



Original Research

Introducing the Platform of the Electronic World Atlas of Varieties of English (eWAVE)

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Abstract

The Electronic World Atlas of Varieties of English (eWAVE) constitutes a major, open-access digital resource dedicated to the systematic study of grammatical variation across the global Anglosphere. Developed as a dynamic and evolving research platform, its primary objective is to facilitate fine-grained, comparative analyses of morpho-syntactic phenomena across a diverse spectrum of 76 English varieties, including traditional dialects, high-contact vernaculars, indigenized L2 varieties, and English-derived Pidgins and Creoles. By cataloging expert judgements on 235 features across 12 grammatical domains, eWAVE moves beyond a traditional, L1-centric perspective to offer a more nuanced and globally inclusive mapping of the English language. The database is explicitly designed for interoperability, allowing for direct comparison with other major typological databases like the *World Atlas of Language Structures* (WALS) and the *Atlas of Pidgin and Creole Structures* (APiCS). As such, eWAVE serves a dual purpose: it is both a synthesis of existing knowledge on global Englishes and a foundational tool designed to generate new research questions in fields ranging from dialectology and sociolinguistics to contact linguistics and syntactic theory. Thus, a principal objective in establishing eWAVE as an openly accessible database was to foster a sense of communal ownership by the global research community. The intention was to position the platform as a dynamic and evolving scholarly tool, subject to ongoing enhancement and expansion. It is envisioned to function not only as a reference point but also as a foundational departure for both future pedagogical approaches and practices as well as further investigative work on global varieties of English.

Keywords: Electronic World Atlas of Varieties of English (eWAVE), Grammatical Morpho-syntactic Variations in English, Open-access Digital Resource, World Englishes

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1. The Evolution of eWAVE

The Electronic World Atlas of Varieties of English (eWAVE) was originally developed and compiled at the University of Freiburg's Freiburg Institute for Advanced Studies (FRIAS) and the English Department of the University of Freiburg, Germany. Its initial development phase, spanning from 2008 to 2011, culminated in the first public release. eWAVE 1.0 emerged from an earlier scholarly effort: the interactive CD-ROM that accompanied the *Handbook of Varieties of English* (Kortmann, et al., 2004), published by Mouton de Gruyter. Initiated by Bernd Kortmann and Kerstin Lunkenheimer in 2008, the project expanded into a collaborative endeavor aimed at building a significantly more extensive and finely detailed linguistic database. A central aim was to produce a research tool that moved beyond an exclusive focus on native-speaker (L1) varieties, thereby establishing a stronger empirical basis for comparative studies across dialects and varieties. Such research is essential for documenting the full scope of grammatical diversity and variation found throughout the English-speaking world.

In so doing, a detailed questionnaire was iteratively designed and refined by a panel of renowned specialists—including Lieselotte Anderwald, Susanne Michaelis, Rajend Mesthrie, Peter Mühlhäusler, Jeff Siegel, Peter Trudgill, and Susanne Wagner. The final version of the instrument encompassed 235 morpho-syntactic features, which was then distributed to field experts globally for systematic data collection. Interested readers are encouraged to download and scrutinize a copy of this questionnaire via

<https://ewave-atlas.org/static/WAVEquestionnaire.pdf>

A significantly revised and expanded version, Release 2.0 was launched in November 2013. eWAVE 2.0 functions as an interactive repository of morpho-syntactic variation in spontaneous spoken English. It maps 235 features from a dozen domains of grammar across 51 distinct varieties of English, encompassing traditional dialects, high-contact mother-tongue Englishes, and indigenized second-language Englishes, along with 26 English-based Pidgin and Creole languages. These varieties represent eight major world regions where English is spoken: Africa, Asia, Australia, the British Isles, the Caribbean, North America, the Pacific, and the South Atlantic. The database was constructed from a synthesis of sources, including published descriptions, naturalistic corpus data, and native-speaker knowledge, contributed by a team of 84 leading scholars, all recognized authorities in their respective areas, directed by Bernd Kortmann and Kerstin Lunkenheimer. The

platform is unique not only by its breadth of coverage, user-friendliness and accessibility but also by its status as an open-access resource.

The most recent substantial update version of the eWAVE, now at use, was released on March 2020. eWAVE 3.0 incorporates an additional variety, Croker Island English, bringing the total number of documented Englishes (spoken across the globe) to 77, thereby solidifying its position as the largest available database of its kind to date. This update introduces new bibliographic entries and illustrative examples. Furthermore, certain feature ratings have been revised based on a comprehensive survey of the original 84 contributors, overseen by Bernd Kortmann and Katharina Ehret. A particularly significant revision involves substantial updates to the feature ratings for Kenyan English. Additionally, eWAVE 3.0 integrates Glottocodes for 65 of its 77 varieties, following the Glottolog 4.2.1 classification system. These codes act as unique, persistent identifiers, and may facilitate computational matching and retrieval of specific varieties, also across different databases. It should be noted, however, that establishing a precise one-to-one correspondence between eWAVE varieties and Glottolog classifications proved unfeasible in certain instances, particularly for some regional dialects.

In sum, as a particularly invaluable resource for exploring World Englishes and learner Englishes, eWAVE has also the potential for acting as a vital research instrument for researchers as well as professionals working in linguistics-related fields of study such as creole studies, dialectology, syntactic variation, language change, typology, sociolinguistics, and second language acquisition. It can also serve as a teaching asset in English language training and education at universities across the world.

2. Rationale Behind eWAVE

Two primary motivations guided the project's scope and technical design: first, to extensively broaden the documentation of morpho-syntactic variation, and second, to adopt a programming format that would facilitate direct comparative analysis with other major databases on grammatical variation. Key among these are *The World Atlas of Language Structures* (WALS) (Dryer & Haspelmath, 2011) and the *Atlas of Pidgin and Creole Structures Online* (APiCS) (Michaelis, et al., 2013), both developed at the Max Planck Institute for Evolutionary Anthropology in Leipzig. A significant advantage for the eWAVE project was the opportunity to engage the same programming team responsible

for APiCS, who dedicated considerable effort to developing the eWAVE platform. Accordingly, eWAVE serves a dual purpose: it is both a synthesis of existing knowledge on global Englishes and a foundational tool designed to generate new research questions in fields ranging from dialectology and sociolinguistics to contact linguistics and syntactic theory. Thus, a principal objective in establishing *eWAVE* as an openly accessible database was to foster a sense of communal ownership by the global research community. In other words, the intention was to position the platform as a dynamic and evolving scholarly tool, subject to ongoing enhancement and expansion. It is envisioned to function not only as a reference point but also as a foundational departure for both future pedagogical approaches and practices as well as further investigative work on global varieties of English.

3. The Corpus of eWAVE

Table 1 delineates the 77 varieties, including English-based Pidgins and Creoles, incorporated into the eWAVE sample, illustrating their classification into variety types (detailed subsequently) and their geographical distribution (i.e., eight regions).

Table 1

English Varieties Documented in eWAVE

	L1 (32)	L2 (18)	P (7) & C (19)
	<i>low-contact L1 (10) high-contact L1 (21)</i>		
British Isles (11)	Orkney and Shetland E, North of England, SW of England, SE of England, East Anglia, Scottish E	Irish E, Welsh E, Manx E, Channel Islands E [Maltese E]	British Creole
Africa (17)		Liberian Settler E, White South African E, White Zimbabwean E	Ghanaian Pidgin, Nigerian Pidgin, Cameroon Pidgin, Krio, Vernacular Liberian E
		Ghanaian E, Nigerian E, Cameroon E, Kenyan E, Tanzanian E, Ugandan E, Black South African E, Indian South African E, Cape Flats E	
South		St. Helena E, Tristan	

Atlantic (3)	da Cunha E, Falkland Islands E		
America (10)	Newfoundland E, Appalachian E, Ozark E, Southeast American Enclave dialects	Colloquial American E, Urban African American Vernacular E, Rural African American Vernacular E, Earlier African American Vernacular E	Gullah
Caribbean (13)	Bahamian E	Jamaican E	Jamaican C, Bahamian C, Barbadian C (Bajan) Belizean C, Trinidadian C, Eastern Maroon C, Sranan, Saramaccan, Guyanese C, San Andrés C, Vincentian C
South and Southeast Asia (8)	Colloquial Singapore E, Philippine E	Indian E, Pakistan E, Butler E Sri Lanka E, Hong Kong E, Malaysian E	
Australia (5)	Aboriginal E, Australian E, Australian Vernacular, Croker Island English E		Torres Strait C, Roper River C (Kriol)
Pacific (8)	New Zealand E	Colloquial Fiji E, Acrolectal Fiji E,	Hawaiian C, Bislama, Norf'k, Palmerston E, Tok Pisin

4. Analytical Systems of eWAVE

4.1. Taxonomy for Variety Types

The 77 datasets in eWAVE are categorized into five broad typological classes, as defined and characterized below. Contributing experts were requested to classify their respective varieties according to this framework.

4.1.1. Traditional L1 Varieties (L1t)

This category encompasses longstanding, regional non-standard mother-tongue varieties. They are distinguished by a comparatively limited history of contact with other dialects or languages since the onset of the colonial era (approximately the last four centuries).

4.1.2. High-Contact L1 Varieties (L1c)

Varieties in this group are defined by significant contact, either among different dialects of English or between English and other languages. eWAVE classifies three sub-types as high-contact L1 varieties. The first L1 variety is the Transplanted L1 Englishes/Colonial Standards. These are relatively recent indigenized varieties that emerged over the last 400 years in former settlement colonies. They possessed native speakers from their inception and were shaped by settlers from diverse linguistic backgrounds. Some, like Australian and New Zealand English, have developed independent standard forms, while others, such as Bahamian English, remain closer to regional dialects in status. The second L1 variety is Language-Shift Englishes: These are varieties that have supplanted a community's original primary language, forming a unified speech community comprising both adult and child L1 and L2 speakers. Some, like Irish and Welsh English, have completed this shift and now have predominantly L1 speaker populations. Finally, the third L1 variety is the Standard L1 Varieties.

4.1.3. Indigenized L2 Varieties (L2)

This label refers to two categories of non-native varieties. The first and larger group consists of non-native indigenized varieties from territories where English was introduced during colonialism, typically through formal education, and remains an official language, despite the historical absence of a significant L1 English-speaking population. These varieties often lack large numbers of native speakers but may hold prestige and normative status locally (e.g., Pakistani English). The second group comprises non-native varieties spoken in regions where L1 English speakers are or were demographically significant, but where social segregation has limited contact between L1 and L2 groups. These varieties are 'indigenized' as distinct entities but typically lack prestige or official status (e.g., Chicano English in the US or the English of Black and Indian South African communities).

4.1.4. English-Based Pidgins (P)

These are contact languages that typically arose in trade colonies to facilitate communication between groups without a common language. Acquisition of full English proficiency was not the initial goal. Pidgins are initially no one's mother tongue and are functionally restricted, though they may expand their domains of use and acquire native speakers over time (becoming expanded pidgins). With the exception of Butler English, all pidgins in eWAVE are considered expanded.

4.1.5. English-Based Creoles (Cr)

These contact languages typically developed in settings such as plantation colonies, where non-English-speaking populations acquired a form of English under conditions of limited exposure to its native speakers, despite pressure to use the language of the dominant socio-economic group. In many cases, such as in the Caribbean, creoles have become the primary native language for most of the population.

4.2. Grammatical Domains Surveyed

The 235 features in eWAVE are drawn from 12 core domains of grammar, as summarized in Table 2.

Table 2
Grammatical Domains in eWAVE

Grammatical domain	Features (number)	Sum features in group	% of total features
Pronouns	1-47	47	20.0%
Noun phrase	48-87	40	17.0%
Tense and aspect	88-120	33	14.0%
Modal verbs	121-127	7	3.0%
Verb morphology	128-153	26	11.1%
Negation	154-169	16	6.8%
Agreement	170-184	15	6.4%
Relativization	185-199	15	6.4%
Complementation	200-210	11	4.7%
Adverbial subordination	211-215	5	2.1%
Adverbs and prepositions	216-222	7	3.0%
Discourse organization and word order	223-235	13	5.5%

4.3. Classification System for Feature Rating

The eWAVE database is populated by frequency judgements provided by leading experts for each of the 77 varieties, Pidgins, and Creoles. Table 3 presents the classification system employed to rate the features:

Table 3*Classification System for Feature Rating*

A	feature is pervasive or obligatory
B	feature is neither pervasive nor extremely rare
C	feature exists, but is extremely rare
D	attested absence of feature
X	feature is not applicable (given the structural make-up of the variety/P/C)
?	no information on feature is available

5. Analytical Metrics

5. 1. Attestation

This metric quantifies the geographical spread of a feature across the eWAVE corpus. Calculated as a percentage, it is the sum of all A, B, and C ratings for a feature divided by the total number of varieties. A value approaching 100% indicates a very widespread feature.

5. 2. Pervasiveness

This measures the average frequency or dominance of a feature within the varieties where it is attested. The calculation is: $(\text{Number of A-ratings} + [0.6 \times \text{B-ratings}] + [0.3 \times \text{C-ratings}]) / \text{Total (A+B+C ratings)}$, multiplied by 100 to yield a percentage. A value near 100% signifies the feature is highly pervasive (mostly A-ratings) where it occurs, while a value near 30% indicates it is predominantly rare (C-ratings). It is critical to note that pervasiveness does not reflect a feature's overall attestation rate. Furthermore, the numerical weighting (1, 0.6, 0.3) is a necessary but provisional model to differentiate rating levels, acknowledging the inherent challenge in standardizing expert judgements across so many varieties.

6. Research Limitations and Potentials of the Feature Ratings

In large-scale surveys like eWAVE, APiCS, or WALS, feature ratings are necessarily abstract approximations of complex sociolinguistic realities. The internal heterogeneity of each variety means the eWAVE profile is an idealization that may not precisely match the usage of any specific speaker subgroup (e.g., defined by age or social class). This is especially pertinent for Pidgins, Creoles, and L2 varieties, which often exhibit significant variation across ethnic groups and lectal ranges (basilectal, mesolectal, acrolectal). Furthermore, eWAVE necessarily amalgamates regional diversity under single labels like 'Indian English'. The frequency ratings largely rely on expert judgement; as comprehensive corpus data is unavailable for many varieties.

These very limitations, however, unveil a substantial research potential. eWAVE serves not only as a synthesis of existing knowledge but also as a catalyst for new inquiry. For scholars in variationist sociolinguistics or the pragmatics of grammar, the database offers a vast repository of data points for finer-grained analysis. Features rated 'B' or 'C' are particularly promising, as they likely represent structured heterogeneity and are prime candidates for investigating stable variation, change in progress, or pragmatic specialization.

7. Future of the eWAVE Platform

The 'e' in eWAVE signifies both its electronic nature and its evolving character. Conceived as a dynamic, continuously developing resource for teaching and research, the database has undergone significant enhancements since its initial launch (v1.0) in November 2011. These include corrections to feature ratings, the incorporation of new datasets (e.g., Philippine English, Cape Flats English), the addition of over 2,400 illustrative examples, and interface improvements for better integration with APiCS and WALS.

The project team is committed to the ongoing expansion and refinement of eWAVE. Feedback and suggestions from the global research community and user base are actively encouraged, as they are essential for enhancing the platform's reliability, utility, and comprehensiveness. A fundamental rationale for providing eWAVE as an open-access resource is to foster a sense of communal ownership, establishing it as a dynamic reference point and a foundational departure for future research and pedagogy on global Englishes.

8. Concluding Remarks: What eWAVE Can Do

In conclusion, the data housed within eWAVE empowers researchers to investigate broad, overarching linguistic questions such as:

- Which set of features typically characterizes a given English variety type, for instance, L2 varieties?
- Which domains of grammar exhibit the most/least heterogeneity/homogeneity among varieties of English worldwide?
- Do English-based pidgins and creoles, considered as a group, demonstrate significant morpho-syntactic divergence from other variety types?

The platform also supports the analysis of large-scale patterns in English morphosyntax and provides answers to more targeted research inquiries, including:

- Which grammatical features are most/least widespread across varieties of English worldwide?
- How many varieties of English worldwide share feature X?
- Is feature X restricted to or characteristic of a particular part of the English-speaking world?
- Is feature X restricted to or characteristic of a particular group of varieties?
- Does variety A have feature X?
- In which area of grammar does variety A differ most from variety B?

The necessary information to address these and similar questions is accessible through the core components of eWAVE: the varieties index, the features index, and the detailed individual profiles for each variety and feature. These components integrate searchable catalogs of varieties and of morpho-syntactic features with interactive maps, allowing users to explore in detail the distribution of features within and across varieties of English and English-based Pidgins and Creoles across the global landscape.

eWAVE 3.0 is also a valuable resource in English Language Teaching (ELT), particularly for moving beyond a monolithic view of the language. It allows language developers to design lessons that reflect the global reality of English, showcasing the systematic and legitimate grammatical diversity found across native-speaker, second-language, and learner varieties. For instance, an English teacher can use eWAVE to demonstrate that features like the "double negative" ("I don't see nothing") or the omission of the copula ("She smart") are not simply "errors" but are standard in varieties such as

African American English or Singapore Colloquial English, thereby fostering linguistic awareness and challenging prescriptive biases.

In essence, eWAVE shifts the questions in ELT from "Is this correct?" to the more nuanced and globally relevant: "Who uses this, where is it used, and in what context is it appropriate?" It provides the empirical evidence to move beyond a single standard and embrace the pluricentric nature of the language. Moving beyond simple "right or wrong" judgments, eWAVE is particularly powerful for providing data-driven answers to descriptive and comparative questions about global English grammar. In the field of ELT, it can typically answer questions like these:

- What are some common grammatical characteristics of a specific variety of English?
- How widespread is a particular non-standard feature across the English-speaking world?
- Should the English teacher correct students' 'errors,' or are they legitimate features of their target English variety?
- How can learners be prepared to understand different English accents and grammars they will encounter in international contexts?
- How can the English teacher demonstrate the concept of World Englishes and linguistic diversity in a concrete way?

The platform is especially relevant in those English classrooms where the focus is on intercultural communication, English as an International Language (EIL), or English as a Lingua Franca (ELF). By consulting eWAVE, English teachers and advanced students can investigate the common morpho-syntactic features of their interlocutors' varieties, preparing them for real-world comprehension. This shifts the learning objective from achieving a single 'correct' standard to developing flexibility and receptive competence. Ultimately, eWAVE equips language educators to present World Englishes not as a complication, but as a rich, navigable landscape, promoting both tolerance for linguistic diversity and more effective communication.

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