

# Power Language Index (May 2016) Kai L. Chan, PhD

#### **POWER LANGUAGE INDEX**

There are over 6,000 languages spoken in the world today, but some 2,000 of them count fewer than a thousand speakers. Moreover, just 15 of them account for half of the languages spoken in the world.

The language that counts that most number of native speakers is Mandarin Chinese, the official language of China (and Taiwan), at close to 1 billion. Spanish is the second most common mother tongue at close to half a billion. English places third with over 400 million native speakers – but it counts over 500 million second language speakers, and is generally regarded as the global *lingua franca*. Rounding out the top five are Hindi and Arabic, both at around 300 million.

A pertinent question to ask is, Which language is the most influential and important? Is the number of speakers the decisive criterion? Obviously that should not be the case. Another important factor is the economic power behind each language. Mandarin Chinese is the official language of China, a country that has just overtaken the United States as the world's largest economy (PPP). Geography is also relevant. Spanish is spoken in most of Latin America; French is spoken in three continents; and Russia's land mass is almost twice as large as the next nation. And essentially language is a means of communication and way of consuming media. Herein an absolute majority of Internet content is in English, while India is the world leader in the number of feature films produced. Language is also at the heart of diplomacy. Here, English is the *de facto* working language of most international organisations; yet French has a standing on par with English, where it happens to be an official (although not the *de jure* working) language of just as many major supranational institutions.

#### **METHODOLOGY**

The Power Language Index (PLI) is a systematic way of evaluating the influence and reach of languages using 20 indicators to measure 5 basic opportunities afforded by language: geography, economy, communication, knowledge & media, and diplomacy. Within each of these is a set of variables that measure the effectiveness of language in capitalising on these opportunities (see table below).

COUNT	GEOGRAPHY (22.5%)	ECONOMY (22.5%)	COMMUNICATION (22.5%)	KNOWLEDGE & MEDIA (22.5%)	DIPLOMACY** (10.0%)
1	Countries spoken*	GDP (PPP)	Native speakers	Internet content	IMF
2	Land area	GDP/capita (PPP)*	L2 speakers*	Feature films*	UN
3	Tourists (in)*	Exports	Family size*	Top-500 universities	WB
4		FX market*	Tourists (out)	Academic journals*	Index of 10 SNOs
5		SDR composition*			

<sup>\*</sup> Half weight within its opportunity; indicator weights are otherwise distributed evenly within each opportunity.

The index measures the usefulness of a language to a representative human being and is not meant to apply to any particular person with his/her own set of conditions, preferences and geography. Indeed, the thought experiment is to imagine an alien landing on the Earth and wanting best to interact with humans. Which language would afford this alien the best ability to interact with humans and succeed on this planet? (The matter of the varying difficulties of learning different languages is set aside.)

Matching data on the 20 variables to the 124 languages in the index is not straightforward, as most data are not tied directly to a language. Rather, the majority are linked with nation states, and often these entities have multiple languages associated with them. A language may have official status in a country but not be in effective use (e.g. Romansh in Switzerland). Furthermore, some languages count many

st Indicator variables that take on value of 1 if an official/working language of the institution and 0 otherwise

## Power Language Index (May 2016) Kai L. Chan, PhD

second language speakers (e.g. French). Languages also might not be uniformly spread within a country (i.e. certain languages may be spoken only in specific geographic regions). The index attempts to correct for these (and other) nuances. Details on the methodology can be found <a href="here">here</a>.

Another challenge is classifying languages and distinguishing (in a consistent format) between a dialect and a language. For example, Cantonese (and other variants of Chinese) is viewed by some as a dialect of Chinese. Likewise, Hindi and Urdu are the same languages in different scripts. As far as possible, languages herein are distinguished by linguistic (e.g. mutual intelligibility) rather than political factors.

### **RESULTS (TOP 10)**

The table below is a list of the 10 most powerful languages (click <a href="here">here</a> for full results) along with their respective standings in relation to geography, economy, communication, knowledge & media, and diplomacy. The index is scaled so that each indicator takes a score in the range from 0 to 1. The final index score is a weighted average of the underlying indicators, so itself takes on a range from 0 to 1 and is a cardinal measure. A score of 1 thus reflects a language that is supreme in every measured facet.

RANK	SCORE	LANGUAGE	NATIVE	GEOGRAPHY	ECONOMY	сомм.	к&М	DIPLOMACY
1	0.889	English	446.0	1	1	1	1	1
2	0.411	Mandarin*	960.0	6	2	2	3	6
3	0.337	French	80.0	2	6	5	5	1
4	0.329	Spanish	470.0	3	5	3	7	3
5	0.273	Arabic	295.0	4	9	6	18	4
6	0.244	Russian	150.0	5	12	10	9	5
7	0.191	German	92.5	8	3	7	4	8
8	0.133	Japanese	125.0	27	4	22	6	7
9	0.119	Portuguese	215.0	7	19	13	12	9
10	0.117	Hindi*	310.0	13	16	8	2	10

<sup>\*</sup> If all Chinese dialects/languages (Mandarin being the largest) are considered as one it would not change the rank ordering. However, if Urdu and Hindi – and all the Hindi dialects – are taken as one it would vault it past Portuguese and Japanese.

It should come as no surprise that English is (by far) the most powerful language. It is the *de facto* language of the largest (nominal GDP) economy (USA) and for two other G7 nations (UK and Canada). It is the global *lingua franca*. Mandarin comes second on the strength of the Chinese economy and its sheer number of speakers. French just edges Spanish, both of which have a far-reaching geographic coverage. Arabic and Russian are geographically concentrated but span large land areas.

The top 6 languages – even if diplomacy is ignored – also happen to be the official languages of the United Nations. The remaining 4 in the top 10 include two other BRIC languages (Portuguese and Hindi), and the tongues of two economic heavyweights (Germany and Japan).

This index is a snapshot in time on the power of languages. It does not reflect on past trends or assesses trajectories. The score of Mandarin Chinese 10 years ago would have been lower and likewise 10 years hence it is likely to be higher. Neither is this index a measure of the beauty/merit of a language or its associated culture(s). Rather, it serves simply to show which languages are dominant in society and what doors are open to a speaker of a given language. Likewise, it is not a guide, *per se*, on which language(s) to learn as that is dependent on personal situation (including languages already known).

On a fun note, competitive polyglots may wish to calculate (and compare) their "polyglot language score" by summing the PLI scores of the languages they speak (possibly weighted to reflect fluency).

Full results (124 languages are ranked) and details on the methodology can be found here.