# DIGITAL AGE PHONOLOGICAL VARIATIONS IN PAKISTANI ENGLISH: A SOCIOLINGUISTIC ANALYSIS OF MODERN PRONUNCIATION PATTERNS

**Syed Faisal Shah**
Department of English Language and Literature
**Minhaj University Lahore**
Miss Fatima Tuz Zahra
PhD Scholar Air University Islamabad, Pakistan, Lecturer Minhaj University Lahore
**Email:** Fatematuzzehra@gmail.com

**ABSTRACT**
*In the context of the digital age, this study examines the phonological features of Pakistani English (PakE), emphasizing the ways in which digital communication, indigenous languages, and societal dynamics affect pronunciation patterns. PakE, which is acknowledged as a non-native but quickly developing variant of English, has distinct segmental and suprasegmental characteristics influenced by native languages including Pashto, Punjabi, and Urdu.*

*Mother languages were used to categorize data from University of Sargodha BS English students. Group conversations and interviews were transcribed in order to analyze phonological aspects, including consonants, vowels, and stress patterns, using a descriptive-analytical approach. The study finds features including vowel mergers, monophthongization of diphthongs, substitution of plosives for interdental fricatives, and changed stress patterns that depart from Standard British English.*

*Although exposure to international English dialects is notably increased by the digital environment, local phonetic influences continue to exist, resulting in a hybridized linguistic identity. Thus, in a time when English language training and multimedia interaction are the norm, PakE is a lively topic for sociolinguistic research.*

*In addition to highlighting Pakistani English's unique phonological character, the results have educational ramifications for English Language Teaching (ELT) in multilingual settings. The study adds to the expanding body of knowledge on World Englishes and highlights the need of identifying and incorporating regional variations of English in academic and professional contexts.*

***Keywords****: Phonological variety, stress patterns, digital linguistics, sociophonetics, and the influence of indigenous languages in Pakistani English*

**Introduction**

Native languages like Urdu, Punjabi, Pashto, and Sindhi have influenced the development of Pakistani English (PakE), a regional variant of the English language. In contrast to Standard British English (SBE), PakE currently exhibits a rich blend of segmental and suprasegmental elements that were historically shaped by British colonial control and maintained through institutional usage. Given that English is the de facto official language of Pakistan and is widely used in academia, the media, and government, the country's varied sociolinguistic landscape is reflected in the way English is localised there.

Digital platforms including YouTube, Netflix, TikTok, and Instagram have become the most popular means of international communication and entertainment in the twenty-first century. These websites introduce Pakistani users to a variety of native and non-native English accents and speech patterns, particularly among urban youth. Digital media offers immersive, casual, and frequently repeated aural experiences, in contrast to traditional classroom settings. As a result,

hybrid forms of articulation that defy accepted linguistic standards are reshaping speech habits outside of the classroom.

Pronunciation, or phonology, is a crucial aspect of intelligibility and identity in any language variety. In the case of PakE, prior research has explored phonological features influenced by native languages, but has not sufficiently examined how digital exposure modifies these patterns. The influence of short-form video platforms, global gaming communities, and binge-watching habits on speech—particularly among younger, urban populations—demands fresh scholarly attention.

### Objectives

The study's goals and objectives consist of:

- To analyze the impact of digital media on segmental and suprasegmental pronunciation in urban Pakistani English.
- To examine correlations between age, digital media usage, and L1 interference in pronunciation.
- To identify emerging hybrid phonological patterns and their role in sociocultural identity construction

### Research Questions

The following are the specific study questions:

- How has digital media exposure influenced the phonological features of Pakistani English?
- Does age and frequency of media usage reduce L1-influenced pronunciation patterns?
- What hybrid pronunciation traits are emerging, and how are they socially or culturally significant?

## 3. Literature Review

### 3.1 Traditional View of Pakistani English

Pakistani English (PakE) has long been a focus of linguistic inquiry, with scholars such as Rahman (1990), Mahboob and Ahmar (2004a, 2004b), and Baumgardner (1993) laying the foundational understanding of its phonological structure. These classical studies emphasize the heavy influence of native languages—particularly Urdu, Punjabi, Pashto, and Sindhi—on segmental and suprasegmental aspects of PakE. Consonantal patterns such as the substitution of interdental fricatives /θ/ and /ð/ with dental stops /t/ and /d/, and retroflex articulations like [ʈ] and [ɖ] replacing alveolar plosives, are common (Rahman, 1990).

On the vowel level, Mahboob and Ahmar (2004a) observed the absence or reduction of schwa /ə/, which is often replaced by a full vowel, typically /ʌ/, contributing to a syllable-timed rhythm rather than the stress-timed nature of Standard British English (SBE). Diphthongs tend to be monophthongized, and vowel length distinctions are often neutralized (Baumgardner, 1993). Stress placement also differs, with a tendency toward final syllable stress, influenced by Urdu prosody. These observations established the dominance of L1 phonological transfer in shaping the phonetics of PakE.

However, these earlier frameworks largely viewed phonological variation as static and grounded in regional or sociolectal factors, ignoring the dynamic, globalized influences emerging from digital communication and exposure to diverse media.

### 3.2 Digital-Age Phonological Shifts

One of the main causes of phonological shift in the digital age is media exposure. Research from similar language contexts, including Singapore, Nigeria, and India, has shown how digital

immersion affects pronunciation patterns. According to Gargesh (2004) and Sailaja (2009), urban youth's vowel production and intonation patterns in Indian English become more variable as their exposure to Western media increases. Accent levelling, which is the gradual homogenisation of pronunciation across various dialects or varieties due to constant contact with standardised or dominant forms, was highlighted by Dyrenko and Fuchs (2018) as a result of global media's contribution to phonetic blending and the reduction of local accent features in Nigeria.

In Singapore, Deterding (2005, 2007) noted that younger speakers' intonation flattens and emergent vowel changes are influenced by American-English-dominant text and online contact. These results demonstrate how international internet platforms speed language encounter and operate as unofficial settings for identity development, linguistic imitation, and adaptation.

### 3.3 Pakistani Context

YouTube, Instagram, TikTok, and Netflix have changed the language landscape in Pakistan, especially among young people living in cities. Learning English is no longer restricted to official contexts like textbooks or classes. Rather, regular interaction with vloggers, influencers, and short-form video producers has infiltrated informal conversation with English, frequently in hybrid or globally inspired forms.

Content creators such as Pakistani vloggers, beauty influencers, and tech reviewers often mix local lexicon with Western pronunciation models, unintentionally contributing to phonological normalization of certain English sounds.

This informal phonetic input, often repeated and imitated, is especially impactful for younger audiences who are still acquiring pronunciation norms. Anecdotal and classroom-based observations suggest a rising trend of Pakistani English speakers modifying their intonation patterns and adopting media-influenced pronunciations of vowels and consonants, particularly in urban areas. However, systematic research exploring this media-driven shift remains minimal.

### Research Gap:

Traditional phonological studies on PakE have largely ignored the influence of digital media and new communication habits on pronunciation trends, especially among youth. This study addresses this gap by exploring how media consumption patterns correlate with phonetic shifts in Pakistani English.

### Gap Identification:

While traditional research has thoroughly explored L1 influence on PakE, the **impact of digital media on phonological development remains under-researched**. There is a lack of empirical studies focusing on how YouTube, TikTok, and other social platforms are actively shaping segmental and suprasegmental features of English pronunciation in Pakistan. This study seeks to address this gap by investigating media-induced phonological variation, particularly among digitally immersed urban youth.

### 4. Theoretical Framework

This study uses Lave and Wenger's (1991) Communities of Practice (CoP) theory to investigate phonological variance in Pakistani English in social and digital contexts. According to CoP, learning is a social process that happens when members of a group actively participate in common activities. These communities are shaped by shared interests, objectives, and consistent engagement in addition to geographic proximity.

When it comes to language use, CoP describes how speakers' frequent interactions shape phonological conventions and pronunciation patterns. In order to develop identification and a sense of belonging, people modify and adopt language forms to fit in with the group. Because phonetic behaviour alters subtly but permanently with frequent exposure and interaction, this idea is especially pertinent to pronunciation.

New types of communities of practice (CoPs) have arisen with the growth of digital communities, including TikTok producers, YouTube followers, online classes, and influencer audiences. Users are continuously exposed to a variety of pronunciation models on these sites, which serve as "learning zones." Even unconsciously, people start internalising new phonological rules through observation, imitation, and feedback.

This study uses CoP as a strong sociolinguistic lens to examine how pronunciation in Pakistani English is changing due to social engagement in online communities as well as formal schooling and local language influence. It presents pronunciation change not as a solely individual phenomena but as a societal, identity-driven process.

## 5. Methodology

### 5.1 Research Design

This study combines qualitative and quantitative methods in a mixed-methods research design. Interviews and spontaneous speech samples are used in the qualitative component to record complex speech patterns and sociocultural impressions. Phonetic qualities and the relationship between exposure to digital media and pronunciation characteristics can be statistically analysed thanks to the quantitative component. In order to provide a thorough examination that combines phonological accuracy with sociolinguistic context, this design was used.

### 5.2 Participants

Purposive sampling was used to pick 36 individuals in total. Every participant had rigorous university-level English language training and was a bilingual speaker of Urdu and English or a regional language and English. Both genders were equally represented among the participants, who ranged in age from 18 to 28. Students and young professionals from major cities including Lahore, Islamabad, Karachi, and Sargodha were included in the sample. Frequent usage of digital sites like YouTube, TikTok, Instagram, or Netflix (at least two hours per day) was a crucial selection factor. This group was perfect for examining how digital media has influenced recent phonological changes in Pakistani English.

### 5.3 Tools and Procedure

Semi-structured interviews, reading assignments, recordings of unplanned speech, and online questionnaires were among the methods used to gather the data. Participants answered questionnaires regarding their media consumption patterns, read a few chosen English-language texts, and participated in open discussions. For analysis, all voice samples were recorded using top-notch audio equipment.

In-depth phonetic analysis was performed using Praat software, which measured stress patterns, consonant articulation, and vowel formants. SPSS software was used for quantitative analysis and to find associations between digital exposure and speech characteristics.

This methodology allowed for a thorough investigation of how digital engagement is changing the phonology of Pakistani English in the modern era. All participants gave their informed consent, the study was approved by the appropriate academic ethics committee, and anonymity was

maintained throughout by using codes rather than names. Participants were also made aware of their right to withdraw at any time without incurring any penalties.

## 6. Results & Discussion

The phonological data gathered from surveys, interviews, and speech tasks is presented and interpreted in this part. To represent segmental and suprasegmental changes, the impact of digital media, and the formation of sociolinguistic identities, the results are arranged thematically.

### 6.1 Segmental Changes (Consonants & Vowels)

The pronunciation of retroflex consonants ([ʈ], [ɖ]) and interdental fricatives (/θ/, /ð/) showed a distinct age split. Participants who were older and had less experience with social media frequently replaced /θ/ with [t] and /ð/ with [d], such that this is pronounced as dis and think as tink. On the other hand, younger individuals demonstrated a noticeable movement towards the proper articulation of these sounds, particularly those who were regularly exposed to English-speaking YouTubers. In controlled activities, more than 68% of participants between the ages of 18 and 22 utilised near-native approximations of /θ/ and /ð/.

.The creation of vowels also showed the influence of the digital age. Diphthongs like /eɪ/ and /aɪs/, which are often monophthongised in PakE, were more easily controlled by younger speakers. For instance, the word *face* was pronounced as /feɪs/ rather than the traditional /fes/. Formant analysis via **Praat software** revealed broader vowel space in younger speakers, indicating a shift toward more distinct vowel categories—consistent with exposure to Standard English accents on platforms like YouTube and Netflix.

### 6.2 Suprasegmental Features (Stress & Intonation)

Significant variation was observed in **stress patterns and intonation contours**. Traditionally, Pakistani English speakers follow Urdu's rhythm, often placing stress on the final syllable. However, in spontaneous speech, younger digital users demonstrated greater alignment with native English **stress-timing**, placing stress on content words and using **rising intonation for questions**, even in declaratives used for emphasis (*"That's what I SAID?"*).

Interestingly, speech samples from participants active on TikTok showed a tendency toward **performative intonation**, mirroring the exaggerated rise-fall patterns used by English-speaking influencers. These prosodic features represent **emerging digital-age suprasegmentals**—blending affective expression with speech rhythm in ways not seen in older PakE models.

### 6.3 Media Influence

Quantitative analysis using **SPSS** revealed a statistically significant correlation ($r = 0.61$, $p < 0.01$) between **daily time spent on English-dominant platforms** and the use of standard-like pronunciation. A breakdown of platform impact is shown below:

| Platform | Avg. Daily Use (hrs) | Influence on Pronunciation |
|---|---|---|
| YouTube | 2.8 | High (vowel accuracy, stress control) |
| Netflix | 1.6 | Moderate (intonation, rhythm) |
| TikTok | 2.1 | High (intonation, lexical borrowing) |

**YouTube** was the most impactful, especially for segmental accuracy. Exposure to pronunciation tutorials, vlogs, and reaction videos introduced consistent input that helped shape users' production of difficult sounds, such as diphthongs and aspirated stops. **TikTok**, while less structured,

influenced **intonation styles** and **lexical choices**, reflecting the performative, informal style prevalent in the app's content.

**6.4 Identity & Sociolinguistic Functions**

The interviews revealed that many participants used **hybrid pronunciations** to navigate between different social roles. For example, one university student explained:

*"When I'm presenting in class, I try to sound more like the British podcasters I follow... but with friends, I just mix it up—it's not that deep."*

This type of **phonological code-switching** enables speakers to adapt to formal (academic, professional) and informal (peer, digital) contexts.

Correct pronunciation is no longer the only consideration; it has evolved into an identification sign. For example, students from public colleges kept more local phonetic traits but made selected adaptations when in mixed-language or online contexts, whereas students from elite universities were more inclined to conform their pronunciation to international standards. These mixed phonologies strike a balance between language awareness and social affiliation, reflecting both desire and authenticity. In the words of one participant:

"They accuse me of being false if I talk too nice. I don't feel confident at work if I come across as too Desi.

Pronunciation is so closely related to identity negotiation, social mobility, and group alignment in Pakistan in the digital era, particularly in online communities where voice is closely linked to performance and image.

The results verify that Pakistani English's phonological landscape is changing as a result of digital media. Speech patterns are getting more context-sensitive, suprasegmental traits are changing, and segmental accuracy is rising. A larger tendency in language use known as "glocalization," in which local identities and global influences blend in flexible, adaptive ways, is indicated by the incorporation of digital-age standards into local linguistic practices.

**7. Implications**

In particular, the study's findings have significant ramifications for curriculum design, evaluation, and pronunciation pedagogy in Pakistani English language teaching (ELT). According to the phonological changes seen in younger speakers in the digital age, traditional techniques of teaching pronunciation that are solely based on Standard British English (SBE) might no longer accurately represent students' actual linguistic reality.

With the growing number of Pakistani students using international digital platforms to learn English, their pronunciation is influenced by a variety of sources, leading to hybrid phonological forms. It is better to acknowledge these forms as identity-driven and functional variations of Pakistani English rather than as mistakes. In order to promote intelligibility and recognise variety, a more inclusive and realistic pronunciation curriculum is required.

To give teachers the resources they need to comprehend and instruct students with a variety of accents, teacher preparation programs must change. Instead of imposing strict rules, educators can help students learn how to pronounce words in a way that is both universally understandable and appropriate for the situation. Hybrid accents, which combine local influences with exposure to international media, should be evaluated on their communication efficacy rather than how closely they resemble native standards.

In order to take into account these sociolinguistic facts, frameworks for evaluating pronunciation should also be modified. Intelligibility, fluency, and adaptability are more important in a spectrum-

based approach than the antiquated binary notion of "native vs. non-native" pronunciation. Lastly, curriculum development should be guided by these observations, promoting a change in Pakistani English education towards a more digitally integrated and sociolinguistically aware approach.

## 8. Conclusion

The purpose of this study was to investigate how exposure to digital media is changing the phonological landscape of Pakistani English (PakE), especially among young people living in cities. The goals were accomplished and all three research questions were answered. The study showed that segmental and suprasegmental pronunciation in PakE is greatly influenced by digital media, particularly sites like YouTube and TikTok.

Younger, digitally active speakers showed greater approximation to native-like features, including improved articulation of interdental sounds, clearer vowel distinctions, and more varied intonation patterns.

The **first research question**—how digital exposure affects PakE phonology—was clearly answered through both acoustic and statistical data. The **second question**, regarding age and frequency of usage, revealed a strong correlation: younger participants with higher digital engagement showed reduced L1 interference. The **third question** uncovered **hybrid phonological patterns** that function as social tools for navigating identity across academic, professional, and digital spaces.

The study contributes to **sociolinguistics and World Englishes** by illustrating how global digital environments give rise to new, localized pronunciations that challenge the binary of "standard" vs. "non-standard" English. It highlights the need for dynamic, inclusive models of English teaching and assessment that reflect actual language use in the 21st century.

Future research should explore **regional comparisons** within Pakistan or conduct **longitudinal studies** to trace how these phonological changes evolve over time. The intersection of digital culture and English phonology remains a rich, underexplored area for sociolinguistic inquiry.

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