#### International Journal of Science and Research (IJSR) ISSN: 2319-7064

SJIF (2022): 7.942

# Detection of Ethno-Lingual Identity Using AI & ML

Nikhil Chandra Yadav<sup>1</sup>, Aditya Saini<sup>2</sup>, Vinny Sharma<sup>3</sup>

School of Basic and Applied Sciences, Galgotias University, Greater Noida, India

Abstract: Ethnolinguistic distinguishing proof could be a subjective sense of having a place or affiliation with a social gather characterized by comparable ethnic legacy and dialect differences. According to ethnolinguistic identity theory, people utilize communication accommodation methods such as verbal and nonverbal convergence to or divergence from their communication partner to stress affiliation or disaffiliation. These microlevel intergroup interactions have large-scale, macrolevel ramifications for language preservation and shift. Related theories highlight the relevance of ethnolinguistic identity in the acquisition of communicative competence in foreign languages and the process of ethnolinguistic group acculturation. Recent conceptualizations of bicultural and situational identities point to future study avenues by relying on developmental, socio-cognitive, and cultural psychology, as well as language acquisition psychology. Machine intelligence is referred to as Artificial Intelligence. It is the replication of natural intelligence in robots that have been programmed to learn and emulate human behavior. Machine learning, on the other hand, is used in internet search engines, email filters to filter out spam, websites to provide tailored recommendations, banking software to identify anomalous transactions, and many apps on our phones, such as voice recognition.

Keywords: Ethno-lingual identification, Artificial Intelligence, Machine Learning, Forensic Science

#### 1. Introduction

Because this project will be completely concentrated on AI and ML (Artificial Intelligence and Machine Learning), let's first define AI and ML. Artificial intelligence refers to the emulation of human mental forms by computers, particularly computer frameworks. Manufactured insights operations are exemplified by master frameworks, characteristic dialect preparing, discourse acknowledgment, and machine vision.

Artificial Intelligence refers to the intelligence demonstrated by computers. Artificial intelligence is becoming increasingly common in today's environment. It is the replication of mortal intellect in computers built to learn and emulate mortal behaviour. These machines can learn from their miscalculations and do mortal-suchlike tasks. Artificial intelligence (AI) will have a major impact on our quality of life as it develops. It's only natural that everyone moment wants to engage with AI technology in some way, whether as a consumer or as a professional. Machine literacy is a subfield in artificial intelligence (AI) and computer wisdom that focuses on using data and algorithms to replicate how people learn, with the goal of steadily improving delicacy. Machine literacy is a field of research as well as a sophisticated technology that enables computers to learn from data and improve themselves. Many of the services we use on a daily basis are based on it.

Machine learning is utilised in numerous apps on our phones, including hunt machines, spam pollutants, websites that induce personalised recommendations, banking software that detects suspicious deals, and speech recognition. There are a slew of more implicit operations for the technology, some with higher stakes than others. Unborn innovations may benefit UK economy while also having a significant social effect. Machine literacy, for example, may provide us with easily available' specific sidekicks to assist us in managing our life, and it may considerably improve the transportation system through robotization. The functioning

of tone-driving buses, as well as the healthcare system, by improving complaint opinion and acclimating therapy. Machine literacy might also be used for security applications, such as dispatch or internet geste analysis. The implications of these and other technical processes must be investigated immediately, and steps taken to guarantee that they are beneficial to society.

Ethnolinguistic identification is a subjective sense of belonging or constancy to a social group defined by a shared ethnic heritage and a shared language variation. According to the ethnolinguistic identity thesis, people utilise communication accommodation methods such as verbal and verbal confluence to or divergence from their communication partner to emphasise cooperation or disaffiliation. These microlevel intergroup relations have ramifications for language conservation and shift on a larger scale. Ethnolinguistic identity has an important part in the accession of communicative capability in foreign languages, according to affiliated fabrics.

The process through which ethnolinguistic groups are assimilated. Recent conceptualizations of bicultural and situational individualities provide unexplored research options by drawing on experimental, socio-cognitive, and aesthetic psychology, as well as the psychology of language literacy.

#### 2. Analysis and Discussion

Ethnolinguistic identification is a broad phrase that refers to a person's sense of belonging to a social group that is distinguished by its members' ethnic background and native language. Experimenters used to assign individualities to actors based on their ethnic and/or verbal backgrounds; however, the assumption that there is always a positive relationship between "objective" markers of ethnolinguistic background and specific passions of identification with that group has been largely refuted (Leets, Giles, & Clement,

Volume 11 Issue 5, May 2022

www.ijsr.net

<u>Licensed Under Creative Commons Attribution CC BY</u>

Paper ID: SR22505151954 DOI: 10.21275/SR22505151954 552

# International Journal of Science and Research (IJSR) ISSN: 2319-7064

SJIF (2022): 7.942

1996). An ethnolinguistic identity, like other social individualities, is determined in connection to other groups in a society context; hence, an individual's ethnolinguistic identity changes based on the other ethnolinguistic groups with whom the person interacts. Between ingroups, a contrastive or complementary comparison can be formed. When engaging with an English Canadian, for example, one can identify as a French Canadian, but when interacting with a Fransaskois, one can identify as an Acadien (a Francophone from the Canadian province of New Brunswick) (a Francophone hailing from the Canadian fiefdom of Saskatchewan).

This study examined the nature of restorative language 'using a series of social assessment methods such as pates, in-depth discussions, observations, and' ethnicauto-biography. The authors used a list of questions consisting of two hundredeighty-two question which included the following scenarios: social and human characteristics; attitude towards the Russian and Kazakh language. language choices in colourful contexts and periods of use; ideas about the technical need for Russian and Kazakh language, position of linguistic expertise; social interaction; and a variety of motifs.

The check was made by more than 1000 people during the 16-and 60-year period who responded to the check, which was conducted between January 2009 and December 2010. Beans were distributed to recipients from Mongolia, China, Tajakistan, Uzbekistan, Russia and Turkmenistan. Suddenly, the authors interviewed 600 Uzbek oralmen, 135 Mongolian, 104 Chinese, 77 Turkmenistan, 53 Russian, 31 Tajikistan. Pens carefully checked out a new collection of 65 repliers.

The experimenters also utilised methodologies that looked at the lives of bitsy primary and secondary groups, where personality, social identity models, and ethnical identity foundations crop. Urazaliyeva, figuratively, dismissed the term "ethno-auto-biography" and used it to teach students ethno-lingual identity. Students are assigned to write a paper to answer the questions "Who am I?" and "What does it cruel to me?" This approach provided researchers with an understanding of the ethnic background of a certain age group in Russian and Kazakh culture known as "children of perestroika" (Urazaliyeva).

Urazaliyeva, figuratively, abolished the term "ethno-autobiography" and used it to teach students ethno-lingual identity. Students are assigned to write a paper to answer the questions "Who am I?" and "What does it cruel to me?" This approach allotted researchers with an understandingthe racial makeup of a certain age group in Russian and Kazakh culture known as "children of perestroika" (Urazaliyeva). Ethno-lingual Relativity An ethno-lingually relative perspective appears to have two sub-components.

The primary is the acknowledgment that dialects are not total translation of each other which the way in which the first human dialect passes on the though makes sense. For example, I am the subject of the English phrase "I enjoy that joke," and I do things around me. When the Spanish dialect passes on the thought, "Me gust ese chiste," that touches me. The first part of ethno-lingual relativism is the

realization that the same concept can be expressed in different ways by being organized in each language and that no one is superior to the other. The second part of ethnorelated perspective is the ability to see to what extent a personal language fits into a culture. At the physical level, the occurrence of a non-foreign word phrase since the question is obscure to its speakers is an example of cultural commitment. Fruits and vegetables grown locally are at high risk. The second part of ethno-related perspective is the ability to see to what extent a personal language fits into a culture. At the physical level, the occurrence of a nonforeign word phrase since the question is obscure to its speakers is an example of cultural commitment. Fruits and vegetables grown locally are at high risk. A local Englishspeaking college understudy from the joined together States was once seen chatting with a Mexican local in Mexico City. Incapable to communicate with the other individual, the understudy turned to the lexicon for offer assistance. When he may not discover the word sap (such as "Three Saps") in a lexicon, the per user got to be confounded and uncertain of how to proceed the discussion. From an ethno-lingual relativity viewpoint, this student's failure to appreciate the social suggestions of the word sap would put him in a dubious position whereas learning Spanish.

#### 3. Related Studies

### The Whorf Hypothesis is a theory proposed by Dr. Whorf

When Whorf [1967 (1956) ] claimed that there could be discernible links between cultural and behavioural standards and large-scale language patterns, he attracted a great deal of attention. In spite of the fact that his articles don't talk specifically to moment dialect learning, they do bolster the thought of ethno-lingual connection. One might contend that since dialects reflect the social designs of their speakers, a language learner who is prepared to get a handle on these designs will advantage from learning a unused dialect.

#### **Individual Distinctions**

#### **Aptitude for Language**

Despite the limited amount of research on individual variability in second language learners, Peter Skehan's (1991) review article lists a number of regions where student contrasts have been appeared to be significant. In spite of the fact that the degree to which understudies have an ethnolingual connection is never considered to be a continuous phenomenon where students differ, two additional factors, language competence and motivation, may be related to language relationships and the appropriateness of additional assessment.

#### **Theory of Acculturation**

Acculturation research has distinguished four stages of social alteration that individuals experience as they become accustomed to a new culture: a time of happiness (or honeymoon), cultural shocks, cultural pressures, and recovery. Brown (1980) proposed a "right grade model, " which assumes that this study, in line with anomie studies, social class, and socially perceived distance, may help to determine the critical timeperiod for fruitful moment dialect learning inside a moment culture. Anomie is depicted as

Volume 11 Issue 5, May 2022

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

Paper ID: SR22505151954 DOI: 10.21275/SR22505151954 553

## International Journal of Science and Research (IJSR) ISSN: 2319-7064

SJIF (2022): 7.942

feeling homeless during the third stage of growth, when a person is not firmly rooted in his or her culture and is not well integrated into the second society. Study of Lambert's (1980: 159in Brown) found that this stage of adjustment coincided with a time when English-speaking Canadians were learning enough French to think and dream about. This study supports the theory of ethno-lingual relation by showing that when a person's relationship with language and culture is relaxed, he accepts other cultural ideas, and the skills of the second language grow significantly.

According to Schumann (Brown, 1980: 159), the greater the distance between two cultures, the harder it is for a learner to learn a new language; On the other hand, the smaller the social network, the easier it will be for the student to learn a new language. "The degree to which a learner goes to a target dialect gather will decide the level at which he or she learns a moment language, " he afterward said (Brown, 1980: 160). Since Schumann's hypothesis is based on the trouble of characterizing the scale of society, Acton (Brown, 1980: 160) recommended another way: that dialect learning of understudies is driven by a seen separate in society between societies. The ethno-lingual relativity theory is in line with Acton's as the seen social extend is related to the failure to acknowledge the unused social standards and dialects of the modern culture. Acton has created a Professional Difference Questionnaire for Attitude, a measure of the perceived social distance, which has asked students to rate it.

- Contrasts in perspectives with respect to beliefs of separate between them and their individual citizens in common.
- 2) Contrasts between them and individuals of the expecting target culture; and
- 3) The distinction between them and the individuals of the target culture in common.

Acton's theory differs in the theory of ethno-linguistic relativity because he felt that students would have difficulty learning a new language if they considered themselves too close or too far away from the original goal or culture. He pointed out that successful language learners see themselves creating a barrier between themselves and both cultures. However, because the measures he has taken have failed to predict the success of language acquisition, further research may support the simple notion of racial and linguistic relations.

#### **Failure in Pragmatics**

One last field of sociolinguistic study supports the idea of ethno-lingual relativity. According to Thomas, moment dialect learners may fall flat to communicate their eagerly since they don't get it the contrasts between communication traditions (in Wolfson, 1989: 15-18). When a fluent English speaker endeavours to interpret the designs of the English ask "Can you pass the salt?" into Russian, the first incidence of pragma linguistic failure occurs. The sentences would be viewed as a question rather than a request by a Russian addressee. The moment sort of down to earth disappointment distinguished by Thomas is socio-pragmatic disappointment, which includes knowing "what to say and to whom to say it" and can be caused by contrasts in appraisals of "estimate of burden, " "tabus, " "cross-culturally

distinctive appraisals of relative control or social remove, " and "esteem judgments" (Wolfson, 1989: 17). This contention underpins the ethno-lingual relativity theory, which highlights the complexity of second language communication as well as the failure to understand how second language language patterns and cultures differ from those of a native human language.

#### 4. Conclusion

In forensic science sometimes we come across cases where the suspect's or victim's ethnicity has to be identified using various number of identification factors like voice, physical and anthropological features etc. In such cases the examination of an individual's ethnicity may be identified using the other available identification factors but when it comes to the Ethno-Lingual identification then examining the individual's language for the same and that too without any digital tool, i. e., doing it manually, becomes a sturdy task for the examiner.

In this paper, the author has summarised the various studies conducted on the ethno-lingual identification and their acquisition. Based on the studies, it was concluded that the use of Artificial Intelligence and Machine Learning was used in prior studied but in India it hasn't been done yet.

After all the literature review and reviewing the prior studies, as it hasn't been done yet in India, we think that the use of Artificial Intelligence and Machine Learning can be used in the field of Forensic Science for Ethno-Lingual Identification and we will be starting the research over this topic for the sake of the future of forensic science.

#### References

- [1] Bokayev, B., Kazhenova, A., Zharkynbekova, S., Beisembayeva, G., &Nurgalieva, S. (2014). Adjustment and ethno-lingual identification of Kazakh repatriates: Results of sociolinguistic research. Journal of Sociology, 50 (4), 545-559.
- [2] Gqibitole, K. M. (2014). Ethno-lingual Issues. Counter Discourse in African Literature, 127.
- [3] Citron, J. L. (1995). Can cross-cultural understanding aid second language acquisition? Toward a theory of ethno-lingual relativity. Hispania, 105-113.
- [4] Citron, J. L. (1993). The Role of Ethno-Lingual Relativity in Second Language Acquisition. Working Papers in Educational Linguistics, 9 (2), 29-41.
- [5] Noels, K. A. (2017). Identity, ethnolinguistic. The International Encyclopedia of Intercultural Communication, 1-10.
- [6] Brown, H. D. (1980). The Optimal distance model of secondlanguageacquisition. TESOL Quarterly, 14 (2), 157-164.
- [7] Clavijo, F. J. (1984). Effects of teaching cultureon attitude change. Hispania, 67, 88-91.
- [8] Crookes, G. & Schmidt, R. (1991). Motivation: Reopening the research agenda. Language Learning, 41 (4), 469-512.
- [9] Fantini, A. E. (1993). Becoming better global citizens: The promiseofintercultural competence. Odyssey, Fall, 1993, 17-19.

Volume 11 Issue 5, May 2022

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

Paper ID: SR22505151954 DOI: 10.21275/SR22505151954 554

### International Journal of Science and Research (IJSR) ISSN: 2319-7064

ISSN: 2319-7064 SJIF (2022): 7.942

- [10] Fishman, J. (1981). Language policy: Past, present and future. In C. A. Ferguson&S. Bi'ice Heath (Eds.), Languages in the USA (pp.516-526). New York: CambridgeUniversity Press.
- [11] Gardner, R. C., & Lambert, W. E. (1959). Motivational variables insecondlanguageacquisition. Canadian Journal of Psychology, 13, 266-272.
- [12] Gillette, B. (1992, October). Improving student attitudes through explicit culture teaching. Paper presented at the Penn TESOL East Fall Conference, West Chester, PA.
- [13] Kauffman, N. L., Martin, J. N., Weaver, H. D., & Weaver, J. (1992). Students abroad: Strangers at home. Yarmouth, ME: Intercultural Press.
- [14] Kellerman, E. (1979). Transfer and non-transfer: Where are we now? SSLA, 2, 37-57.
- [15] Kohls, L. R. (1984). The values Americans live by. Washington, D. C.: Meridian HouseInternational.
- [16] Larsen-Freeman, D. & Long, M. (1991). An introduction to second language acquisitionresearch. New York: Longman.
- [17] Pease, D. M., Berko Gleason, J., & Pan, B. A. (1993). Learning the meaning of words: Semantic development and beyond. In J. Berko Gleason (Ed.), The development of language (pp.115-149). New York: Macmillan.
- [18] Schumann, J. H. (1978). Social and psychological factors in secondlanguage acquisition. In J. C. Richards, (Ed.), Understanding second and foreign languagelearning issues and approaches (pp.163-178). Rowley, MA: Newbury House.
- [19] Skehan, P. (1991). Individual differences in second language learning. SSLA, 12 (2), 275-98.
- [20] Spolsky, B. (1989). Conditions for second language learning. Oxford: Oxford UniversityPress.
- [21] Whorf, B. L. [1967 (1956)]. Language, thought, and reality. Cambridge, MA: MIT Press.
- [22] Wolfson, N. (1989). Perspectives: Sociolinguistics and TESOL. New York: Harper &Row.

Volume 11 Issue 5, May 2022 www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

555

Paper ID: SR22505151954 DOI: 10.21275/SR22505151954