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# Artificial-English: A Phonetic Orthography Framework for Eliminating Irregularities in English Pronunciation

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*Abstract:* Although it is said that the English language enjoys the position of a global lingua franca, its orthographic system is extremely irregular and layered over centuries of historical change. It has spelling rules that features deep orthography with GPCs that tend to be inconsistent and irregular. The work of historically-sound change, the borrowing of several different languages, and the maintenance of antique forms of spelling have resulted in the existence of a system wherein the written form of a word often does not match their verbal pronunciation. Consequently, they have to memorize complicated spelling rules and high amounts of exceptions as opposed to using systemic phonetic information. This orthographic opacific may place a heavy cognitive load on both the native speakers and the English as a Second Language (ESL) learners and usually results in stubborn pronunciation problems, spelling mistakes and lack of reading fluency. In order to solve these issues, the paper presents the Artificial-English (AE) system, which is a deterministic phonetic orthography that serves to reduce ambiguity in the pronunciation and spelling of English words. AE framework methodically eliminates silent letters, recreates missing phonetic ones and creates an unequivocal relationship of one phoneme to one spelling. Unlike the conventional conventions of English spelling, AE has a structured vowel duration grammar which has single vowels with the short vowel sound and the double vowels with the long vowel sound. This is a simple but coherent system, which enables the reader to simply expect the acoustic length of vowels out of the written expression.

In addition, AE integrates specialized phonetic characters such as ʌ, æ ,ɔ ,ə ,θ and ð to represent sounds that are otherwise irregularly represented using standard English spelling. The AE model keeps the pronunciation deterministically predictable given written text by giving each phoneme a fixed and stable graphical representation. The paper includes the theoretical basis of the AE system, the description of its orthographic conventions, and the examples of the practice application of the AE system (commercial brand names and multilingual signs) through transliteration. In addition, the research examines the possibilities of AE as a pedagogical resource to teach ESL, the ability to simplify the training of pronunciation, decrease phonological ambiguity, and cross-linguistic phonetic mapping in international communicative environments.

***Index Terms*** - Phonetic Orthography, Artificial-English, Grapheme-Phoneme Correspondence, ESL Pedagogy, Spelling Reform, Orthographic Depth Hypothesis.

## I. INTRODUCTION

The English language has emerged as the international language in terms of communication in education, science, technology, and international trade. Nonetheless, English has proven to be a great challenge to the learner of the English language by virtue of the inconsistency and the historical stratification of its writing system. In contrast to most phonetic languages, like Hindi, Telugu, or Spanish, English spelling is very irregular and written representation is equal to the speech. There are silent letters, unexpected vowel accent, and the ability to have a plural representation of the same phoneme. All these deviations have been mostly

due to historic linguistic processes, including the Great Vowel Shift and the influences of Norman French and Latin and retentions of archaic spellings that no longer reflect contemporary pronunciations. As a result of this, in many cases, learners have to be able to memorize complicated spelling patterns instead of depending on expected phonual patterns.

The English orthography has been attributed with great complexity and has been a subject of intense research in linguistics. One phoneme can be spelled using more than one grapheme, and many phonetic outputs can be a result of one grapheme, which is used in different words. As an illustration, /f/ sound can be observed in the following words, fish, phone, rough, but the spelling of all words is different. On the same note, the combination of letters, ogh, can be sounded differently in thought, through, tough, and in though. These discrepancies cause confusions among the learners and promote permanent spelling and articulation mistakes. With the growing use of English as a global language, these orthographic issues are relevant to language education, literacy growth as also to the successful communication between language prevalent in different language settings.

Cognitively though, such abnormalities augment the mental effort to decode written text. The Orthographic Depth Hypothesis espoused by Katz and Frost (1992) asserts that languages with a great depth of orthography would have their readers depend on the lexical memory and use of context to the determinant of a phonological decoding rather than basing on the phonological context. It is necessary to mean that students are required to commit an enormous number of word-specific pronunciations rather than implementing phonetic rules in the same manner. Consequently, it leaves the process of learning to be more challenging and time consuming especially among those who are learning English as a second language (ESL). Most ESL students have the tendency to pronounce words according to the spelling and the pronunciation may not be accurate at most. As an example, a student can sound out the silent k in knife or the silent b in debt, which is not the correspondence of the orthography and phonology.

These problems demonstrate the necessity of other methods, which could help go through the process of clearer phonetic perception of English words. Although a number of phonetic transcription systems are present (including the International Phonetic Alphabet IPA), it usually is seen as complicated and hard to learn by a general student. The symbols of IPA require specialized learning and are most often employed in the academic linguistic context as opposed to that of regular learning. This has necessitated a simplified and systematic model of a framework that can capture the pronunciation in the English language in a manner simple and easily comprehensible to the learners.

To address these issues, the present paper suggests use of Artificial-English (AE) system a systematic phonetic orthography that can be used to create a more straightforward and consistent connection between the written orthography and vocal repetition. AE is not a substitute of the traditional spelling system of English, but is to be viewed as a complementary framework: a lucrative guide where learners can store the exact phonetics of words without actually denouncing the regular orthographic system they are already exposed to. Erasing silent letters and providing missing phonetic cues to English pronunciation, as well as implementing consistent rules regarding the spelling of vowels, AE aims to minimize the ambiguity that renders the English pronunciation so hard to decode on the written page.

The future of the Artificial-English (AE) model does not rest in legislative mandates or institutional requirements, but in something far more urgent the lived struggle of present and future generations trying to master a language that was never designed to be easy. For learners today, English spelling remains one of the most demoralizing early obstacles, a chaotic inheritance of centuries of linguistic borrowing from French, Latin, Greek, and Germanic roots, where rules exist only to be broken and exceptions outnumber patterns. Grammar adds another layer of difficulty, confronting present-day learners with irregular verbs, shifting tenses, and article systems that resist logical memorization and demand years of repeated exposure to even partially internalize. If this is the burden carried by the current generation, the question becomes what kind of English the next generation will be asked to learn and whether it is reasonable to pass down the same structural inconsistencies unchanged. Future generations, growing up in an increasingly multilingual, digitally connected world, will have neither the patience nor the necessity to wrestle with a language frozen in its historical imperfections. The AE model, therefore, is not a legislative project it is a generational responsibility, a chance to hand forward a version of English that is learnable, logical, and built for the world that is coming, not the world that has passed.

### 1.1 Motivation for a Phonetic Orthographic System

The reasoning behind the evolution of phonetic orthographic framework is the unrelenting challenges that have been encountered by both the ESL learners and the native speakers in comprehending the pronunciation of English as given in written form. Students who have years of studying the spelling rules

and the exception in pronunciation do not know how to deal with the new words in many educational settings. Lack of consistency of English spelling usually acts as a deterrent to the learners and makes the acquisition of the language slow. A system, which will be able to directly relate the written forms to the sounds, may make the process of learning much easier, as well as enhance the precision of pronunciation. In languages where the transmission of sound to symbol is phonetic, a sound-symbol relationship is direct and predictable, in that a learner who understands the alphabet can correctly pronounce an unknown word on the first attempt on a failure rate of most. The consistency is not available in English, however. A phonetic value can have several phonetics as seen in a letter, which could have different phonetic values; the letter a, for example, yields totally distinct sounds when used in cat, cake, car, and about. Instead of figuring out words on the basis of phonological logic, the learners are exposed to cope with this variability by rote learning. It is this vagary which is the matter on which AE attempts to effect a remedy, by proposing a Sunday School of phonetic conventions, which will repurchase the valuable and reliable service of a correspondence between spelling and sound.

The other significant reason why people are motivated to use AE is the necessity to eliminate the linguistic gaps among language strangers. Considering that English is spoken worldly, it tends to be spoken with different accents and phonological meanings. Such variations may cause confusion especially when the pronunciation does little to match those provided in normal standards. A phonetic orthographic guide like AE might act a universal guide which ensures that speakers in various linguistic backgrounds are able to read pronunciation in a way that is more uniform.

### 1.2 Overview of the Artificial-English (AE) Framework

The Artificial-English (AE) system is developed based on the conception of phonetic determinism, which is to say that each written sign is associated with a specific sound, which is articulated. The systematic model of vowel representation is one of the main elements of AE. According to this system, the short vowel sounds are indicated by single vowels, and the long vowel sounds are indicated by the double vowels. Such a basic rule helps to identify the duration and pronunciation of vowels without any confusion in the reader. As an example, a short sound of the vowel can be represented by one letter, whereas an extended one sounds may be doubled.

Beyond vowel standardization, AE extends its phonetic clarity through a carefully selected set of specialized characters. Rather than labeling these as mere symbols, they are better understood as precision tools each one assigned to a sound that standard English spelling handles inconsistently or not at all. Characters such as ʌ, æ ,ɔ ,ə ,θ and ð are drawn into the AE inventory specifically because they address recurring points of confusion: sounds that learners frequently mispronounce precisely because conventional spelling offers no reliable guide. By anchoring each of these sounds to a fixed, unambiguous grapheme, AE removes the need for the irregular multi-spelling workarounds that standard English relies on, and in doing so, tightens the correspondence between what a learner reads and what they are expected to say.

The other factual element of the AE is the removal of silent letters and unnecessary orthographic features. In most English words, there are letters written in the spelling yet are not pronounced and this is a setback to non-native learners. AE evidently eliminates these unnecessary complications in order to produce a cleaner and more reasonable spelling arrangement. An example would be a word such as write or knife which would be simplified to reflect only the sounds that are actually pronounced.

### 1.3 Practical Applications of AE

The Artificial-English framework also has some practical applications in addition to the theoretical design. The possible domain of application is ESL education, where AE may be used as a guide to pronunciation, giving learners the opportunity to learn the phonetic pattern of the new words in the shortest time possible. AE will be able to minimize misinterpretation because it will give a stable spelling-sound correspondence leading to better pronunciation.

The other potential use is in business branding and signage. Numerous international brands are based on names that are of English origin, which might not be properly pronounced by those who are not natives. Such situations may be achieved through AE transliteration where phonetic clarity can be used so that the pronunciation of brand names remains constant across the linguistic groups. This would be handy especially in global marketing, tourism and bilingual programs.

Moreover, AE can play the role of cross linguistic phonetic mapping which enables the speakers of other languages to perceive English accentation easier. AE will be able to serve as an intermediate system that

will help to overcome the discrepancies between sound systems in the languages since it offers a standard phonetic representation.

## II. LITERATURE REVIEW

### 2.1 The Orthographic Depth Hypothesis and Cognitive Load

The connection between the orthographic system of a language and the mental effort needed to learn to read and pronounce has received extensive research in linguistic and pedagogic studies. A theory that has been the most influential in that region is the Orthographic Depth Hypothesis that was presented by Katz and Frost (1992). According to this theory, there is a difference in transparency between languages in terms of aspects of spelling, and this very transparency determines the ease with which the learner can decode written form. Grapheme to phoneme correspondences (GPC) are very predictable in shallow orthographies like Spanish or Finnish, or Telugu. The letters or letter combinations are always associated with a given sound and therefore the learners can easily acquire phonological decoding. Consequently, the process of acquiring reading in such languages proceeds quite fast and with a few pronunciation mistakes.

By contrast, English is typical of deep orthographies, in which the spelling-pronunciation correspondence is very irregular. One phoneme can be presented by several graphemes, and even the same grapheme can be used to denote a variety of phonemes, depending on the situation. As an example, the sound /f/ may be represented as f in fish, ph in phone or gh in rough. Equally, the /ough/ combination of letters may yield a number of different sounds in terms of pronunciation in the words though, through, tough and thought. Such inconsistencies pose a great burden on the cognitive load on the side of the learner because they are not able to rely on phonological decoding only but memorize word-specific pronunciation patterns.

Share (2008) also added that most of the available research on the reading development has been excessively Anglo-centric, addressing English as a paradigm and neglected the reality that the orthographic system of English is abnormally complex in relation to most other languages. Children in more transparent languages tend to reach the basic level of reading in a less amount of days of formal education. But in English speaking situation, it might take a number of years before learners can master irregular spelling patterns and spelling exceptions. The role of orthographic depth in the development of literacy is also supported through the empirical studies. Seymour, Aro and Erskine (2003) carried out a cross linguistic study on the acquisition of reading in several European languages in large scale. Their results showed that students who were taught shallow orthographies showed near-perfect accuracy in their decoding in the first year of learning how to read. However, the progress of English speaking learners was much slower, showing the difficulty of the English spelling rules.

The cognitive load in the case of English as a Second Language (ESL) learners can be even bigger. The expectation of most of the learners who learn English is phonologically based on their mother tongues. In cases where English spelling does not comply with regular phonetic patterns learners will seek to approach pronunciation of words as they are written and thereby make systematic errors. An example of it is the silent letters k in the word knife or b in the word debt; this, in most cases, leaves a learner puzzled because he/she thinks that every letter written has to be pronounced. These inconsistencies underline the shortcomings of the English orthography as a phonetic reminder and support the necessity of using some additional frameworks offering the more explicit pronunciation hints. All in all, the Orthographic Depth Hypothesis gives a sound theoretical premise in the way it explains the possibility of other orthographic representations. The theory overcomes problems associated with conventional development that the deep orthographies are harder to learn and slower in developing literacy, and contributes to the discussion that simple or phonetized systems might produce better reading and pronunciation learning results.

### 2.2 Historical Attempts at Orthographic Reform

Efforts to simplify English spelling are far from a modern concern. Since time immemorial, linguists, educators, and language reformers have recognized the inefficiencies of English orthography and put forward various proposals to bring spelling closer to speech. Among the earliest and most influential of these figures was Noah Webster, whose work in the early nineteenth century laid the groundwork for a distinctly American approach to the written language. Driven by a desire to standardize and modernize English, Webster advocated for simplified spellings that stripped away what he saw as unnecessary complexity changes that gave American English some of its most recognizable divergences from British conventions, such as color for colour, center for centre, and defense for defence. While these reforms succeeded in reducing a degree of transatlantic variation, their scope remained narrow. They addressed

surface-level inconsistencies in spelling conventions without confronting the deeper phonetic irregularities that make English pronunciation genuinely difficult to predict from the written form.

In the twentieth century, more radical reform moves were made. A good example is the Initial Teaching Alphabet (ITA) founded by Sir James Pitman in the year 1961. The ITA also extended the English alphabet by adding 44 characters, which reflects the number of phonemes used in the English speech which is estimated to be 44. Introducing a one-to-one relation between symbols and sounds, ITA aimed at simplifying the teaching of early literacy and assisting children to develop an understanding of sounds in a more efficient way. Program testing of ITA in classrooms had recommended results at the start. Research indicated that children who were taught how to read through the ITA system would tend to acquire decoding in a shorter time as compared to those taught with the use of regular orthography in the English language. Nevertheless, as much as these initial successes were experienced, the system was experiencing serious challenges. The biggest one was the transition problem: when students got accustomed to ITA system, they were eventually forced to shift to the traditional system of English spelling, which was radically different in contrast to the phonetic system that they had become acquainted. This change brought about confusion and negated the sustainability of the approach over the long term.

There have been other proposals of orthographic reforms such as simplified alphabets in English and phonetic spelling. Nevertheless, the larger part of these attempts were not greeted with approval as the idea of changing the conventional rules of spelling was greatly tied to the cultural and historical background. The English spelling is so intertwined with literature, education and general communication that making widespread changes to it is an uphill task. Irrespective of these problems, successive proposals of orthographic reforms show that the inherent weakness of English spelling has always been acknowledged. Although past reforms have been more or less successful, they all point to the importance of having in place the systems that will allow to decrease the level of orthographic complexity, without stopping the effective use of standard English.

### 2.3 The Necessity of a Parallel Framework

The International Phonetic Alphabet (IPA) is currently a popular standard system of identifying speech sounds, especially in the study of linguistics and the teaching of languages. The IPA, which was developed under the International Phonetic Association, is a complete collection of symbols used in the representation of all the phonemes in human languages. The system allows political speech to be transcribed by phonetics to the highest level of accuracy possible, so it is an invaluable instrument of phonetics analysis and language recording. Nevertheless, the IPA is not without its limitations even though scientifically it is an accurate one and when it comes to the learning of everyday language and real-life communication. Among other issues, there is the fact that most of the IPA symbols are not known by the common people and are not readily available on regular keyboards. The learner is forced to memorize the specialized characters quite a number of times like /æ/, /θ/, or /ð/, and this may pose another obstacle to learning. This has made IPA mostly applied in college and linguistic settings as opposed to normal school or business (Roach, 2009).

Where the IPA prioritizes scientific completeness, the AE model takes a more accessible path one that seeks to balance phonetic accuracy with the familiarity of standard English writing. Rather than introducing an entirely new alphabet, AE works within the existing Latin script, applying systematic modifications that enhance phonetic transparency without alienating the reader from a writing system they already know. Its core mechanism is straightforward: vowel length is made explicit through a consistent doubling rule, where a single vowel signals a short sound and a doubled vowel signals a long one. This rule-governed structure allows a reader to derive pronunciation directly from the written form, removing the dependence on memorization that standard English demands. Where the Latin alphabet alone falls short, AE supplements it with a small, deliberate set of phonetic characters ʌ, æ, ɔ, ə, θ and ð each chosen to resolve a specific category of sound that conventional English spelling represents inconsistently. By keeping this inventory minimal and ensuring compatibility with common writing systems, AE avoids the steep learning curve that has historically limited the practical reach of phonetic transcription systems.

The greatest strength of the AE version, perhaps, is its fact that it is designed as a parallel orthography, and not, in any way, as a replacement of the standard spelling in English. Returning to conventional writing instead of opposing it, AE avoids the institutional and cultural backlash against which the large scale spelling reform movements historically have been unsuccessful. It does not demand that one learners, educators, or institutions forego a system that they have a long time mastered instead it provides an additional source of phonetic clearness that can be referred to at all the places that it seems most needed, in language education, in the study of pronunciation, or in the communication across languages. It is this compensatory role that will render AE practically viable where more radical suggestions have not been.

Finally, the AE system is in a contemplated intermediate position: it introduces the phonetic strictness of the IPA to the comprehension of average learners, as it is based on a familiar writing system. By so doing, it has real possibilities of enhancing pronunciation learning, lessening the orthographic vagueness which weighs down on standard English, and favoring easier communication in an ever more multicultural world.

## III. THE ARTIFICIAL-ENGLISH(AE) FRAMEWORK: METHODOLOGY

The Artificial-English (AE) structure design is based on an assumption of the total removal of spelling exceptions that are usually outstanding in traditional English orthography. Its methodology is based on deterministic rules that control the insertion or deletion of vowels, consonants and graphemics so that all elements that are printed correspond identifiable phonetic output. The AE has imposed a clear and logical orthophonic correspondence between written expression and word pronunciation, unlike the traditional English spelling, in which the sound of words can be distorted by the historical factors.

The AE methodology is based on the framework of the vowel representation. Within this scheme, the short vowel sound will be represented by single vowels, whereas the long vowel durations will be represented by the double ones. This rule gives the reader the capability of deriving pronunciation without any ambiguity off spelling. Moreover, the silent letters that are present in English words are always strictly eliminated, whereas the lack of phonetic elements is added where it is needed to show correct pronunciation. A strict range of special phonetic signs is also included in the framework to indicate the sounds which are not consistently written with regular Latin characters. The AE with these mechanisms provides a predictable, computationally consistent spelling model with which phonetic learning and transliteration learn this model as well as linguistic analysis.

### 3.1 The Vowel Paradigm: Duration and Representation

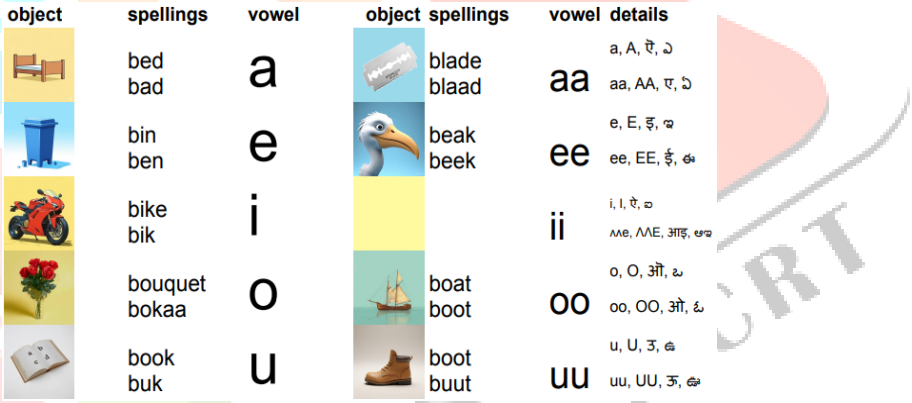


**Figure 1:** Vowel Mapping and Phonetic Realization in the Artificial-English (AE) System.

Figure 1 shows the mapping of vowels and phonetic interpretation of Artificial-English (AE) framework. The figure shows how AE creates a deterministic connection between vowel spelling and vowel pronunciation, through systematic differentiating between short and long sound vowels. Single vowels (a, e, i, o, u) in the left side of the diagram are short vowels, which can be explained by the following example: bad, ben, bik, bokaa, and buk. Such examples point to how AE makes the process of pronunciation easier by making sure every single vowel symbol is always associated with a given acoustic value.

The second part of the figure, on the right, brings about the long vowel, in which the long vowel duration is reflected in the two-vowel (aa, ee, ii, oo, uu) vowel system. The author uses words like blaad, beek, boot, and buut, to demonstrate that vowel doubling is clearly used to indicate a long sound. Also, the vowel details column provides the phonetic equivalence with several phonetic realizations that occur in natural speech. All in all, the figure shows that AE gives a clear and predictable vowel system that brings about less ambiguity on pronunciation and helps ESL learners to have phonetic clarity.

Standard English struggles significantly with representing vowel duration, often relying on complex orthographic cues such as terminal markers (for example, the “magic e” in pine versus pin) or inconsistent vowel teams like ea, which produce different sounds in break and beak. These irregular conventions make it difficult for learners to predict pronunciation directly from spelling. As a result, readers must rely on memorization rather than systematic phonetic rules, increasing the complexity of reading and pronunciation.

The Artificial-English (AE) framework resolves this issue through a strict quantitative vowel rule. In AE, vowel length is represented explicitly within the spelling itself. Short vowel sounds are represented by a single vowel (a, e, i, o, u). For example, book is simplified to buk, and pen may be represented as pan when adjusted to match the exact phonetic output.

Table 3.1: The Artificial-English Vowel Duration Paradigm

| Standard English Word | Standard Spelling | Acoustic Duration | AE Transliteration | AE Vowel Rule Applied |
|---|---|---|---|---|
| Book | oo | Short (/ʊ/) | buk | Single vowel representing short duration |
| Boot | oo | Long (/uː/) | buut | Double vowel representing long duration |
| Any | y | Long (/iː/) | anee | Single vowel "a" representing short duration |
| Alien | a | Long (/eɪ/) | aaleyʌn | Double "a" denotes the initial long vowel |

Table 3.1 gives the Artificial-English (AE) vowel duration paradigm showing how the systematically organized framework in covering the vowel length is being representative of the same in terms of having similar orthographic rules in covering the same. The spelling of vowels in the traditional English language tends to be vague and relies on an irregular route like the vowel teams (vowel-teams) or the silent letters. The AE system eradicates this confusion by adding a rule of determinism: the single vowels will indicate the presence of short vowels whereas the importance of long vowels duration will be presented in the use of two vowels.
For example, the word book is transliterated as buk, where the single vowel represents the short /ʊ/ sound. In contrast, boot becomes buut, where the double u indicates a long vowel. Similarly, any is represented as anee, and alien as aaleyʌn, ensuring clear phonetic representation. Overall, the table demonstrates how AE improves pronunciation clarity and reduces orthographic complexity.

### 3.2 Symbol Inventory and Consonant Regularization

To capture sounds that standard English letters fail to represent accurately, AE introduces a limited set of specialized phonetic characters. This prevents the overloading of standard letters.

- **The Schwa and Its Variants:** Standard English offers no consistent orthographic representation for the unstressed neutral vowel sound that appears across a wide range of words and syllables. AE addresses this gap by assigning dedicated characters æ and ə to capture this sound with precision, ensuring that even the most phonetically elusive vowel quality has a fixed and unambiguous written form.

- **Fricatives:** Standardizing the 'th' digraph into its voiced (ð) and unvoiced (θ) components, a distinction crucial for phonetic accuracy but absent in standard English spelling.

### 3.3 Rule of Literal Transcription (Insertion and Deletion)


**Figure 2:** Comprehensive Lexical Mapping of Standard English to Artificial-English (AE) Transliterations.

Figure 2 illustrates the practical application of the Artificial-English (AE) framework in real-world commercial contexts. The upper image shows a standard Samsung showroom sign where the brand name is displayed using conventional English spelling. While globally recognizable, the spelling "Samsung" does not clearly indicate the exact pronunciation for non-native speakers, particularly the vowel quality in the first syllable.

The lower image presents a proposed AE based supplementary sign displaying the transliteration SÆMSΛNG alongside the original brand name a pairing that illustrates precisely how AE is intended to function in practice. The substitution of standard a with æ is not merely a cosmetic change; it directly addresses one of the most persistent sources of mispronunciation among non-native speakers, namely the ambiguity of the English grapheme a, which carries multiple phonetic values depending on context. By fixing the first syllable to the broad vowel æ, the transliteration removes that ambiguity entirely, giving ESL learners and international consumers a reliable phonetic reference point that the original spelling cannot provide. This example captures the broader logic of AE's supplementary role: not to displace the established brand identity, but to sit alongside it as a transparent pronunciation guide one that functions across linguistic backgrounds without requiring any prior familiarity with English orthographic conventions.

The given example shows that AE can be used as a parallel phonetic layer when used in terms of public signs and branding. These enactments can increase the articulateness of pronunciation, decrease indefiniteness in oral communication, and foster more fruitful cross-linguistic engagement in commercial contexts on the global level.

AE operates on a strict "what you hear is what you write" protocol.

1. **Deletion of Silent Letters:** Lexical artifacts are completely removed.
    - Example: 'knife' $\rightarrow$ nif
2. **Insertion of Implied Sounds:** Where sounds are spoken but not written in standard English, AE dictates their insertion.

Table 3.2: Resolution of Orthographic Irregularities via AE Transcription

| Standard English | Phonological Challenge in Standard Spelling | AE Transliteration | Orthographic Resolution Achieved |
|---|---|---|---|
| Knife | Contains silent consonant 'k' and terminal magic 'e' | nif | Complete elimination of unvoiced lexical artifacts. |
| Nature | Obscured affricate ('ture' pronounced as /tʃə/) | naacʌr | tʃ sound is replaced with "c" as in cappuccino |
| All | Standard 'a' fails to represent broad /ɔ:/ sound | ɔɔl | Introduction of the broad vowel symbol 'ɔ' (doubled for length) |
| Ant | Standard 'a' ambiguous with long /eɪ/ or short /ə/ | ænt | Utilization of specialized symbol 'æ' for exact phonetic clarity. |

Table 3.2 demonstrates how the Artificial-English (AE) framework resolves common orthographic irregularities present in standard English spelling. Traditional English often includes silent letters, ambiguous vowel representations, and inconsistent phonetic patterns that make pronunciation difficult to predict. The table highlights several examples where AE provides a clearer and more deterministic phonetic representation.

Overall, the table illustrates how AE systematically removes orthographic ambiguity and improves phonetic transparency.

By combining the vowel paradigm, precise symbol inventory, and literal transcription rules, AE generates words that cannot be mispronounced, significantly aiding ESL acquisition and establishing a reliable cross-linguistic bridge.

## IV. REAL WORLD APPLICATION AND IMPLEMENTATION

Contrary to strictly theoretical orthographic frameworks, which usually have difficulty in leaving the page, the AE framework is designed to be used right now and right now so that it can be deployed in practical application. Its viability lies not in supplanting the existing one, but in co-occurring with it and this difference is what made AE stand out of the long history of spelling reform proposals that failed due to institutional resistance. As an alternative to a wholesale replacement of standard English, AE can most usefully be interpreted as an overlay phonetic layer, one of which can be selectively activated wherever phonetic articulateness is most desirable: in advertising signage and learning materials and in cross-linguistic communication situations. This additional positioning is not a trade off, but a calculated style choice it is what makes AE practically usable without necessarily requiring the wholesale restructuring of a writing system already well established in global literacy and global culture and global communication.

### 4.1 Commercial and Brand Transliteration

Mispronunciation can often lead to brand dilution in cross-cultural economies of the highly globalized economy where farsighted corporations are more likely to experience it. The English standard spelling is not always able to direct a non-native speaker to the desired phonology of a brand name (Bhatia, 2000). The AE framework provides a phonetic uniformity of commercial transliteration that must be used in different regions.

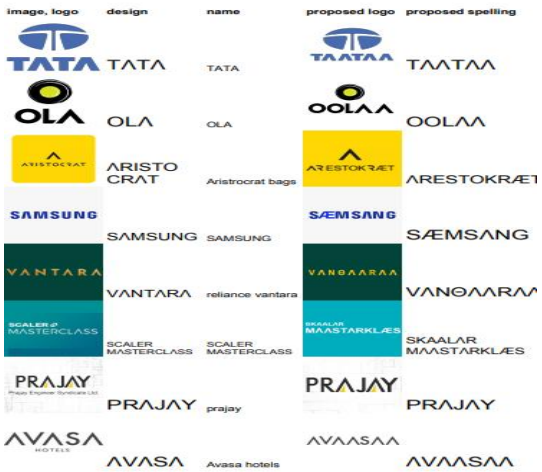


**Figure 3:** Cross-Linguistic Transliteration Proposals for Global Commercial Brands.

Figure 3 shows how the Artificial-English (AE) model can be implemented in the business world. The comparative matrix is an opposition between the standard English orthography of known internationally used brand names, and their suggested AE transliterations, and how much inherent deep orthographic confusion is resolved in the system of cross linguistic listeners.
The transliterations demonstrate several core mechanical rules of the AE system:

- **Enforcement of Vowel Duration:** Brands like TATA, OLA, and AVASA are vulnerable to vowel truncation by non-native speakers. The AE framework mathematically enforces the long vowel durations by doubling the characters, resulting in TΛΛTΛΛ, OOLΛΛ, ΛVΛΛSΛΛ.This ensures the intended phonetic weight of the brand name is preserved.

- **Phonetic Precision via Specialized Characters:** The transliteration of SAMSUNG to SÆMSΛNG and ARISTOCRAT to ΛRESTOKRÆT demonstrates the integration of the broad vowel symbol 'æ'. This substitution corrects the ambiguous standard 'a' and maps the exact intended acoustic quality of the syllables.

- Consonant and Fricative Substitution: In the transliteration of VANTARA to VANΘAARAA, the AE framework introduces the specialized 'Θ' symbol to precisely capture the intended dental fricative, preventing the harder 't' sound that standard English spelling might suggest to an ESL reader.

- **Complete Syllabic Regularization:** Complex brand names such as SCALER MASTERCLASS are entirely remodelled into SKΛΛLΛR MΛΛSTΛRKLÆS. This eliminates the unpredictable 'er' suffix and the ambiguous 'a', replacing them with deterministic phonetic units.

Through these transliterations as dual-signage, the multinational corporations can essentially curb phonetic ambiguity ensuring that the brands are not diluted, and that they are pronounced identically by any given group irrespective of language differences.

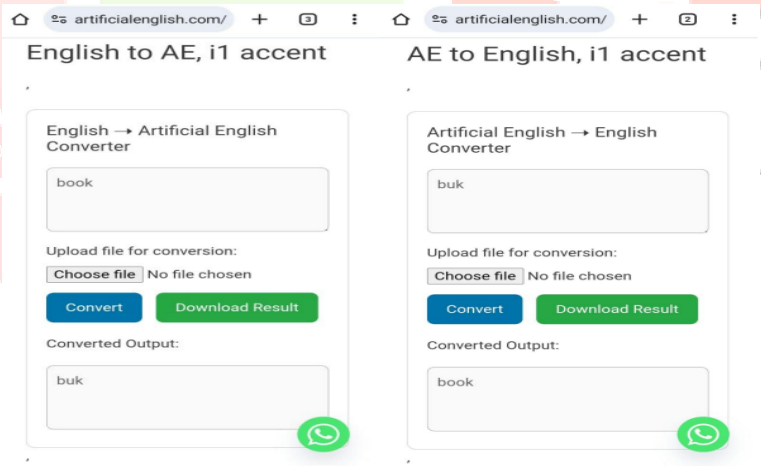


**Figure 4:** AE Transliteration Converter Tool

The AE Transliteration Converter Tool is an interactive digital application designed to bridge the gap between Standard English spelling and Artificial-English (AE) phonetic writing. The tool operates in two directions converting Standard English words into their AE transliterations, and converting AE spellings back into their Standard English forms. For example, the Standard English word "book" is converted into its AE form "buk", eliminating the silent and misleading double-o spelling and replacing it with a single symbol that directly represents the short /ʊ/ sound. This two-way converter demonstrates the practical usability of the AE model in real-world learning environments, offering learners, teachers, and researchers a simple and accessible way to explore phonetic accuracy and spelling consistency. Built around the i1 accent system, the tool reflects the core principle of AE that every symbol must represent one sound, and every sound must be represented by one symbol, without exception.

Table 4.1: Cross-Linguistic Transliteration of Global Brands

| Brand Entity | Standard English Spelling | AE Transliteration | Phonetic Clarification Achieved for ESL Demographics |
|---|---|---|---|
| Chevrolet | CHEVROLET | SHAVROLAA | Eliminates French-derived silent 't', clarifies soft 'sh' and terminal long 'a'. |
| Samsung | SAMSUNG | SÆMSΛNG | Accurately maps the exact acoustic quality of the first syllable using 'æ'. |
| Tata Motors | TATA | TΛΛTΛΛ | Mathematically enforces vowel duration, preventing truncation of the long 'a'. |
| Ola | OLA | OOLΛΛ | Secures the initial long 'o' and terminal long 'a' against mispronunciation. |
| Aristocrat | ARISTOCRAT | ΛRESTOKRÆT | Replaces ambiguous vowels with deterministic short ('e', 'o') and broad ('æ') equivalents. |

Table 4.1 provides a comparative analysis demonstrating the practical utility of the Artificial-English (AE) framework in resolving orthographic ambiguities within global commercial branding. Multinational corporations frequently suffer from brand dilution in foreign markets due to the opaque nature of standard English spelling. This table illustrates how AE serves as a deterministic phonetic guide for English as a Second Language (ESL) demographics.

The transliterations detailed in the table highlight three core orthographic resolutions achieved by the AE framework:

- **Resolution of Foreign Etymology and Silent Artifacts:** The standard spelling of "Chevrolet" relies on French etymological rules, retaining a silent terminal 't' and an ambiguous 'ch' digraph. The AE transliteration, SHAVROLAA, strictly applies phonetic literalism. It eliminates the silent consonant, explicitly writes the soft 'sh' fricative, and utilizes the double 'aa' to mathematically enforce the terminal long vowel sound.
- **Enforcement of Vowel Duration:** Brands originating from shallow orthographies, such as "Tata" and "Ola," are highly susceptible to vowel truncation when read by individuals accustomed to English short vowels. By transliterating these to TΛΛTΛΛ and OOLΛΛ, the AE framework applies its core quantitative rule: doubling the character to explicitly mandate a long acoustic duration, thereby securing the brand's intended phonetic weight.

By mapping exact acoustic qualities to specific, unvarying graphemes, the AE transliterations eliminate the guesswork required by standard English, ensuring phonetic consistency across cross-cultural markets. Proposing dual-signage where standard English is accompanied by an AE transcription mitigates phonetic ambiguity. Consider the following real-world applications of AE in brand signage:

- **Chevrolet:** The French-derived spelling is highly irregular to the English eye, often mispronounced by ESL learners. AE transliterates this to SHAVROLAA, instantly clarifying the soft 'sh' sound, the schwa, and the terminal long 'a' while eliminating the silent 't'.
- **Samsung:** To capture the exact vowel sounds intended in the global pronunciation, AE maps this to SÆMSΛNG, utilizing the broad æ to denote the exact acoustic quality of the first syllable.
- **TATA Motors:** To ensure the long vowel durations are respected and not truncated, AE standardizes the spelling to TΛΛTΛΛ, mathematically enforcing the vowel length through doubling.

### 4.2 Teaching and Learning Integration in ESL Environments

To ESL teachers, AE can offer to the elementary classroom setting the kind of phonetic scaffold that neither the IPA nor learning by heart have been capable of delivering: that is, a phonetic scaffold at once readable and reliably systematic on a systemic level. When a teacher presents a word based on strong orthographic roots one in which a spelling provides little sincere information as to how one should be reflected into the sound the AE transliteration with the standard variant provides students with a resolution point in the act of pronunciation. Instead of going to an unknown word as an unknown object that is supposed to be memorized, the learner can decode the word using a set of rules that are already in place inside him. The change in the dependency of the learner on the written language has more than just an effect in improving accuracy. Anxiety and the self consciousness of speaking out loud what he referred to as affective filter can be relevant barriers to language acquisition as Krashen (1982) found out. By somewhat eliminating the uncertainty that so frequently leads to that anxiety, AE establishes a classroom atmosphere where the learners are more likely to at least have a few more attempts at pronunciation, where the learners will probably be more inclined to correct themselves, and where the learners will be in a better position to develop the type of verbal confidence that cannot be achieved by mean of rote memory alone.


**Figure 5:** AE Transliteration of a Primary School English Textbook Page

Figure 5 presents a side-by-side comparison of a standard English primary school textbook page and its Artificial-English (AE) transliteration. The left panel displays the original English version of the poem "Two Little Hands" from Unit 1, My Family and Me, as found in a conventional early literacy textbook. The right panel propose the same content rendered in AE transliteration, titled "Mi Fæmelee ænd mee", with the poem rewritten as "Tuu Letel Hænds" and all words phonetically simplified to reflect their exact pronunciation. This comparison visually demonstrates how AE can be directly applied within existing educational materials, making early reading more accessible for young learners and ESL students by removing silent letters, irregular spellings, and phonetic ambiguity, replacing them with a consistent and predictable one-symbol-one-sound writing system.

## V. COMPARATIVE ANALYSIS AND DISCUSSION

As a measure of assessment of how well the Artificial-English (AE) framework works, comparative evaluation with Standard English (SE) is needed concerning the reading efficiency, phonetics transparency and mental cognitive requirements. Irregular grapheme-phoneme correspondences dominate the orthography of standard English, and such irregularities frequently necessitate memorisation as it is learned and a contextual inferential choice on the learner's part instead of systematic decoding. This complexity may slow down the learning of reading and the growing error in pronunciation especially in English as a Second Language (ESL) learners. In contrast, the AE model provides an orthographic system which is deterministic where every symbol is always associated with one fixed sound. AE greatly minimizes uncertainties in articulation by eliminating silent letters, the uniformity of the vowel-long sounds represented by single and doubled downstep, and by a smaller number of special phonetic symbols.

In cognitive terms the rule based system allows the reader to more effectively decode words that he did not understand, making less use of lexical memory. In turn, AE can enhance reading fluency, accuracy of pronunciation and understanding of sound patterns, especially in conditions of multilingual learning.

### 5.1 Orthographic Efficiency and Transparency

Standard English requires readers to process words holistically as sight words, heavily taxing visual memory. AE transitions reading back into a purely phonological decoding process.

- **Vowel Consistency:** In SE, the graphemes 'oo' can represent varying sounds, as in book (/ʊ/) versus boot (/u:/). Under the AE paradigm, this ambiguity is resolved mathematically: short sounds utilize single vowels (buk), and long sounds utilize double vowels (buut).
- **Consonant Reliability:** The SE word knife requires the learner to memorize a silent 'k' and a terminal 'e' that modifies the 'i'. AE reduces this to its phonetic core: nif, eliminating visual clutter and mapping exactly one symbol to one sound.

### 5.2 Acknowledging Limitations and the Etymological Trade-off

Any serious orthographic proposal must reckon honestly with the trade-offs its departures from convention introduce. The most substantive limitation of AE is the one Venezky (1999) identifies as central to phonetic reform more broadly: the erosion of word structure and etymological transparency. In standard English, the shared root of sign and signature remains visually intact despite the divergence in how each word is pronounced a feature that carries real value for readers who derive meaning from recognizing common morphemes across related words. A system that prioritizes sound over historical form, as AE deliberately does, necessarily sacrifices some of that visual relatedness. This is not a flaw that can be engineered away; it is an inherent consequence of phonetic determinism, and any honest appraisal of AE must acknowledge it as such.

That said, the practical demands AE places on a new learner are modest by comparison with existing alternatives. The introduction of five specialized characters ʌ, æ, ɔ, ə, θ and ð does require an initial period of familiarization, but the scale of that investment should be kept in perspective. The full IPA system encompasses over a hundred symbols and dozens of diacritics, a scope that has consistently restricted its use to specialist academic contexts. AE's inventory, by contrast, is small enough to be learned quickly and intuitive enough to be retained making the threshold for meaningful engagement with the system genuinely low.

## VI. FUTURE SCOPE AND SOCIOLINGUISTIC INTEGRATION

AE is seen like a complementary phonetic system that has the potential to help learners, teachers and communicative systems to have more pronunciation transparency. A direction that acquisition of AE through the empirical assessment in linguistic learning settings should take in the future is one of the key ones. The studies may be controlled experimental and evaluate reading fluency and pronunciations accuracy of ESL students who go through dual-text learning materials (Standard English and AE transliteration) compared to control groups who go through standard English alone. These experiments would make quantitative use of the cognitive advantages of deterministic orthographic guidance. The future of the Artificial-English (AE) model does not rest in legislative mandates or institutional requirements, and the reason for this becomes clear when one examines the ground-level reality of English language learning. Governments and institutions can enforce the teaching of English, but they cannot enforce its ease. The language itself remains the obstacle. Two problems, above all others, consistently defeat learners regardless of curriculum or policy spelling and grammar. English spelling is a historical accident, shaped by centuries of borrowing from French, Latin, Greek, and Germanic languages, producing a system where the same letter combinations sound different across words and the same sounds are spelled in entirely different ways. Grammar compounds this frustration further, with its web of irregular verbs, inconsistent tense formations, and article usage rules that even advanced learners struggle to fully internalize. No legislation can resolve these structural flaws. It is here, in directly addressing what makes English genuinely difficult to learn, that the AE model finds its real relevance not as a policy instrument, but as a practical solution to problems that institutions have long acknowledged but never been able to fix.

Technologically speaking, practical implementation of AE would mean the production of supporting digital infrastructure. This encompasses localized keyboards, automatic transliteration systems and dictionary

delivered type application programming interfaces (APIs) capable of producing transcription of AE text on standard English text. These tools may provide a smooth assimilation of AE in the educational programs, language learning software, and web-based communication infrastructures. Moreover, it is possible that the deterministic nature of AE will be used to benefit artificial intelligence and natural language processing (NLP). The speech recognition and text-to-speech technologies have difficulties in handling irregular spelling patterns of English words that are marked by obscure pronunciation. AE might serve as a regular phonetic subsistence by offering a regular phonetic representation that would be less complex to interpret phonologically through a syntax. This has the potential to minimize the number of computational mistakes among voice interfaces, translation devices, and automated reader devices.

This potential is most compellingly demonstrated when we consider the fundamental barriers that learners face when acquiring English as a second or additional language. Among the most persistent and frustrating of these challenges are the deeply irregular spelling conventions of the language and its notoriously complex grammatical structures. English spelling, shaped by centuries of linguistic borrowing from Latin, French, Germanic, and Greek roots, rarely follows consistent phonetic rules leaving learners to memorize countless exceptions rather than apply reliable patterns. Grammar presents an equally daunting obstacle, with its intricate system of tenses, articles, prepositions, and subject-verb agreements that often defy straightforward logical explanation. It is precisely in addressing these two stubborn pain points spelling and grammar that an artificially streamlined English model could offer the most immediate and measurable value, making the language more accessible to the hundreds of millions of learners who struggle not from a lack of effort, but from a lack of consistency in the language itself.

Sociolinguistically, AE can also be used in order to promote better cross-cultural communication. Since English remains the world's common language of communication the one language that speakers of different mother tongues reach for when they need to understand one another there are naturally many different ways it is pronounced, each shaped by the speaker's native phonological system. A USA speaker, UK speaker, AUS speaker, Indian speaker, Spanish speaker, a Japanese speaker, and an Arabic speaker will all bring the sound patterns of their home language into their English, producing pronunciations that can sometimes create barriers to understanding even when both parties are technically speaking the same language. AE, by offering a more standardized and simplified phonological framework, has the potential to bridge these gaps not by erasing the richness of linguistic diversity, but by providing a common phonetic ground on which speakers from vastly different backgrounds can meet, communicate, and be understood with greater ease and confidence. A standard phonetic reference like AE is something that might help lessen the confusion and enhance accessibility by foreign users. In general, the further evolution of the AE framework will require the cooperation of linguists, educators and technology developers in interdisciplinary teaching to investigate its pedagogic efficiency and the way it could be used in the real-life communication systems.

## VII. CONCLUSION

Deep orthography of standard English has shown to be a long time challenge to world literacy, linguistic accessibility and successful cross cultural communication. The intricate correlation between spelling and pronunciation can often compel a learner to memorize, instead of predicting, the phonetics, making the acquisition of the ability to read and speak more cognitively demanding. The given problem is even stronger when it comes to the learners of English as a Second Language (ESL), as they often face the problem of pronunciation mistakes caused by irregular grape to phoneme associations.

To overcome these constraints, The Artificial-English (AE) framework is suggested to provide a mathematically designed and deterministic orthographic model. With one-to-one grapheme to phoneme matching, AE ensures that silent letters are removed, vague vowel soundings are naturally determined, and, with a merely simple single/ double vowel rule, the elaborate representation of the vowel duration is provided. Moreover, a low number of functional phonetic signs merged together makes sure the phonological accuracy will be higher and the readability will be preserved.

AE claims to replace standard English orthography, which is presented as a key strength and a tactically appropriate attribute of the framework. Being an extra phonetic mechanism, AE is at liberty to act where it is most needed without the rubber against the din that the suggestion of wholesale linguistic change entails. Its possible field of use is also appropriately wide: it could be used in ESL classrooms and during tongal pronunciation exercises, or during commercial transliteration, digital communication platforms, and speech technologies, which are currently grappling with phonetic anomalies of standard English spelling. Under

all these possibilities is one and the same promise and that is, whatever is written can be relied upon to represent what is said. By providing that openness, AE can not only enhance the acquisition of the pronunciation and facilitate cross-linguistic communication, but it can also ensure that the process of studying the English language will become fairer to the millions of learners around the world who find its existing orthographic opaqueness an actual and not always essential obstacle to studying the language in question.

Artificial-English (AE) is designed to function in parallel with standard English, not as an isolated or competing system but as a complementary phonetic layer that coexists alongside the conventional orthography. In this parallel capacity, AE does not seek to disrupt the existing linguistic infrastructure but rather to supplement it by offering a transparent, phonetically consistent alternative for contexts where clarity of pronunciation is paramount. Learners, educators, and speakers can fluidly switch between AE and standard English depending on the communicative setting, much as bilingual individuals navigate between two languages. This parallel operation allows AE to integrate into classrooms, digital interfaces, and multilingual environments without mandating a wholesale departure from familiar English conventions. The two systems can thus work in tandem: standard English preserving its rich literary and cultural heritage while AE provides the phonetic scaffolding necessary for accurate spoken language acquisition and cross-linguistic communication.

Looking beyond its supplementary role, AE holds the long-term potential to serve as a full replacement for standard English orthography, particularly as global communication demands grow increasingly urgent and literacy barriers become more consequential. If AE were adopted as the primary written form of English, learners worldwide would benefit from a system in which spelling and pronunciation are in complete alignment, drastically reducing the time and cognitive effort required to achieve literacy. The elimination of silent letters, irregular grapheme-phoneme correspondences, and inconsistent vowel representations would render written English accessible to a far broader population, including speakers of phonetically regular languages who currently find English orthography especially difficult to master. While a complete replacement would require significant institutional, educational, and cultural transitions, the logical coherence and pedagogical advantages of AE make it a compelling candidate for long-term orthographic reform. In this vision, AE does not merely assist in the learning of English but becomes English itself in its written form, fulfilling the promise of a truly global, equitable, and phonetically transparent language system.

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