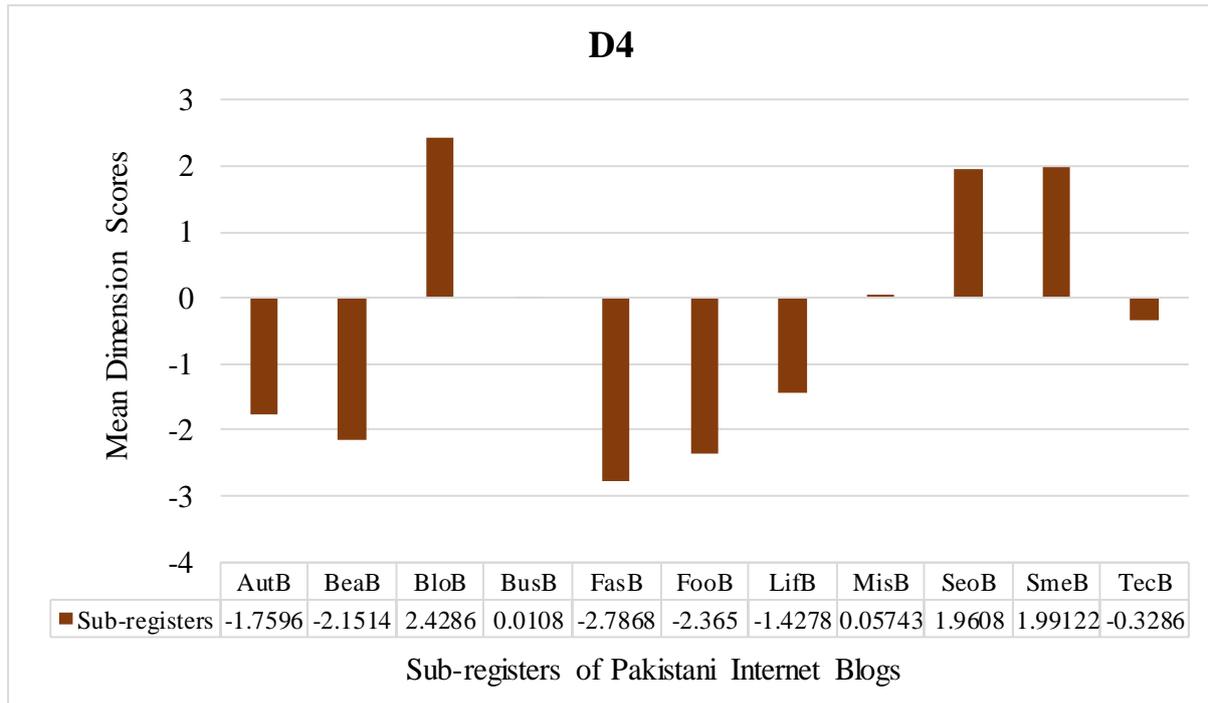


Figure 5: Comparison of Mean Values of sub-categories of Pakistani Internet Blogs blogs on D4

Figure 5 has shown the mean comparison among various sub-categories of Pakistani Internet blogs on D4. The comparison has revealed remarkable linguistic disparity among all the sub-categories. BloB, BusB, MisB, SeoB, and SmeB with positive mean scores are an overt expression of argumentative concerns although AutB, BeaB, FasB, FooB, LifB, and TecB with negative mean scores have covertly persuasive discourse. The positive features of overtly argumentative discourse include infinitive verbs, models of possibility, necessity models, suasive verbs, and subordinating conjunctions conditionals while there are no negative features on D4. The language of BloB having a positive mean value of 2.4286 is a highly overt expression of argumentation while the discourse of BusB with a positive mean value of 0.0108 is least overtly persuasive. The ANOVA results have revealed that BloB and BusB demonstrate statistically notable linguistic differences between each other. SeoB with a positive mean score of 1.9608, SmeB with a positive mean score of 1.99122, and MisB having a positive mean value of 0.05743 show overt expression of argumentation. The results of ANOVA have revealed that MisB shows statistically significant linguistic differences from SmeB and MisB.

The language of FasB having a negative mean value of -2.7868 shows highly covert expression of argumentation while TecB having a negative mean value of -0.3286 shows the least covertly argumentative discourse. The results of ANOVA showed statistically striking linguistic differences between FasB and TecB. FooB with a mean score negative -2.365, BeaB with a mean score negative -2.1514, AutB having a negative mean value of -1.7596, and LifB having a negative mean score of -1.4278 reveal covertly persuasive discourse. The result of ANOVA shows statistically remarkable linguistic differences between FooB and LifB.

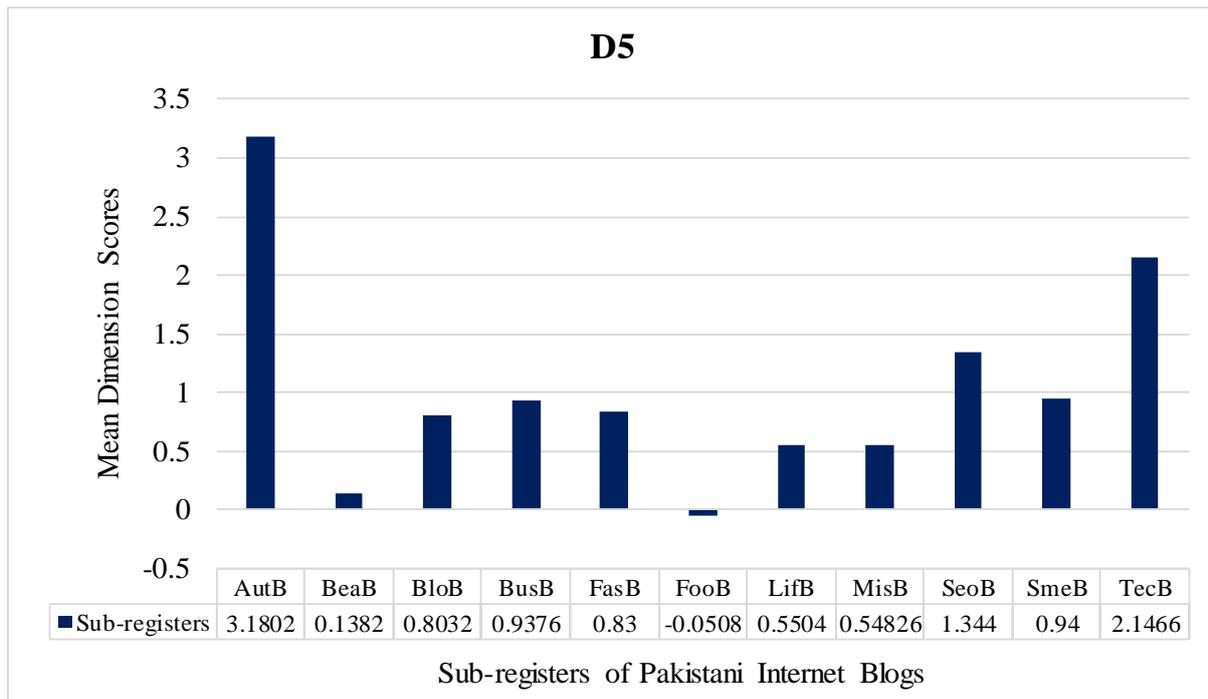


Figure 6: Comparison of Mean Values of Sub-categories of Pakistani Internet Blogs on D5

Figure 6 has shown the mean comparison among sub-categories of Pakistani Internet blogs on D5. The comparison has revealed that sub-registers of Pakistani Internet blogs have displayed impersonal/abstract discourse with positive loadings on positive poles except for FooB with negative mean scores of -0.0508. The language of AutB with a mean score of 3.1802 is highly abstract and impersonal with frequent use of co-occurring features such as *conj_adv1* (4.81), *passive_short* (10.394), and *sub_conj_othr* (4.108). But, BeaB with a mean value of 0.1382 shows the least impersonal/abstract discourse. The result of ANOVA has displayed statistically striking linguistic disparity between AutB and BeaB. Similarly, BloB with the mean value of 0.8032, BusB with a mean value of 0.9376, FasB with a mean score of 0.83, FooB with a negative mean value of -0.0508, LifB with a mean value of 0.5504, MisB with a mean score of 0.54826, SeoB having mean score 1.344, SmeB having to mean score 0.94, TecB having to mean score 2.1466 abstract discourse with less or more variation among themselves. The result of ANOVA showed prominent statistical linguistic differences between BloB and LifB.

5. Conclusion

It is concluded that there lie substantial linguistic and situational differences among all the sub-categories of Pakistani Internet blogs. Comparatively, AutB showed the highest informational producing discourse among all sub-registers on D1. BloB and SmeB show features of involved discourse on D1. On D4, BloB has revealed the highest overt expression of arguments with positive mean scores while FasB with negative loadings shows covertly argumentative discourse. D1 and D4 have been observed with statistically striking linguistic differences among themselves. On D2, all the categories of blogs have revealed non-narrative concerns. On D3, the language of BusB was discovered the most explicit informational among all sub-registers. On D5, AutB blogs were found the most abstract among all sub-registers while only FooB were found non-abstract. To sum up, the Language of Pakistani internet blogs is not a homogeneous phenomenon but each sub-register has its own distinct linguistic features with different communicative functions.

The study will be significant for the diachronic study of Pakistani English. The study is meaningful for future researchers to explore new internet registers for maintaining the distinctive identity of Pakistani English. The corpus of the study will also be fruitful for computational linguists for new MD analysis, discourse analysis, critical discourse analysis, and for exploring formulaic language patterns in the language of Pakistani Internet blogs. The exploration of situational and linguistic differences will be beneficial for bloggers, syllabus designers, second language learners and teachers, linguists, and blog search engines. The study will also be fruitful for bloggers, IT experts, and electronic media studies.

References

- Ahmad, S., & Ali, S. (2017). Linguistic variation across press reportage in Pakistani print media: A multi-dimensional analysis. *Journal of Media Studies*, 32(2), 135–163.
- Ali, S., & Ahmad, S. (2016). Discourse style variation among the leading novelists of Pakistani fiction in English: A multidimensional analysis. *ELF Annual Research Journal*, 18, 227–246.
- Alvi, U., Mehmood, M. A., & Rasool, S. (2016). A multidimensional analysis of Pakistani press editorials. *The Dialogue*, 11(3), 270–284.
- Azher, M., Mehmood, M. A., & Shah, S. I. (2018). Linguistic variation across research sections of Pakistan academic writing: A multidimensional analysis. *International Journal of English Linguistics*, 8(1), 30–43. <https://doi.org/10.5539/ijel.v8n1p30>
- Baumgardner, R. J. (1987). Utilizing Pakistani newspaper English to teach Grammar. *World Englishes*, 6(3), 241–252.
- Baumgardner, R. J. (1990). The Indigenization of English in Pakistan. *English Today*, 21, 54–65.
- Biber, D. (1988). *Variation across speech and writing*. Cambridge: Cambridge University Press.
- Biber, D. (1993). The multi-dimensional approach to linguistic analyses of genre variation: An overview of methodology and findings. *Computers and the Humanities*, 26(5–6), 331–345. Retrieved from <http://www.jstor.org/stable/30204629>
- Biber, D. (1995). On the role of computational, statistical, and interpretive techniques in multi-dimensional analyses of register Variation: A reply to Watson. *Text*, 15(3), 341–370.
- Biber, D. (2008). Corpus-based analyses of discourse: Dimensions of variation in conversation. In V. K. Bhatia, J. Flowerdew, & R. H. Jones (Eds.), *Advances in discourse studies* (pp. 100–114). USA & Canada: Routledge
- Biber, D., & Conrad, S. (2001). Register variation: A corpus approach. In D. Schiffrin, D. Tannen, & H. E. Hamilton (Eds.), *The handbook of discourse analysis* (pp. 175–196). USA & UK: Blackwell Publisher Inc.
- Biber, D., & Conrad, S. (2009). *Register, Genre and Style*. Cambridge University Press.
- Biber, D., & Egbert, J. (2016). Register variation on the searchable Web: A multi-dimensional analysis. *Journal of English Linguistics*, 44(2), 95–137. <https://doi.org/10.1177/0075424216628955>
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. London: Longman.
- Bolton, K. (2012). World Englishes and Asian Englishes: A survey of the field. In Kirkpatrick, A., & Sussex, R. (Eds.), *English as an international language in Asia: Implications for language education* (pp. 13–26). Netherlands: Springer.
- Crystal, D. (2003). *English as a global language* (2nd ed.). New York: Cambridge University Press.
- Daems, J., Speelman, D., & Ruetten, T. (2013). Register analysis in blogs: Correlation between professional sector and functional dimensions. *Leuven Working Papers in Linguistics*, 2, 1–27.
- Egbert, J., & Biber, D. (2013). Developing a user-based method of web register classification. *Proceedings of the 8th Web as Corpus Workshop*, 16–23.
- Eldursi, S. (2013). *Formality and contextuality in blogs a linguistic analysis*. Goteborgs University.
- Ferguson, C. (1983). Sports announcer talk: Syntactic aspects of register variation. *Language in Society*, 12(2), 153–172.

- Grieve, J., Biber, D., Friginal, E., & Nekrasova, T. (2010). Variation among blogs: A multi-dimensional analysis. *Genres on the Web*, 303–322. <https://doi.org/10.1007/978-90-481-9178-9>
- Herring, S.C., Scheidt, L. A., Bonus, S., & Wright, E. (2004). Bridging the gap: A genre analysis of Weblogs. *Proceedings of the 37th Annual Hawaii International Conference on System Sciences, 2004.*, 11 pp. <https://doi.org/10.1109/HICSS.2004.1265271>
- Herring, Susan C., & Paolillo, J. C. (2006). Gender and genre variation in weblogs. *Journal of Sociolinguistics*, 10(4), 439–459. <https://doi.org/10.1111/j.1467-9841.2006.00287.x>
- Hussain, M. N. (2013). *Language of text messages : A corpus based linguistic analysis of SMS in Pakistan*. International Islamic University Islamabad.
- Kachru, B. B. (1982). South Asia English. In R. W. Bailey & M. Gorlach (Eds.), *English as a world Language*. The University of Michigan press.
- Kachru, B. B. (1986). The Indianization of English. *English Today*, 2(2), 31–33. <https://doi.org/10.1017/S026607840000198X>
- Khan, H. I. (2012). The evolution of Pakistani English (PakE) as a legitimate variety of English. *International Journal of Applied Linguistics & English Literature*, 1(5), 90–99. <https://doi.org/10.7575/ijalel.v.1n.5p.90>
- Mahboob, A. (2004). Pakistani English morphology and syntax. In Kortmann, B., *The handbook of varieties of English* (Vol. 2), (pp. 1045–1056). Berlin; New York: Mouton de Gruyter.
- Mahmood, M. A. (2009). *A corpus based analysis of Pakistani English*. Bahauddin Zakariya University Multan.
- Mahmood, R. (2009). *A Lexico-grammatical study of noun phrase in Pakistani English*. Bahauddin Zakariya University Multan.
- Miller, C. R., & Shepherd, D. (2004). Blogging as social action: A genre analysis of the weblog. *University of Minnesota*. Retrieved from http://blog.lib.umn.edu/blogosphere/blogging_as_social_action_a_genre_analysis_of_the_weblog.html
- Noor, S., & Shakir, A. (2016). Study of Information generating linguistic features in online brands of Pakistani fshion blogs. *PUTAJ- Humanities and Social Sciences*, 23(1), 17–25.
- Qasim, S., Hussain, Z., & Mahmood, M. A. (2015). Genre analysis of business emails written by Pakistani employees : A case study in Pakistani organizational context. *Journal of Literature, Language and Linguistics*, 10, 1–10.
- Qasim, S., & Shakir, A. (2016). Linguistic variation of Pakistani fiction and Non-Fiction book blurbs : A multidimensional analysis. *EFL Annual Research Journal*, 18, 185–206.
- Rehman, T. (1990). *Pakistani English*. National Institute of Pakistan Studies, Islamabad.
- Sedeke, K., & Arora, P. (2012). *Effective fashion blogs and their impact on the current fashion industry* (Erasmus University Rotterdam). Retrieved from <http://kenanaonline.com/files/0081/81978/Effective Fashion Blogs and Their Impact on the Current Fashion Industry.pdf>
- Shakir, M., & Deuber, D. (2018). A multidimensional study of interactive registers in Pakistani and US English. *World Englishes*, 37(4), 607–623.
- Siles, I. (2011). From online filter to web format: Articulating materiality and meaning in the early history of blogs. *Social Studies of Science*, 41(5), 737–758. <https://doi.org/10.1177/0306312711420190>
- Song, H. S. Y., & Chan, Y. M. (2008). Educational blogging: A Malaysian university students' perception and experience. *Proceedings Ascilite Melbourne 2008*, 954–963. Retrieved from <http://ascilite.org.au/conferences/melbourne08/procs/song.pdf>
- Talaat, M. (2002). *The form and functions of English in Pakistan*. Bahauddin Zakariya University, Multan.

