

# Impact of Social media on the Transformation in English Language Usage among People from Vernacular Milieu

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**ABSTRACT:** English as a language has been evolving since the fifth century and since then the biggest impact on the language has been due to technological developments in the new millennium. Social media plays a substantial role in the overwhelming changes in the usage of English language. There is a strong correlation between the pace at which the language has seen transformation and the dramatic increase in the number of users of social media as well as their level of engagement. This study examines the impact of social media on the usage of English language among people whose primary language of communication at home is vernacular, but education has been in English. The goal is to put forth a statistically verified decision tree model that can elucidate the extent of change that engagement on social media could have on an individual's language proficiency. Binary Logistic Regression Analysis has been used to develop an Integrated Model based on the Decision Tree technique. The distinctive model presents various probable outcomes of individual language fluency depending on the level of social media engagement.

**Keywords:** Social Media Engagement, English Language Transformation, Decision Tree Model, English Language Proficiency, Binary Logistic Regression

## 1. Introduction

From cave drawings to Emojis, language as a medium of communication has been evolving to come up with better, more complex and less ambiguous words and images. English language is no exception and has evolved over a period of time. As a language, English began to take shape in the fifth century when the Angles, the Saxons, the Jutes and the Frisians; who spoke the same West Germanic tongue but with different dialects intermingled to create a new Germanic language; now referred to as Anglo-Saxon, or Old English (Haylock, 2021). Over centuries, English transformed due to the influence of various factors like migration, colonization and eventually technological developments.

(Asur & Huberman, 2010).

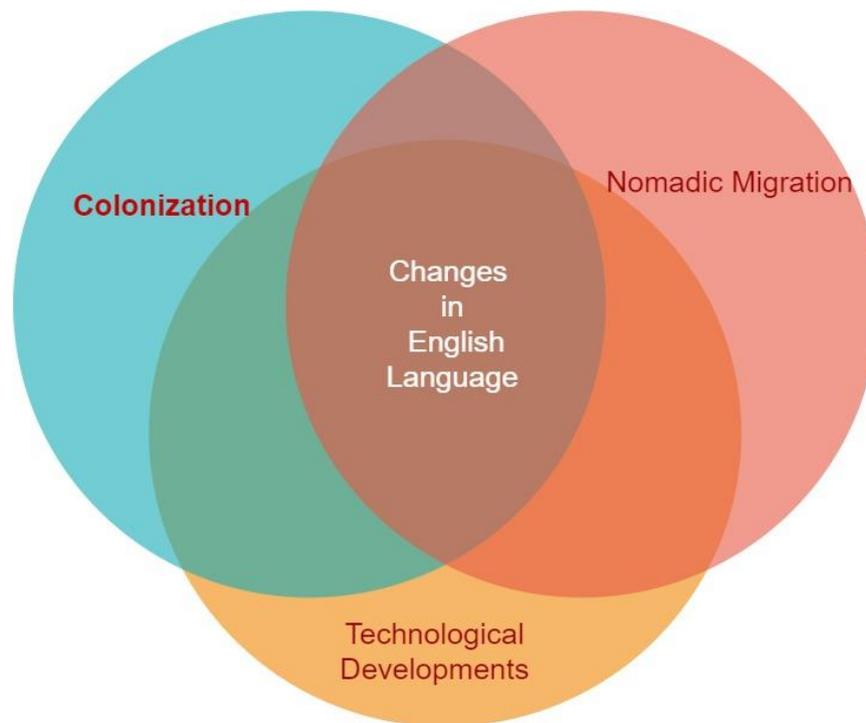


Fig 1: Evolution of English language

Language change can thus be viewed as a diffusion process of some new linguistic elements (Linguistic innovations) in a language community (Shen, 1997), (Nettle, 1999), (S-Y, 1979).

This process can be divided into two sub-processes: “innovation” and “diffusion” (or “propagation”) (Blythe & Croft, 2012). With the development of technology and more importantly, advent of the Internet, new words in English emerged and over the years, English became THE language for most Computer Mediated Communication (CMC). The more user-friendly technology became, the more new words materialized; eventually finding its way into common usage among people and expanding English vocabulary. But a conspicuous transformation in the language manifested with the introduction of social media. Since the early 21st century, various social networking platforms have become ubiquitous and integral to socializing as well as content sharing (Asur & Huberman, 2010)

The genesis of social media can be traced back to 1971 when the first email was sent (Baron, 2001); but it was only in 2002 with the launch of Friendster that social media as is known now was pioneered. In succession various other social media were launched; as depicted in the Figure 2. (Hendricks, 2021)



Fig 2 : Timeline of Development of Social Media Hendricks D (2021)

Social Networking Sites made it possible for people to increase their connections, social relations; especially among people with similar interests, activities, social backgrounds and real-life connections and they allow their users to share ideas, activities, events, and interests within their individual networks. These platforms cut across all age groups with a variety of educational, cultural, professional, social and linguistic backgrounds due to their free availability, open accessibility and flexibility of language (Kachhia & Kachhia, 2014) use thus leading to an exponential increase in users with many users being active on multiple platforms.

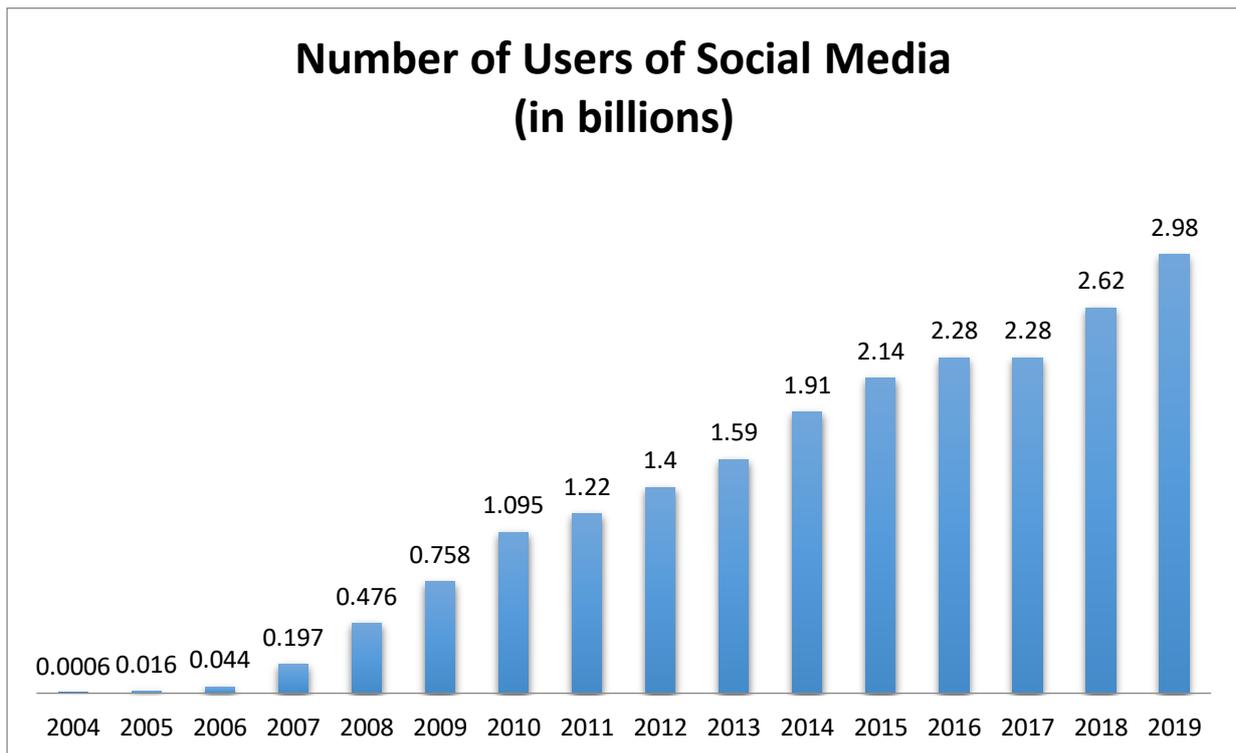


Fig 3 : Number of Users of Social Media - (Ortiz-Ospina E., 2019)

One of the common factors across these different social media was the use of English language as a medium of communication (Herring S, 2012). However, the language used across these social media is not often the standardized English which has led to introduction of new phrases and words that are distinctly used in social media. These words have eventually found their way into the standardized and accepted form of English thus not only increasing the vocabulary; but also adding new dimensions to the way the words are used grammatically (Herring, 2012) (Huld, 2018).

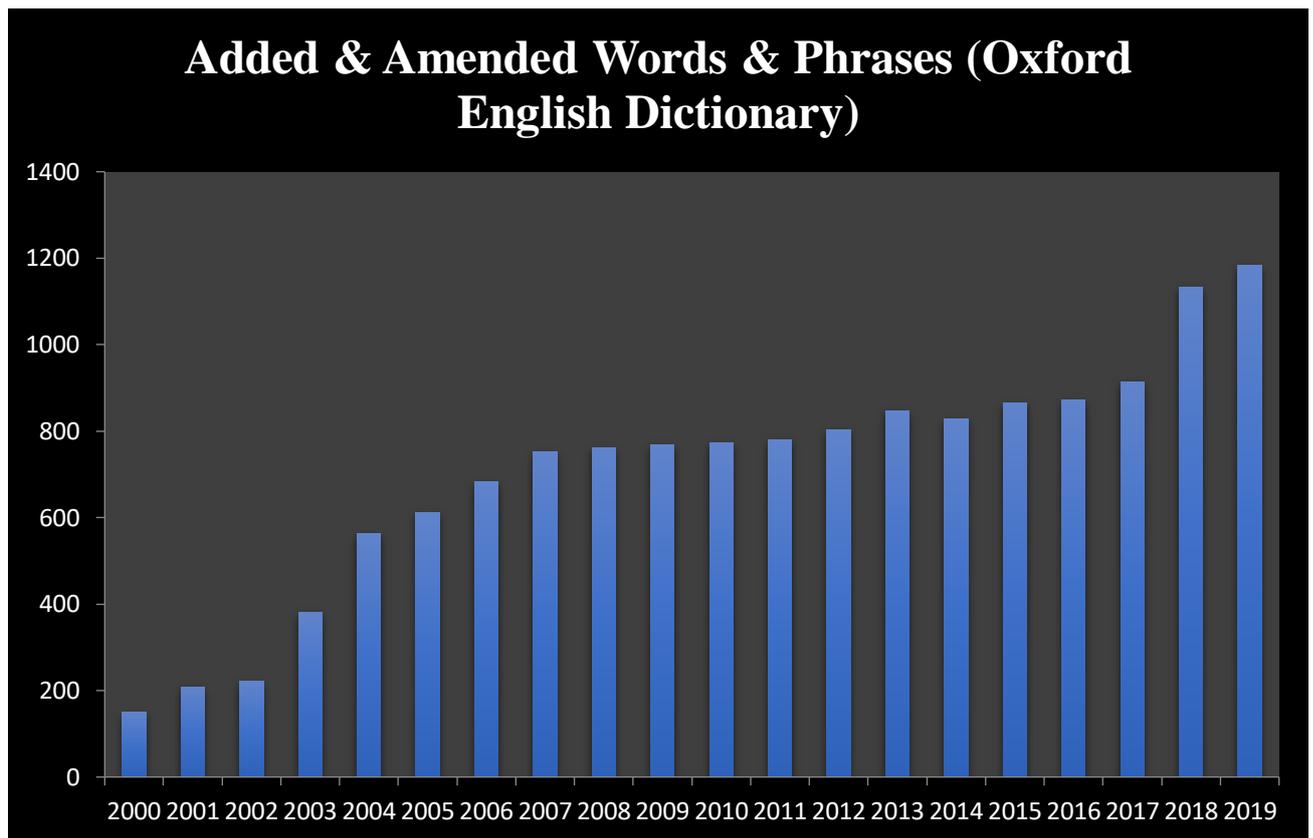


Fig 4 : Words Added to the English Dictionary (Huld, 2018) (Oxford English Dictionary, 2021)

As can be observed from Fig 3 and Fig 4, there is a correlation between the increase in the number of users on social media and the lexical increase in the English language. The causality between social media and transition of English words is apparent. Reappropriation of prevailing words is another change that has been caused by users of social media. While it can be argued that facilitating quick and easy interaction on social media (Zappavigna, 2012) has had a negative impact on grammar, spellings and tone of the language, it has also allowed widening the reach of English language as well as enriching it.

India is a country that has contemporary linguistic diversity with more than 120 languages and 270 mother tongue languages (Census, 2011) which are the primary languages that individuals learn to communicate in. English percolated into the Indian language fabric since the colonial era (Chandras J, 2020) and as per official records, English speakers make up 10.6% of the population; out of which only 0.02% state it to be their first language while 6.8% and 3.8% report using English as their second and third language respectively (Census, 2011). The dominant languages in India still remain individual mother tongues also vernacular languages. The Indian primary and high school education systems too has three prevailing mode of teaching – ‘English-medium’, ‘vernacular-medium’ and ‘semi English-medium’.

This study endeavours to discover statistically significant impact that various social media (including gaming platforms) has on the way people from vernacular environment at home but with 'English-medium' education, speak and write English.

## 1. Literature Review

Established researches and studies that focus on the connection between Social Media and changes in the English language indicate eight broad categories that elucidate the shift in the way the language is being used; which will eventually bring about a whole new version of English (Birner, 2022). This overview focuses on well-documented researches that cite plausible reasons for changes in English language usage especially among users to whom English is second language.

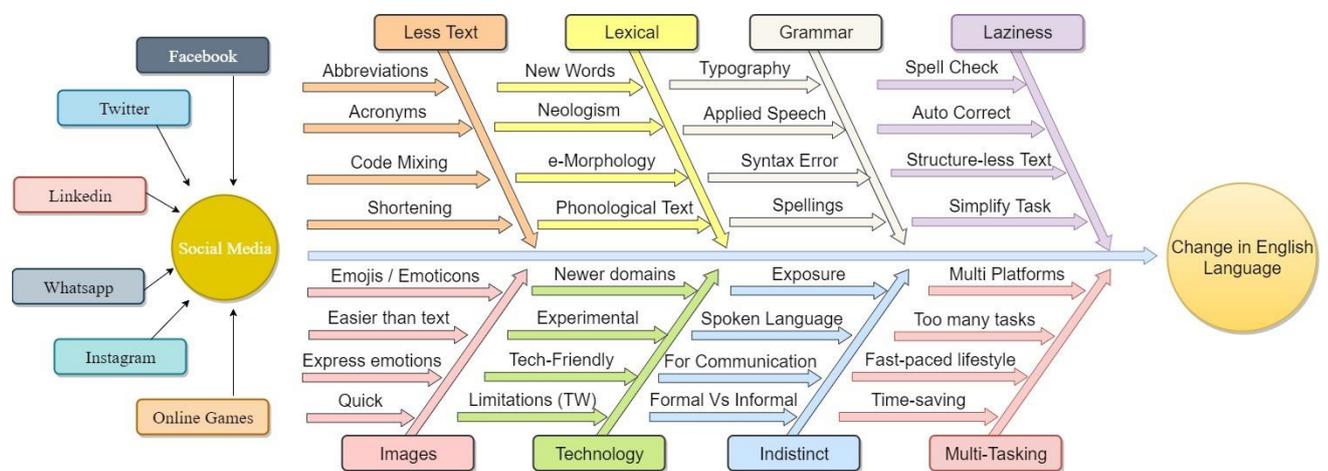


Fig 5: Reasons and impact of Social Media on changes in English Language

At-a-glance view

**2.1. Deliberate Use of Less Text:** The need to keep pace with the rapid exchange of messages over social media is one of the reasons why users choose fewer words to convey their message (Kapoor, et al., 2017). The beginnings of usage of shortened words can be traced back to the 'telegraph technology' and this fragmented language perpetrated a new language through SMS and other social media (Godwin-Jones, 2017). Loosened orthography became a norm in most forms of electronic communication; be it abbreviations, which include acronyms, clippings and vowel omissions, or words substituted to with phonetic letters, or represent prosody or non-linguistic sounds (Herring, 2012) (Crystal D., 2011). Though use of non-standard spellings could be unintentional and could have begun in a humorous and creative manner, it manifested as a norm as it saved keystrokes, (Baron, 2001) while phonetic words expressed emotions explicitly (Herring, 2012). Most researches that delve into the connection between social media and linguistics has considered Facebook as the most popular social networking site which is rife with abbreviated words and well as switched codes especially from multi-lingual Facebook users, (Shafie & Nayan, 2013) leading to a negative impact on the written skills (Miller, et al., 2016). Studies conducted at Tlemcen University, Algeria show that 82% of the people

on social networking sites use abbreviations in their text because it saves time and is easier to use than typing out the entire words. Studies also show that these abbreviated words have found their way into academic writing (Aziz, Shamim, & Azi, 2013). The constant use of short hand in chats and social media has affected students' writing skills as they tend to use similar shortened words in their exam papers as well (Obi, Bulus, Adamu, & Sala'at, 2012). Another perspective that has been put forth by researchers focuses on the 'Global Village' concept of the social media. With users from different nationality, the social platform becomes a melting pot of language and creating of alternate dialect; especially acronyms, bring about a connect between the users, a sense of life-like conversations (Jimma, 2017). This commonality of acronyms or neologism, despite being a liability in use of English, can convey more with fewer words and also probably expunge any grammatical obstacle for non-native speakers (Rumsiene, 2006). A number of research studies conducted among the student community across the world, to study the impact of social media on academic writing indicate that usage of abbreviations, non-standard spellings, neologism by way of using a combination of numbers and words are all rampant (Songxaba & Sincuba, 2019).

Linguists believe that these changes in the way language are expressed merely as natural progression (Sapir, 1929). Similar to distinct and unique styles of English across geographical and cultural domains, technology is creating a form of English which is common across social networking sites which allow coinage of new words, changed collocations, new derivations of existing words, eponym, pseudo-neologism and blends of different words. Topological analysis indicate new meanings of words and formation of new compound nouns like netiquette and frenemy, indicating a paradigm shift of English language usage (Kachhia & Kachhia, 2014).

**2.2 Emergence of New Vocabulary:** With the emergence of social media, English has become a decentralized language, going beyond boundaries, personalizing it to specific communities (Crystal D. , 2011) The power that various social media yield has influenced the way people use English to communicate (Crystal D. , 2011). Besides newly formed acronyms, abbreviations and all forms of neologism, English has seen a surge in new vocabulary which has been formalized into standardized language. Words combining unorthodox typography or orthography have become evident across various social networking sites and have come to be naturalized into regular language (Herring, 2012). Multiplayer online games have given rise to creative e-morphology because the communication between the players during these games is intense and fast (Mattiello, 2008). Most of the online games have built-in voice chat and texts which influence the way players interact with one another. Since these games can bring together participants at an international level, English becomes the Lingua Franca and this wide network allows an increase in loan words from other languages leading to rising corpus of words in English that are being standardized (Jimma, 2017). Moreover, different connotations have emerged to previously standardized vocabulary because of multi-user dimension of online games (Kayaalt, 2018) as well as the younger generation users are open to experimenting with different languages which could lead to rich linguistic diversity (Baron, 2001).

Studies have also shown social media (like Facebook) to be an expedient tool to enhance language skills especially among non-native English-speaking individuals (Slim & Hafedh, 2019) and users with reciprocal friends on social media were tested to perform better in English (Lavy & Sand, 2012).

However, these studies lack empirical research. Contrary to the findings in many studies, English language used in informal chats and social media are quite distinct and situational and does not majorly affect the proficiency of English language users (Thurairaj, Hoon, Sinha Roy, & Fong, 2015). Social media has adapted a Meta language (influenced by incorporating an individual's mother tongue) that is shared among a closed community and this is not apparent in academic writing.

**2.3 Disregard to standardized grammar:** Every language is bound by structural rules that dictate the structure of words, phrases, sentences in language to eventually convey a message. Language purists present a cynical view that computer mediated communication is corrupting the English language; however some scholars do not view the effects as detrimental. They consider the language used in these media as applied speech where the words used are closer to oral language. Researchers argue that since this form of language used over electronic mediated communication is still in its nascent stage, it has not had time to formalize a standardized structure (Herring, 2012). Since users of electronic communication are spread across various geographical locations and hail from various socio-economic strata, the grammar used in their native language tends to permeate into the English used across social media (Johanyak, 1997). Some of the most common errors found in language usage were non-standard capitalization, rampant use of emoticons and keyboard character that symbolize facial expressions, 'Leet' – common among the gaming communities and substitution of letters to indicate impact or emotions (Dresner & Herring, 2010). Given time, scholars predict that, e-grammar will evolve at an accelerated pace and eventually standardize thus giving bringing out an emergence of a distinct form of traditional grammar (Herring, 2012). A survey conducted among Malaysian students indicate that a large number of social media users were not even aware that the grammar they were using was wrong (Thurairaj, Hoon, Sinha Roy, & Fong, 2015). Just as social media has emerged as new ways of communication, so has the language which is now commonly called as 'Netspeak' which allows a high degree of grammatical errors like – no punctuations or open sentences, use of symbols to signify words, use of capitalization to emphasize (Tahir & Hassan, 2021) transformation of nouns into verbs all leading to a negative impact on grammar skills in academic writing (Jahromi, A Quantitative Study of the Perceived Impact of Social Media Networks on Bahraini Users' English Language Learning, 2020). Since communication on social media is personal, any form of intervention by teachers would not be deemed appropriate which just reinforces usage of bad grammar and poor writing skills; especially if English is not the native language (Friedman & Friedman, 2021). Another aspect of increase in the percentage of poor grammatical skills among social media users has been attributed to absence of proof reading before posting online instigating loss of linearity and coherence (Cingel & Sundar, 2012).

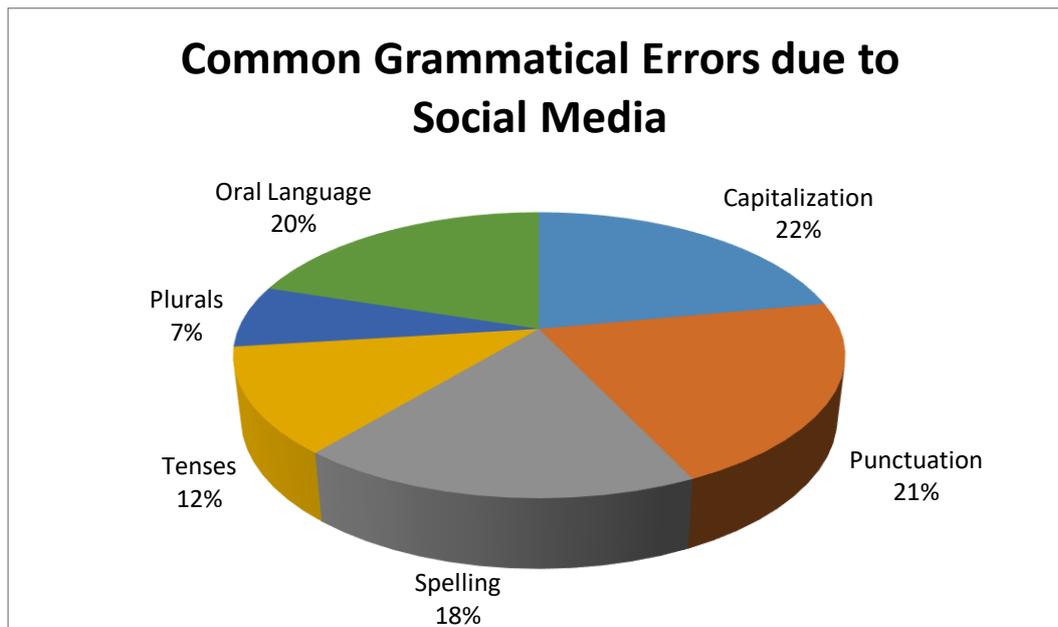


Fig 6: Impact of Social Media on Grammatical Errors in Academic Writing

## 2.4 Technology:

2.4.1. *Easier Technologies*: With technology becoming user-friendly by the day, it has become easier to apply features that would reduce effort on the part of individuals. Spell checks, auto-corrections of words and phrase suggestions, technology has diminished a person's dependency on his/her knowledge and learning which translates into the fact that people need not put in the effort to learn, apply their skills and correct the language. This is specifically true of usage of language across all forms of Computer Mediated Communication. Brevity and the need to hurry are cited as the most probable causes for use of acronyms, improper grammar and lack of relevant punctuations in communication over social media. The spell-check feature and emoticons are making the users lazy; lacking the initiative to apply standardized language skills (Tirota, 2015). These features quicken and simplify tasks so people develop an attitude of using lesser efforts into anything they write (Alhusban, 2016) allowing them to take shortcuts giving no importance to using standard language (Purcell, Buchanan, & Friedrich, 2013) The inability to apply grammatical skills and proper language enabled by better software can be seen in academic writing; either by hand or electronically, where support features are disabled. Being born with easily accessible assistive technologies, the millennials not only display a high level of dependency on the language assistance provided in these technologies but are open to experimenting with language. Studies have shown that millennials spend an average of 7.5 hours a day on social networking sites which implies their reliance on technologies to be able to multi-task and accomplish their communication (Rideout, 2012). The easier to use technologies become the more people lean on the features to express themselves. It has implanted a belief that short-cuts can be taken without understanding the writing process. Students justify their failure to use correct language by emphasizing the triviality of writing correctly (Alhusban, 2016). Through its developing stages, social media was restricted to use of English language; but over the years its adaptive features have allowed posting and writing in almost all languages and scripts in the world allowing situational code-switching between English and vernacular languages (Shafie, Darus, & Osman, 2010) and the

more users spend time on social media language, the more it influences standard language usage (Al-Qudah, 2016).

2.4.2. *Restrictive Technologies*: Certain social media like Twitter have a limitation on the number of characters that can be posted at a time which in a way compels the users to resort to shortened words (Barman, Das, Wagner, & Foster, 2014). Often, to stay connected on social media, people use mobile phones, which until recently had small screens. To overcome this constraint, acronyms of words and sentences became common (Al-Ahdal, 2021).

2.4.3. *Humanistic Technologies*: With a multitude of platforms for people to communicate becoming available, people are now spending more time communicating using technology rather than face to face. While this allows connecting with people across geographies; one of the limitations that hampers communication is the inaccuracy while expressing emotions merely through words. Thus Emojis, Emoticons, GIFs and pictures found a place in the realm of social media that allows conveying of non-verbal information through graphic symbols that are directly mapped onto different facial expressions, situations, phrases (Crystal D. , 2009). These computer-generated images not only simplify an individual's intended emotional message, it also allows lesser key strokes (Herring, 2012).

The new technologies with special linguistic features have changed the way language is written on social media which has led to an increase in the use of chat language across different situations.

**2.5 Blurred boundaries between virtual and real scenarios:** Increased stretches of time being spent on various social media, has created a convoluted concern where users are unable to distinguish between real word communication and that which appears on virtual platforms. Teenagers who spend more than 30% of their day on social media do not consider computer mediated communication as writing; but rather just a tool for communication hence it is not imperative that formal language be used (Shafie & Nayan, 2013). This inability to differentiate between the style of language used on social media and in academic or official communications has intimidated graduates especially in use of formal language at work place. A mix of text language and formal language is being commonly used in schools, colleges and workplace (Thurairaj, Hoon, Sinha Roy, & Fong, 2015). The focus on social media is getting a message across in a unique way so as to draw attention. It seems to be all about appearance rather than accuracy of writing skills which means that use of proper language in formal communication seems to be of no consequence (Galvin & Greenhow, 2019) which is predicted to show a drastic decline in structured language in due course of time (Alhusban, 2016). While this seems to have a dystopian view of the future of English language, there are studies that show that teens definitely know the difference between writing for academic or formal situations and casual writing (Lenhart).

## 2. Method

### 3.1 Study Design

This qualitative research study is guided by the Constructivist Grounded Theory (CGT) and intends to delve into underexplored association between various social media and the transformation in the usage of English language. The rationale behind using CGT is to identify and explain conceptually the

ongoing shift in English language because of the level of engagement on social media (Glaser, 2002). Though language could be learnt from various sources this research paper focuses on two primary sources of language learning environments – home and educational institutions. Participants were invited to respond through a self-administered online survey form. Using the survey form allowed gathering a large quantity of data relatively quickly while keeping the respondents unaware that their use of language in the survey is being evaluated.

### 3.2 Data Collection

Online survey is the method selected for this research. In a well-network environment, it is ideal to reach wider audience across various strata (Raju & Harinarayana, 2016). The survey form used in this research comprised of objective as well as subjective type questions. The structure questionnaire was designed to capture dichotomous, nominal, ordinal, interval-level and continuous responses. While the objective questions addressed information about the respondents' exposure to language, social media engagement and their self-evaluation about impact of social media on their language; the subjective questions elicited descriptive answers to questions about social media behaviour, effects of social media and presence on gaming websites. These descriptive answers brought out individual's use of English language; highlighting the errors across grammar, language & syntax, spellings, use of acronyms and social media jargons.

### 3.3. Participants

The survey form was shared across professional and personal contacts who are social media users. Respondents were also reached out using Facebook, LinkedIn, Twitter, WhatsApp and student portals. The aim was to ensure that the distribution of attributes among the surveyed population is within the specified confidence limits (Stern 2014). As part of Phase One, the respondents were categorised into two groups viz., Students and Professionals. Students comprised of respondents in the age group of 18 – 24 and professionals were individuals who were 22 years and above. The total number of relevant and valid responses received were 352 wherein students (n=183) and professionals (n=169).

**Table 1: Academic Profile of Respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Bachelors	219	62.2	62.2	62.2
Diploma	13	3.7	3.7	65.9
Masters	114	32.4	32.4	98.3
Ph.D.	6	1.7	1.7	100.0
Total	352	100.0	100.0	

All participants had sufficient exposure to English language either as part of their education and/or social environment and are engaged on at least one social media.

**Table 2: Primary Language During Education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vernacular	71	20.2	20.2	20.2
	Semi English	24	6.8	6.8	27.0
	English	257	73.0	73.0	100.0
	Total	352	100.0	100.0	

**Table 3: Primary Language at Home**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vernacular	298	84.7	84.7	84.7
	English	54	15.3	15.3	100.0
	Total	352	100.0	100.0	

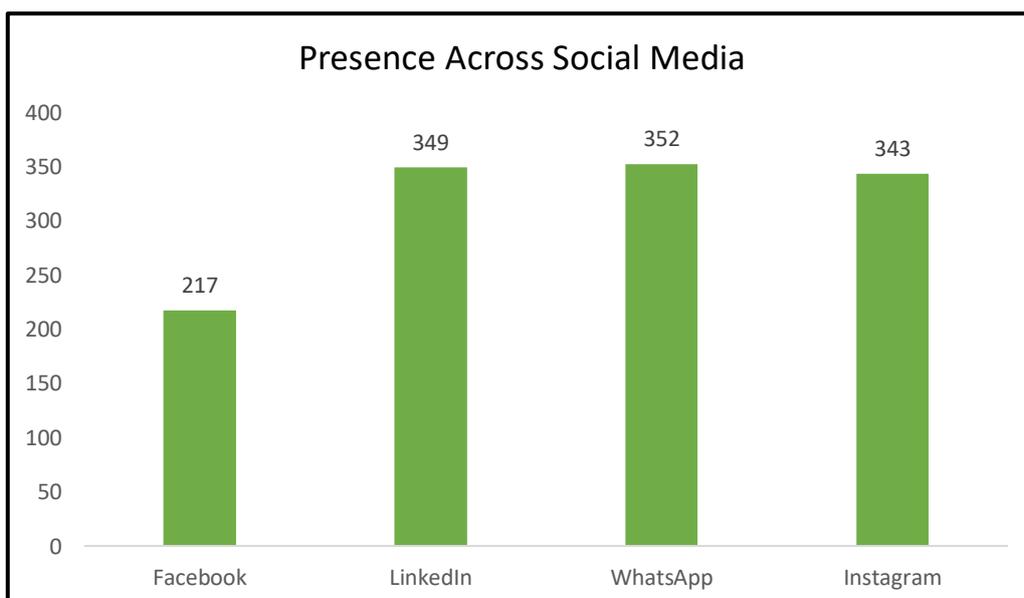
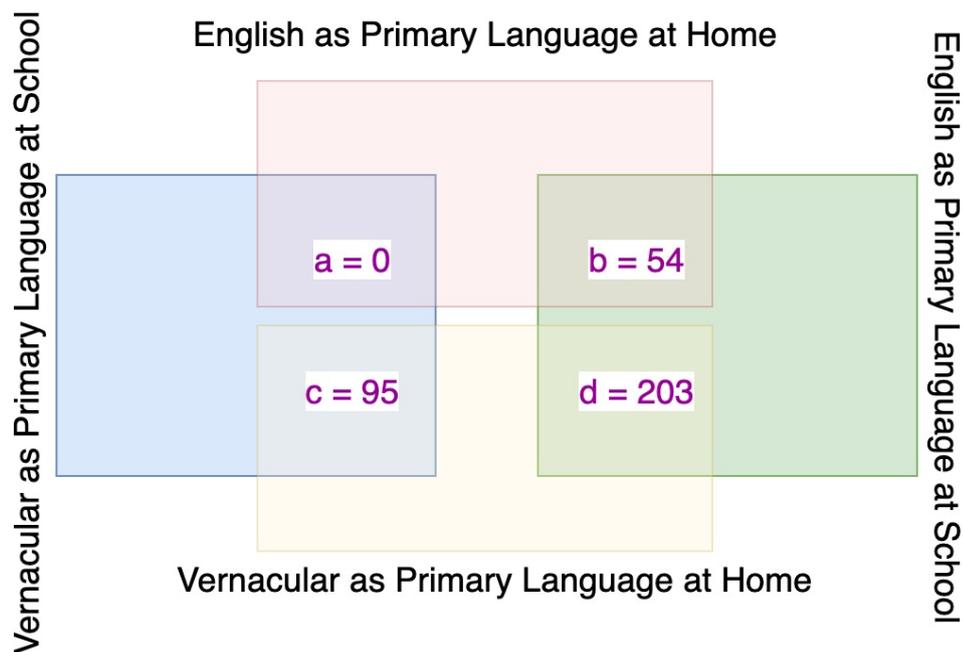


Figure 7: Presence Across Social Media Once the data was received and collated, in Phase Two, the respondents were categorised into four sections –



- Respondents whose primary language at home is English while that during education was vernacular. *Here n=0*
- Respondents whose primary language at home is English and that during education was English as well. *Here n=54*
- Respondents whose primary language at home is one of the vernacular languages and the medium of instruction during their education was also one of the vernacular languages. *Here n=95*
- Respondents whose primary language at home is one of the vernacular languages but the medium of instruction during their education was English. *Here n=203*

This research paper focuses on exploring the impact of different levels of engagement of social media on respondents in the “d” category – whose primary language at home is one of India’s

vernacular languages while their medium of education has been English.

### 3.4 Procedure

To establish their fluency of English, the respondents were asked to first rate their level of language fluency and additionally they were asked to express their views on the following questions:

Q1. Do you think English language has changed rapidly and if so, why do you think this has happened and what are your views on how social media may have impacted the transformation in the way we use English in formal settings? (please explain in about 50 – 60 words)

Q2. What are your views on the statement – “Social Media is making us UnSocial”

Q3. Why do you think people opt to be active on multiple social networking platforms or play video games? Please explain in 30 – 40 words.

Q4. Do you think it is ethical to be INCOGNITO while being online on various social media or while playing games? Please explain in 30 – 40 words.

Based on the responses the respondents were grouped into three categories

Group 1 - Good level of fluency

Group 2 - Average level of fluency

Group 3 - Below average level of fluency

The respondents in each of these group were then segregated based on their level of engagement on social media. Level of engagement on social media has been determined by using a three-level grading system viz., Low, Moderate and High. The criteria to ascertain level of engagement the following parameters were applied:

Table 4: Social Media Engagement Level

Parameters	Engagement Level		
	Low	Moderate	High
	1	2	3
Time spent on SM & Gaming	0.5 hrs - 3 hrs (per day)	3.5 hrs - 6 hrs (per day)	> 6 hrs (per day)
Rate of Posts	0 - 2 per day	3 - 6 per day	> 6 per day
Reactions Given on Posts	Sometimes	Regularly	Often / Very Often
Level of interaction on SM & Gaming	View & Exit	View & Respond	View & Engage in conversation

In order to quantify the level of engagement scores have been assigned to each participant. The maximum score possible is 12 and the minimum score possible is 4 (*range 4-12*).

Low = 4 – 6

Moderate = 7 – 9

High = 10 – 12

The total scores derived then determine an individual's level of engagement on social media.

The subsequent process was to enumerate how the above determined degree of engagement could impact the respondents' English language. There are various factors that could affect an individual's language fluency. Among those factors, social media is replacing the basic structure of English language by addition of several elements like altered vocabulary (Zahirrah Zainal, 2020), use of abbreviations (acronyms), emoticons and autofill (Saha, 2019). Additionally, there are four aspects that have been included in this research to determine the extent of transformation in language use – use of multi-language while interacting on social media, reliance on spell check and flouting tenets of English language grammar, spelling and punctuation. To identify and analyze these factors, the respondents were asked the following questions

- Q5. How often do you use social media lingo / altered vocabulary while communicating?
- Q6. How often do you use abbreviations or social media jargons like FOMO, LOL, ROFL etc?
- Q7. How often do you use emoticons while communicating?
- Q8. How often do you rely on the auto-fill / auto-suggestion feature while communicating?
- Q9. How often do you use multiple languages when communicating?
- Q10. How often do you rely on spell check while communicating?
- Q11. How often do you adhere (obey) to the rules of English grammar?
- Q12. How often do you adhere (obey) to conventional spellings in the English language when communicating?
- Q13. How often do you adhere (obey) to conventional punctuation norms of English when communicating?

The responses thus received were tabulated and categorized using a scale that could be indicative of the proportion of language transformation. The table mentioned below explain how the responses have been calculated.

Table 5: Scales Applied to Social Media Language

Social Media Factors	Level of Utility			
	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)
Use of altered Vocabulary	0	1	2	3
	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)
Use of Emoji	0	1	2	3
	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)
Use of SM Lingo	0	1	2	3
	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)
Use of Acronyms	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)

	0	1	2	3
Use of Informal Structure	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)
	0	1	2	3
Use of Multi Language	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)
	0	1	2	3
Rely on Spell Check / Auto Fill	Never (No Impact)	Rarely (Low)	Regularly (Average)	Often (High)
	0	1	2	3
Adherence to Vocabulary	Often (No Impact)	Regularly (Low)	Rarely (Average)	Never (High)
	0	1	2	3
Adherence to Grammar	Often (No Impact)	Regularly (Low)	Rarely (Average)	Never (High)
	0	1	2	3
Adherence to Punctuation	Often (No Impact)	Regularly (Low)	Rarely (Average)	Never (High)
	0	1	2	3
<i>Maximum Individual Score =</i>				<b>30</b>
<i>Minimum Individual Score = 0</i>				

Ultimately, a consolidated spreadsheet that presents an at-a-glance view of various impacting elements and their extent is presented in the following table. This then became the point of departure for conjecturing the transformation in the usage of English language among this specific group.

Table 6: Social Media Factors Impacting Language

English Language Exposure	Personal Language Fluency	Social Engagement Score (Range 4-12)	Media Level	Language Score (Range 0-30)	Behaviour
Primary Language at Home - Vernacular Primary Language during Education - English	Good Level	High 10-12		High SM Impact (22 - 30)	
				Medium SM Impact (13 - 21)	
				Low SM Impact (4 - 12)	
				No SM Impact (0 - 3)	
		Moderate 7-9		High SM Impact (22 - 30)	
				Medium SM Impact (13 - 21)	

		Low 4-6	Low SM Impact (4 - 12)	
			No SM Impact (0 - 3)	
			High SM Impact (22 - 30)	
			Medium SM Impact (13 - 21)	
			Low SM Impact (4 - 12)	
		No SM Impact (0 - 3)		
		Average Level	High 10-12	High SM Impact (22 - 30)
				Medium SM Impact (13 - 21)
				Low SM Impact (4 - 12)
				No SM Impact (0 - 3)
	Moderate 7-9		High SM Impact (22 - 30)	
			Medium SM Impact (13 - 21)	
			Low SM Impact (4 - 12)	
			No SM Impact (0 - 3)	
	Low 4-6		High SM Impact (22 - 30)	
			Medium SM Impact (13 - 21)	
		Low SM Impact (4 - 12)		
		No SM Impact (0 - 3)		
	Below Average	High 10-12	High SM Impact (22 - 30)	
			Medium SM Impact (13 - 21)	
Low SM Impact (4 - 12)				
No SM Impact (0 - 3)				
Moderate 7-9		High SM Impact (22 - 30)		
		Medium SM Impact (13 - 21)		
		Low SM Impact (4 - 12)		
		No SM Impact (0 - 3)		
Low 4-6		High SM Impact (22 - 30)		
		Medium SM Impact (13 - 21)		

			Low SM Impact (4 - 12)
			No SM Impact (0 - 3)

The scores received as per the above criteria were then cross tabulated against the responses received about the impact on individual's English language which was then split into four categories

- A. Language Upgraded
- B. Language Adapted
- C. Language Degraded
- D. Language Not Impacted

### 3.5 Ethics

Abiding by all ethical procedures, consent was obtained from all participants included in the study. To ensure participants' anonymity and arrive at unbiased results, all identifying information from the data was removed before commencing data evaluation.

### 3.6 Data Analysis

After entering and cleaning the data in Excel sheets, it was coded and then analysed using SPSS software (Version 16.0).

The analysis of data was done in two stages.

1. Uni-variate analysis.
2. Bi-variate analysis.

First, the simple frequencies of all variables were calculated so that it could provide a numerical representation for the distribution of particular responses from the survey. Frequency Analysis has been presented to clarify the demographic and sociographic details of the respondents. The main purpose of the uni-variate analysis was to get clear data without inconsistencies. To evaluate the language in the responses provided in the survey, Grammarly Premium was used. This was used to identify any inconsistency in or deviation from standardized English.

Binary Logistic Regression Analysis was used to determine the statistical significance for the independent variable. Wald Test has been used to determine statistical significance for the independent variable viz., language spoken at home and language used during educational years. The level of significance is explained in the result section.

### 3. Findings and Discussion

A Logistic Regression was performed to ascertain the plausible impact of language used at home and medium of education in school/ language spoken in school on the likelihood that there has been significant changes to participants' usage of English language. The logistic regression model was statistically significant,  $\chi^2(4) = 27.402$ ,  $p < .005$ . The model explained 33.0% (Nagelkerke R<sup>2</sup>) of the variance in language change and correctly classified 71.0% of cases. The students speaking

vernacular language at home were 7.02 times more likely to exhibit degradation in their language than that of students who speak English language at home. From these results it is seen that language at home ( $p = 0.005$ ), added significantly to the model/prediction, but language spoken at school ( $p = .799$ ) did not add significantly to the model. This information can be used to predict the probability of an event occurring based on a one unit change in an independent variable when all other independent variables are kept constant. For example, the table shows that the odds of language degrading are 7.06 times greater for student with vernacular language at home as opposed to students using English as their primary language.

**Table 7: Variables in the Equation**

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	Language at Home(1)	-.439	.681	.415	1	0.053	.645
	Constant	.216	.117	3.423	1	0.519	1.241

**Variables in the Equation**

		95% C.I. for EXP(B)	
		Lower	Upper
Step 1 <sup>a</sup>	Language at Home(1)	.170	2.449
	Constant		

a. Variable(s) entered on step 1: Language at Home.

Figure 8: Result of the Study

Based on the responses received as well as analysis of the same, a model is being proposed that could elucidate the distinct impact of various levels of engagement on social media on individual's English language. This model is created using the Decision Tree structure.

The Decision tree method can create models that are easy to comprehend and follow especially when there are multiple branches. (Tretter, 2003). A decision tree is a decision support tool that employs a tree-like model of outcomes and eventual consequences as well as the chance outcomes and their subsequent impacts. This display contains various controlled conditions that could have a bearing on the next progression. their possible consequences, including chance event outcomes, resource costs, and utility. It is one way to display an algorithm that only contains conditional control statements. (Lee, 2014)

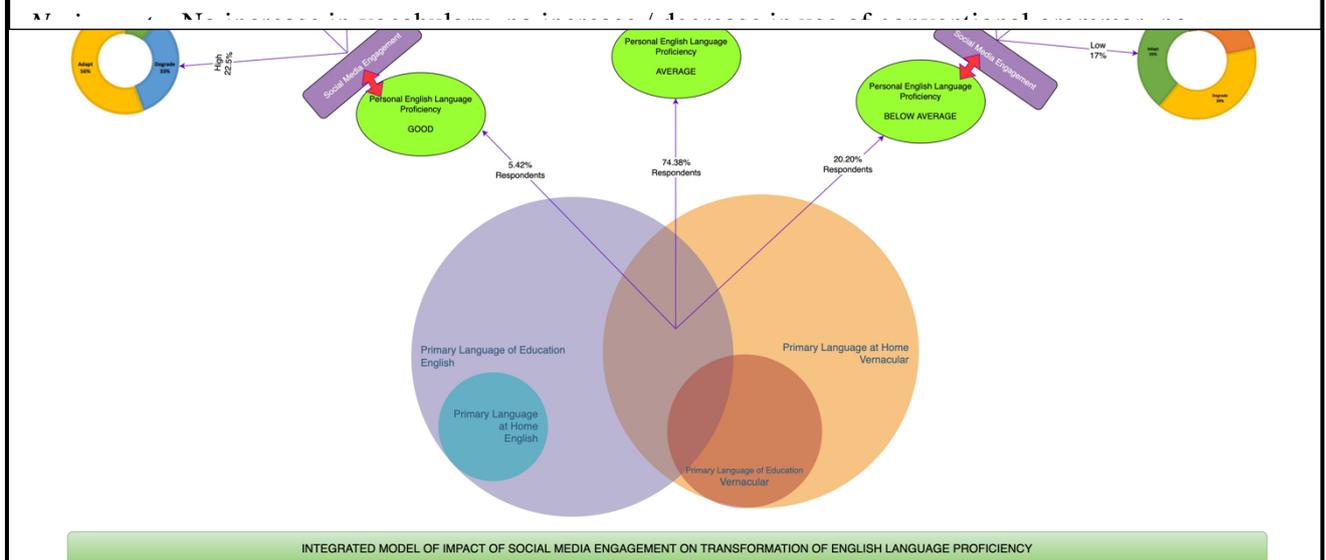
Decision trees function effectively by carrying out successive binary or even multiple branch splits. Major split happens at the first stage that separates or distinguishes different data groups. Later, each sub-group is then split and it continuous to split until the desired criteria is reached. This method and the result thereof can bring about a simplified and understandable decision rules. (Tretter, 2003).

### Explanation

*Language Upgrade* – Increase in vocabulary, use of conventional grammar, usage of proper spelling, improved language usage

*Language Degrade* – No increase in vocabulary, decrease in use of conventional grammar, improper use of spellings and decline in language usage

*Language Adapt* – slight increase in vocabulary, conscious about using appropriate language in different scenarios (formal and/or social media)



Employing decision tree technique in this research has yielded distinct verifiable results about the impact of having different levels of social media engagement on one's English language proficiency.

1. *Language Upgrade* – Maximum upgrade of language happens if an individual's personal language is good and his/her social media engagement is low. On the other hand, least upgrade of one's language occurs when social media engagement is high among those whose personal language is

good. Though every level of engagement shows some percentage of upgrade, there is no upgrade observed among people whose language is graded as below average and social media engagement is noted to be high.

(Range = 0% to 27%)

2. *Language Degrade* – From across all the categories, the maximum range of impact is that of language degrading among users with a range from 29% to 86%. As per the observed data, maximum degrade happens among individuals whose personal language fluency is poor (low) and their social media engagement is high and the least degrade occurs when a person with average language articulation has high interaction on social media.

(Range = 29% to 86%)

3. *Language Adapt* – It has been observed from the response received that individuals with below average language skill are unable to adapt to using English language if they have high social media engagement. On the other hand, people with good language fluency engage highly on social media, they are able to adapt to using English language efficiently.

(Range = 0% to 56%)

4. *No Impact on Language* – The highest percentage of no impact on an individual's language usage is seen among the group whose language has been graded as below average and have high social media presence. Conversely, people with high social media presence show having some form of impact; whether they have either good or average personal language proficiency.

(Range = 0% to 14%)

## Discussion

This study intended to understand the association between the level of engagement on different social media and the transformation on an individual's usage of English language. The holistic insight revealed that there is significant association between the two aspects. Choosing to depart from the conventional methods, this study has brought forth an integrated model based on the decision tree method that is a sturdy statistical tool that has aided in classifying, predicting and interpreting the data collected. The proposed model has helped in simplifying the possible complex association between the multi-variables and eventual target variables by allowing the division of the primary input variables into categorical subgroups. Easy to comprehend and illuminate the effect on an individual's language transformation, this non-parametric approach manages to do away with distributional assumptions, data imputation or transformation and is robust to including data outliers. (Song, 2015). This model presents clarity about the percentage probability of shift in an individual's language usage under various circumstances.

Though there are various empirical studies that state that social media has impacted English language, most studies indicate how English as a language has changed. Au contraire, this study focuses on how social media engagement could have a bearing on an individual's English language usage. Additionally, previous esteemed researchers have addressed the strong positive impact of social media in

improving English proficiency; especially among individuals from non-native English speaking countries. Studies have also revealed that social media can be effective in enhancing L2 proficiency (Jahromi, 2020). Progressing on these findings, this study also considers a strong possibility that high social media engagement would have a negative impact, an adaptive impact or even no impact on a person's language proficiency. In a multi-lingual country like India, where there is a strong mother tongue influence on the acquisition of English language, this study can be extended to countries where English is second language.

## 5. Conclusion

While this particular study has been able to categorically establish that the levels of social media engagement can have different types of impact on one's English language usage; especially among people whose primary language is one of the many vernacular languages spoken in India and their language of education has been English. This method can be widened to include the other two categories mentioned in this study – "b" where respondents' primary language at home is English and their primary language during education is English as well as "c" wherein the primary language at home and during education has been vernacular.

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## CONFLICTS OF INTEREST

There are no conflicts to declare.

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