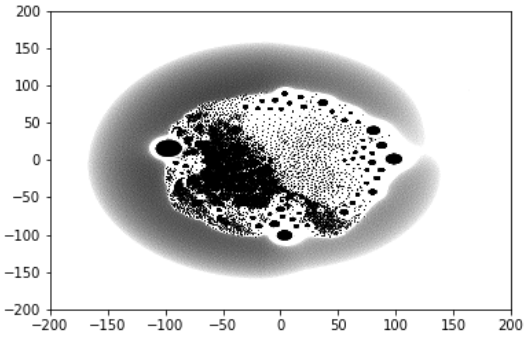
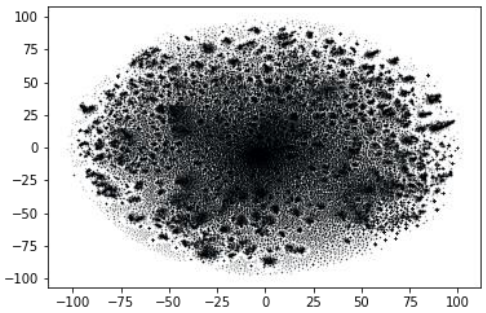
TSNE

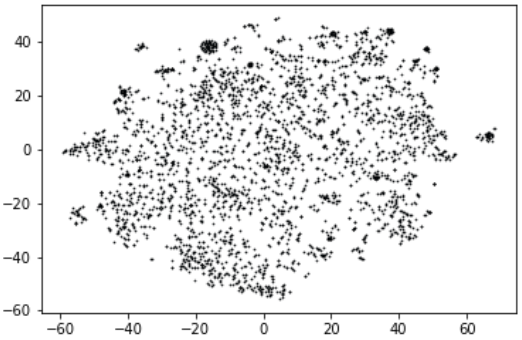
Unigram



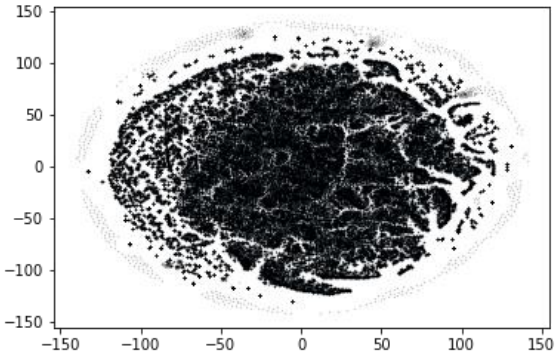
(1) Amharic



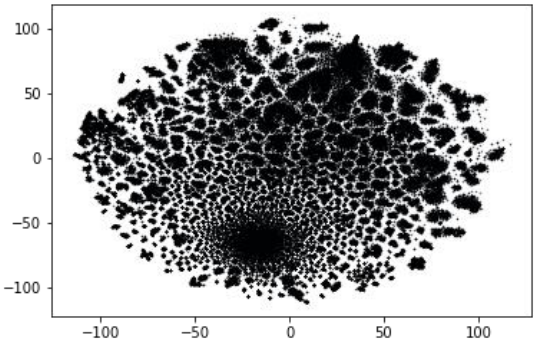
(2) Arabic



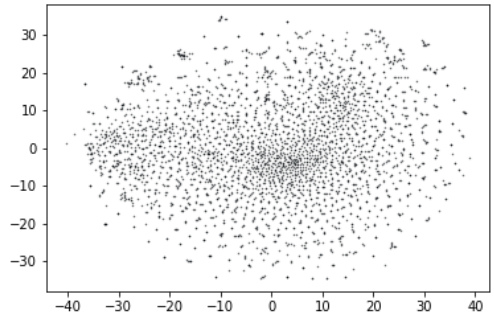
(3) Atikamekw



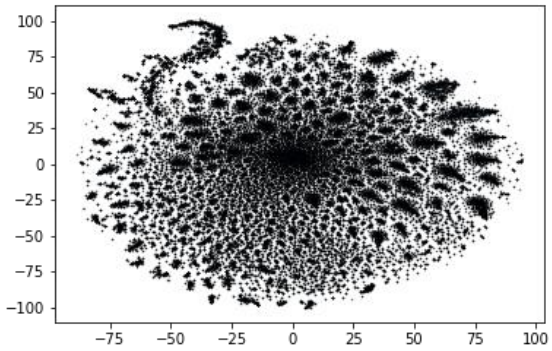
(4) Basque



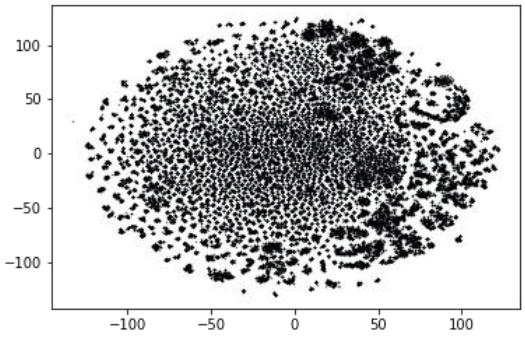
(5) Belarusian



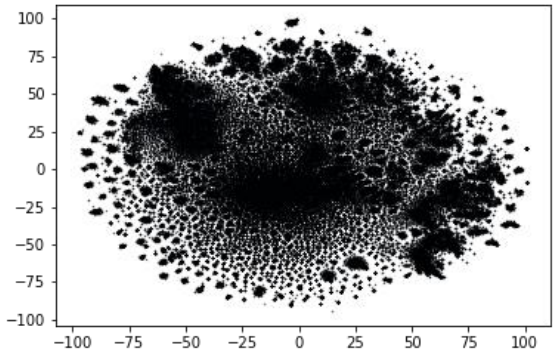
(6) Bengali



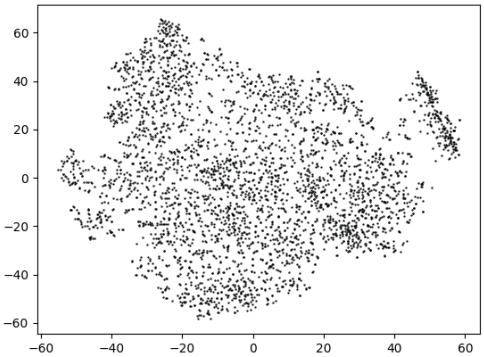
(7) Bulgarian



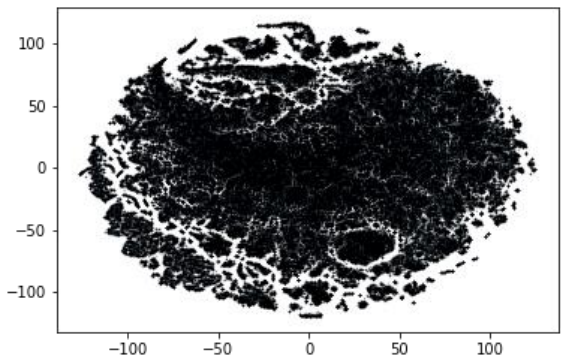
(8) Chechen



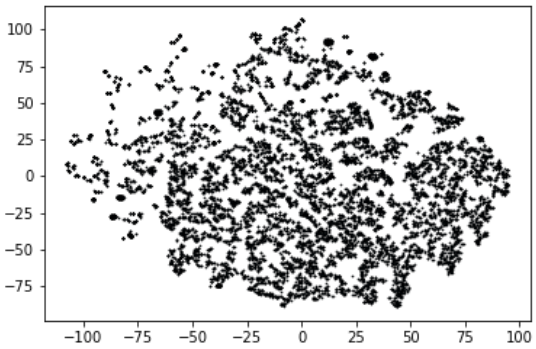
(9) Chinese



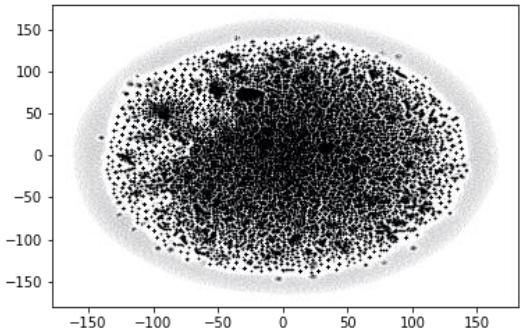
(10) Coptic



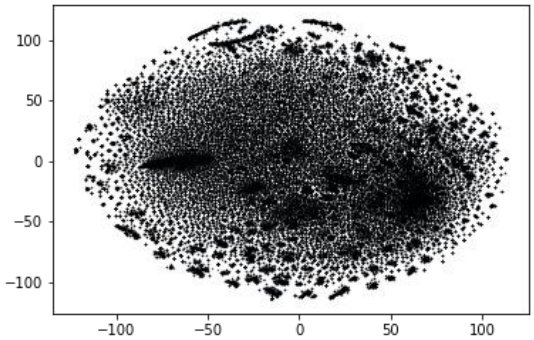
(11) Czech



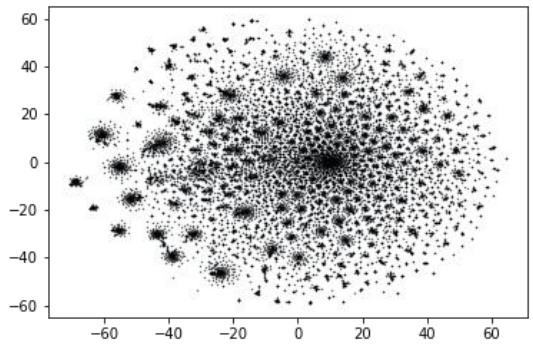
(12) Dholuo



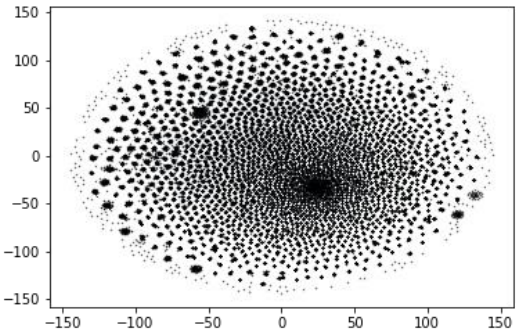
(13) Dutch



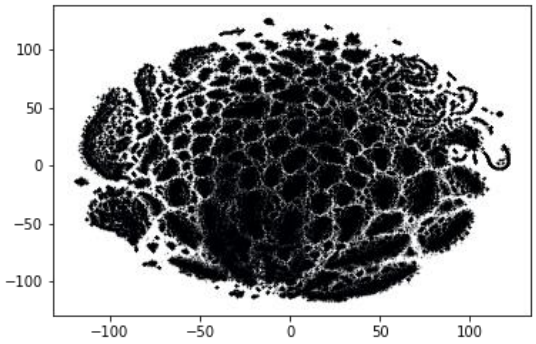
(14) English



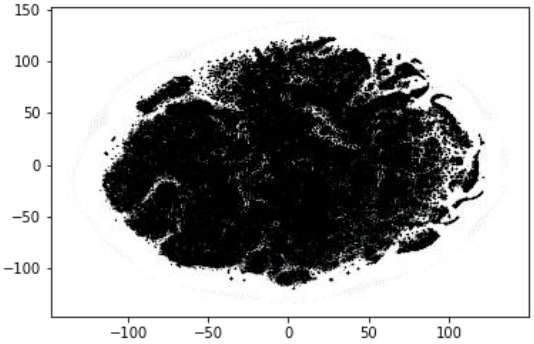
(15) Esperanto



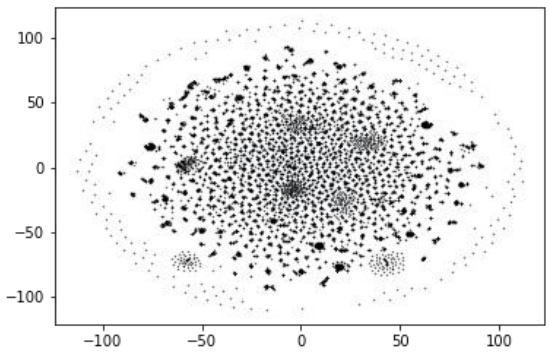
(16) Finnish



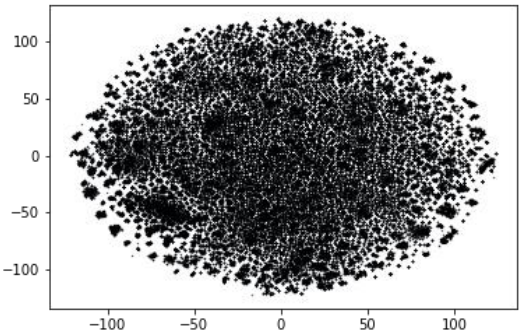
(17) French



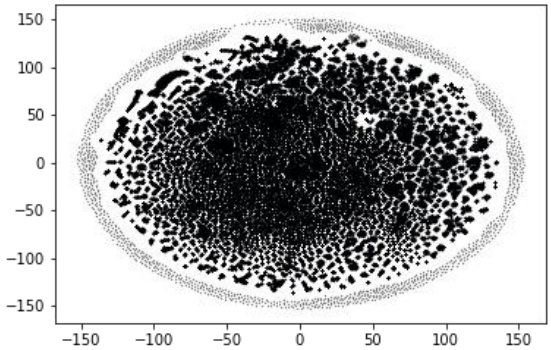
(18) German



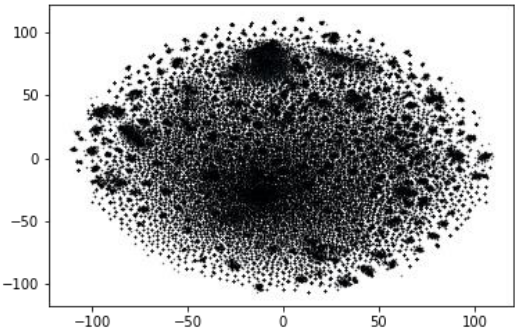
(19) Hindi



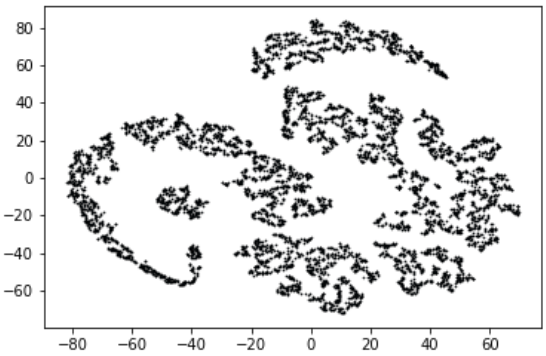
(20) Icelandic



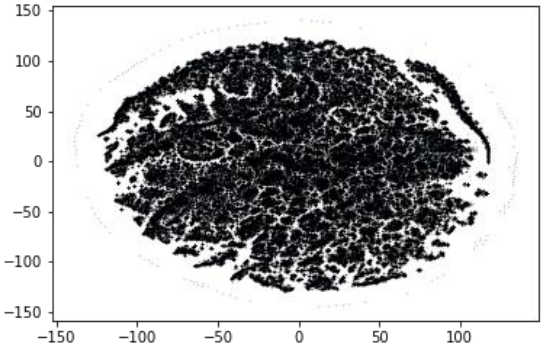
(21) Indonesian



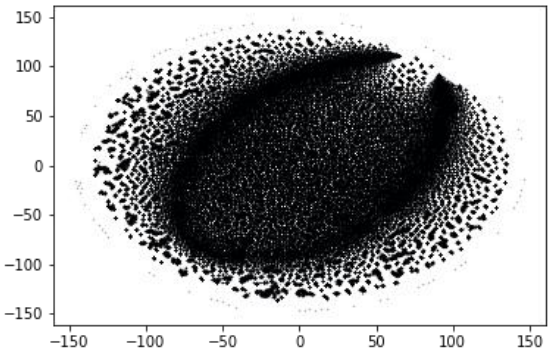
(22) Japanese



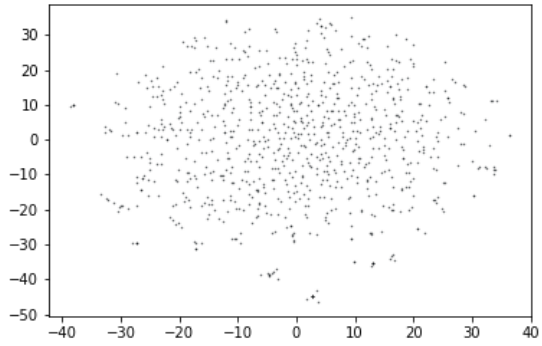
(23) Kabyle



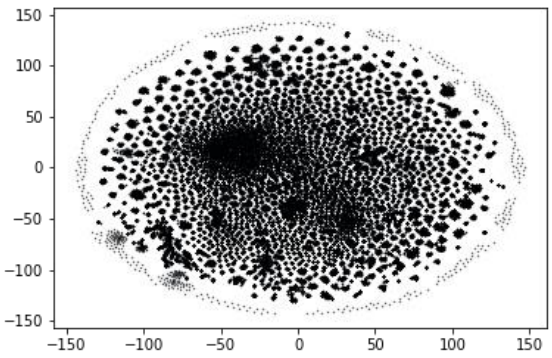
(24) Kazakh



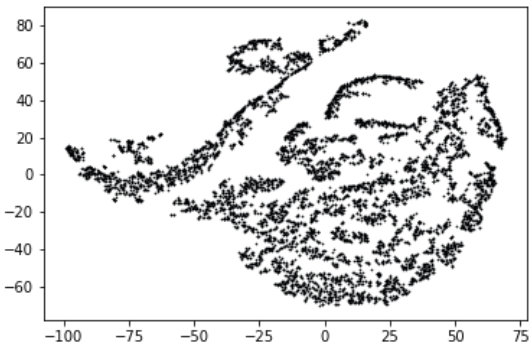
(25) Latin



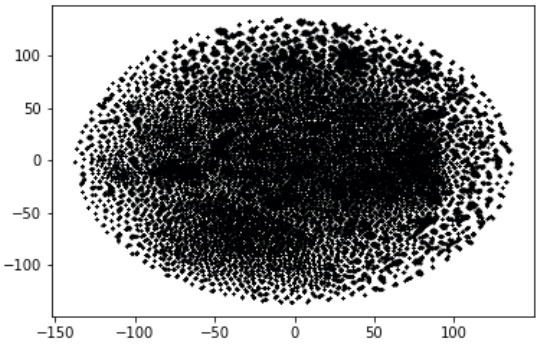
(26) Hungarian



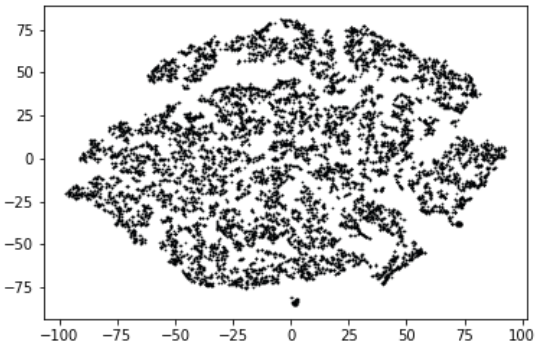
(27) Malayalam



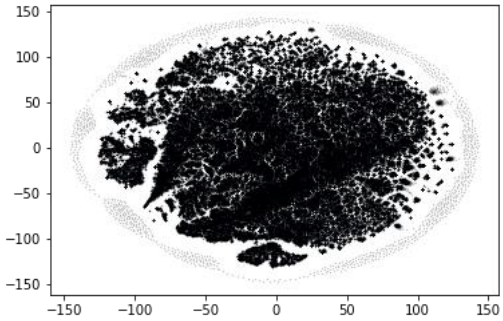
(28) Navajo



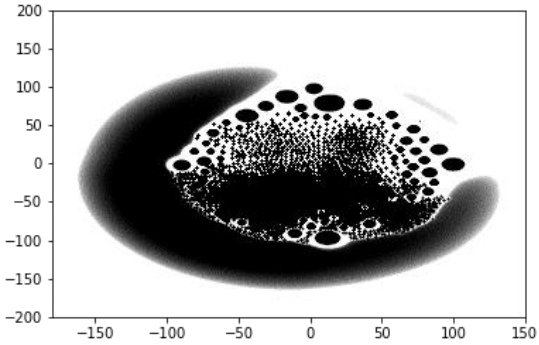
(29) Norwegian



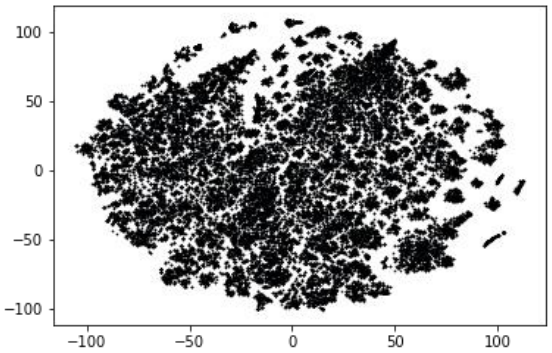
(30) Oromo



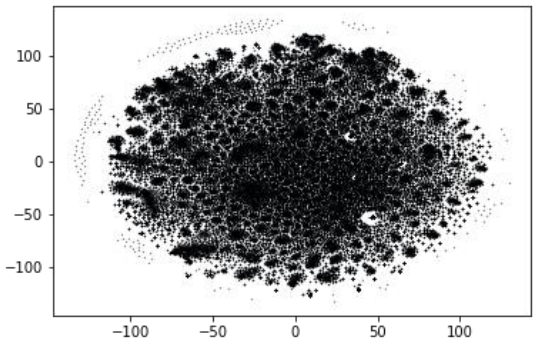
(31) Ossetian



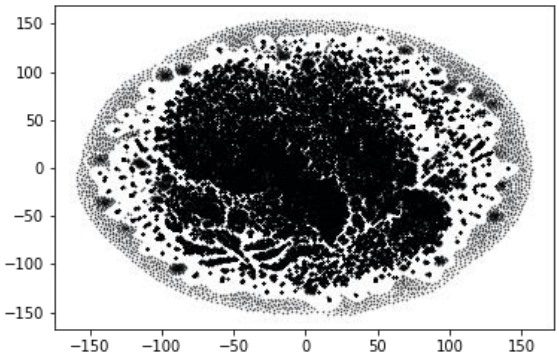
(32) Persian



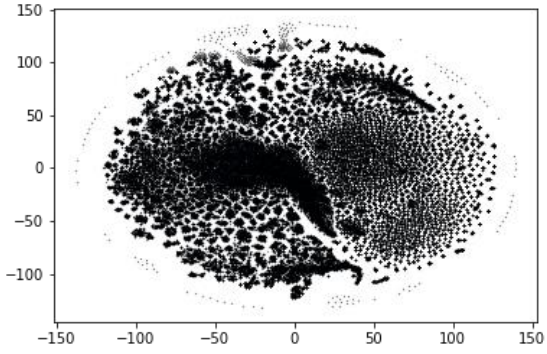
(33) Polish



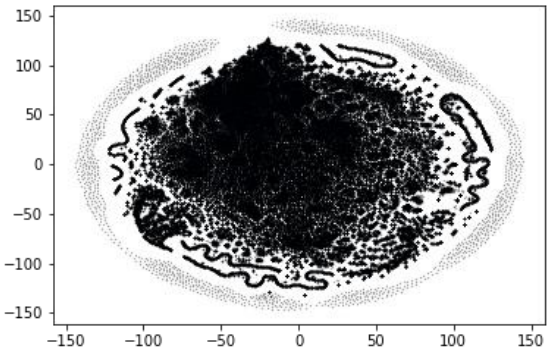
(34) Punjabi



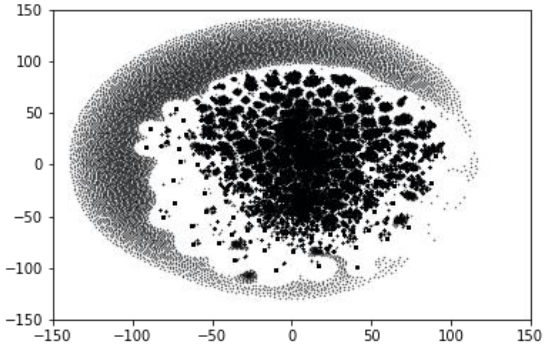
(35) Quechua



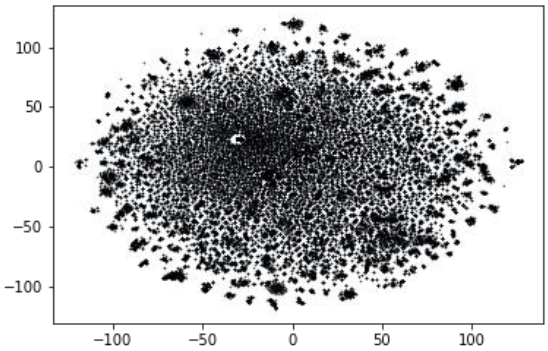
(36) Romanian



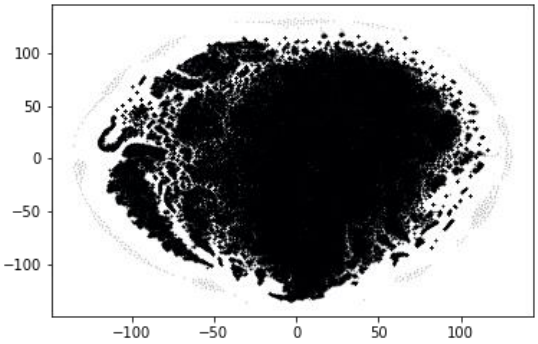
(37) Russian



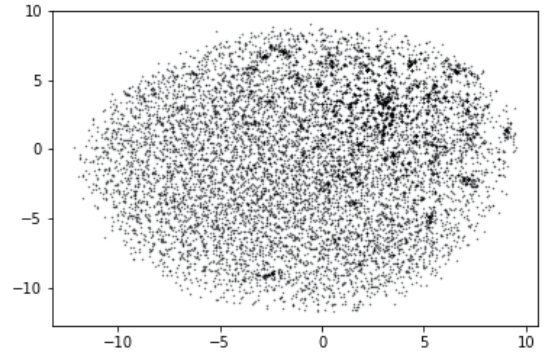
(38) Serbian



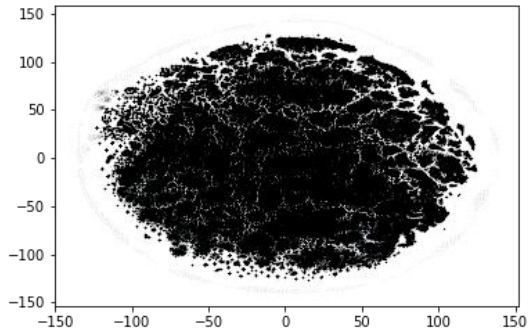
(39) Sinhala



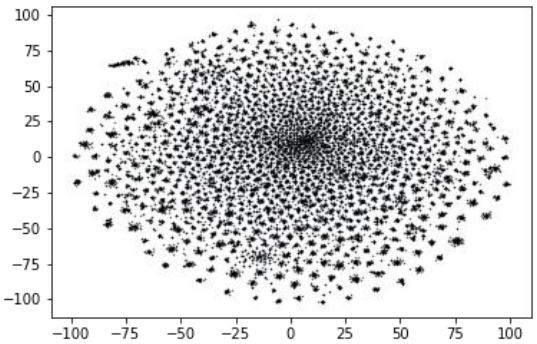
(40) Spanish



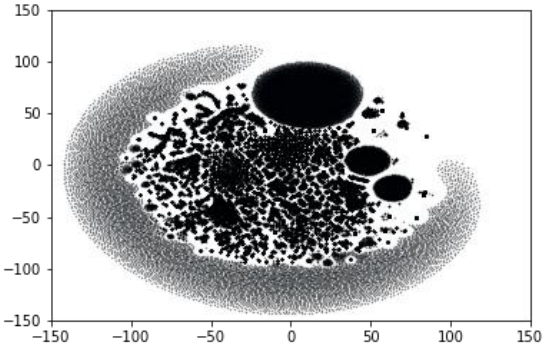
(41) Swahili



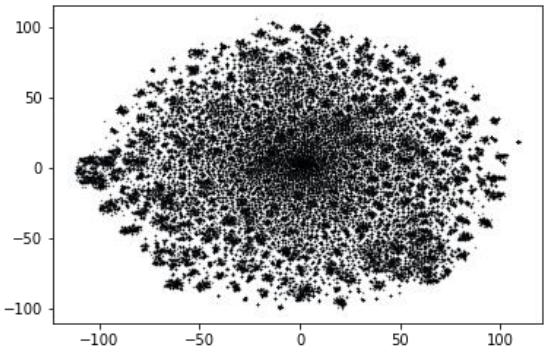
(42) Swedish



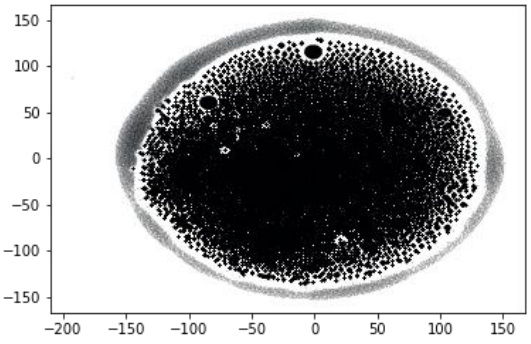
(43) Tabasaran



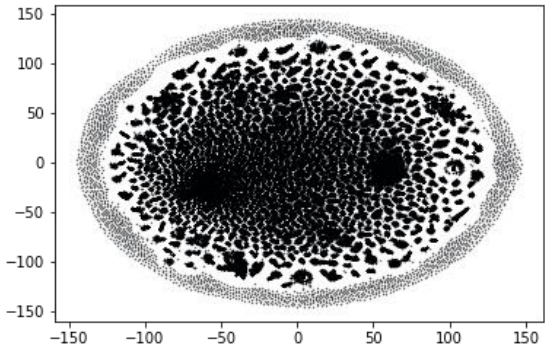
(44) Tagalig



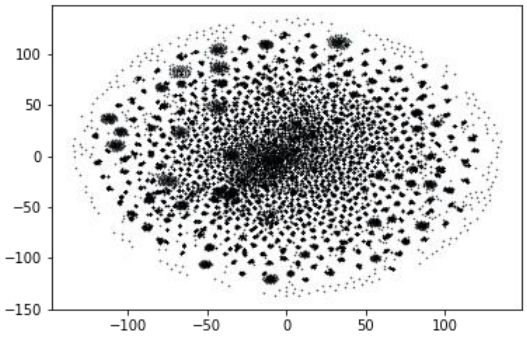
(45) Tatar



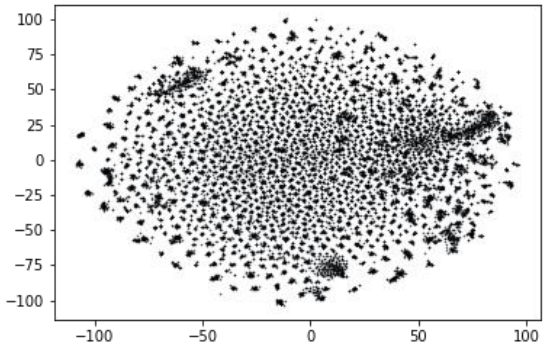
(46) Thai



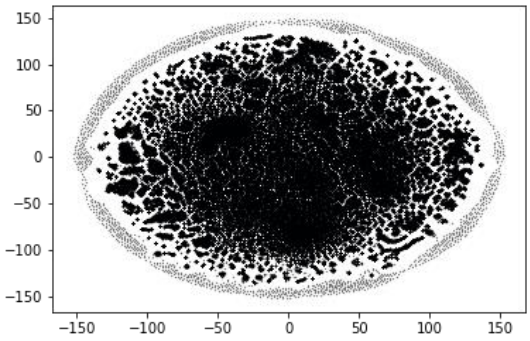
(47) Turkish



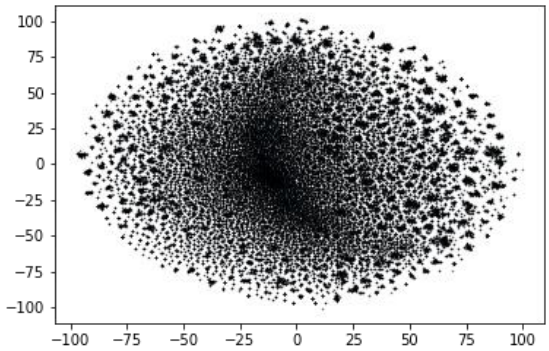
(48) Tuvan



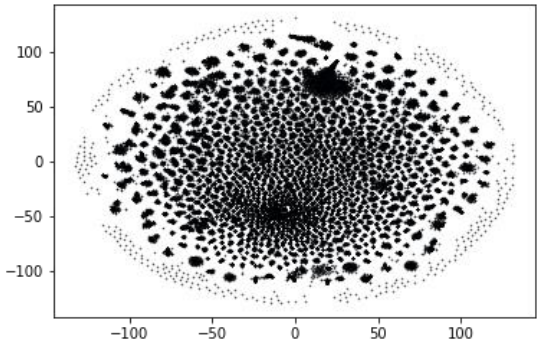
(49) Udmurt



(50) Ukrainian



(51) Uzbek

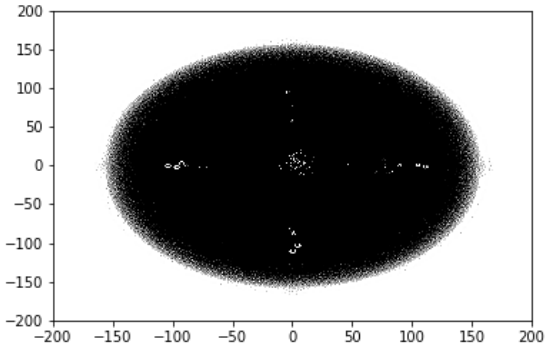


(52) Vietnamese

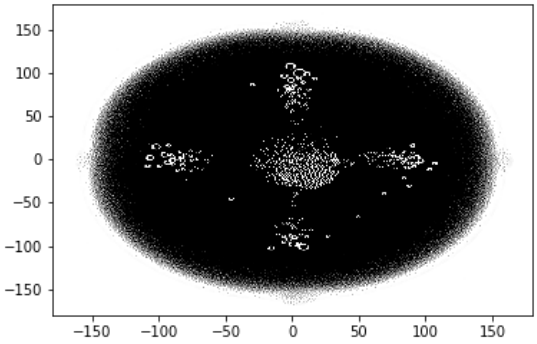
Fig. 8: t-SNE visualization of Unigram for 52 languages.

TSNE

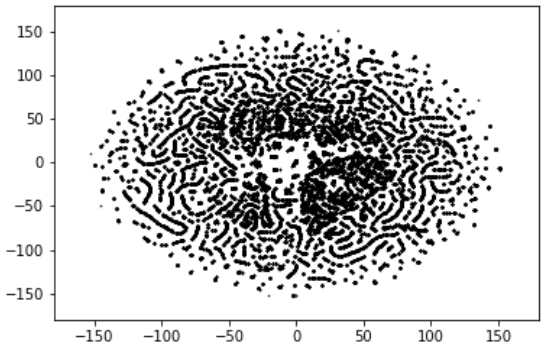
Bigrams



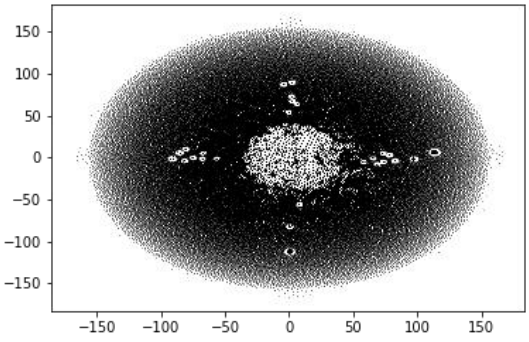
(1) Amharic



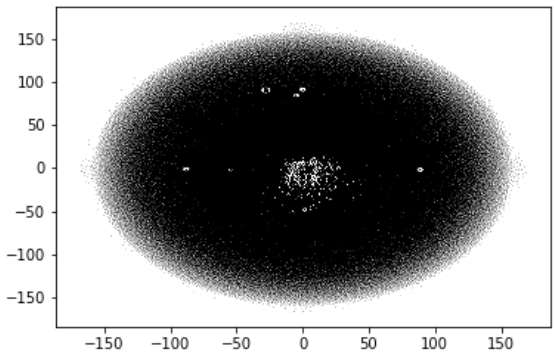
(2) Arabic



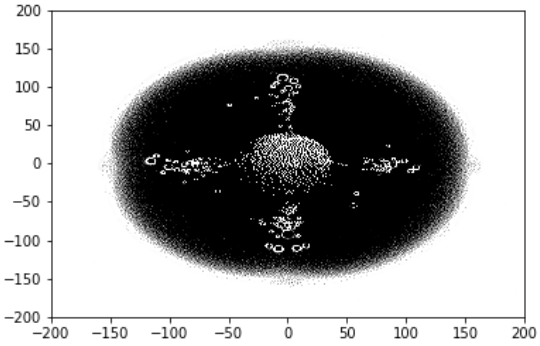
(3) Atikamekw



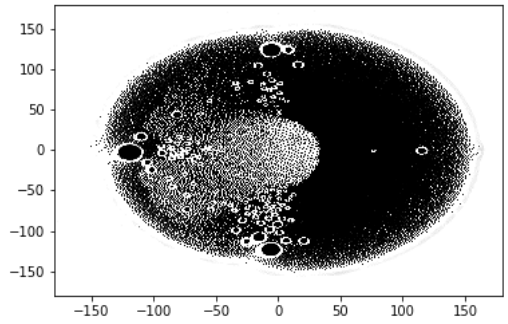
(4) Basque



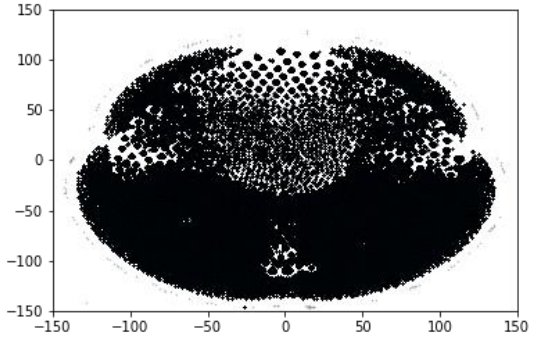
(5) Belarusian



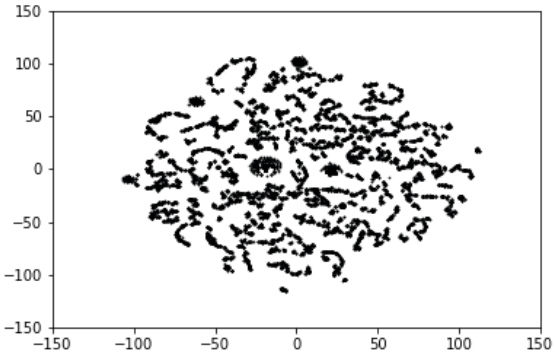
(6) Bengali



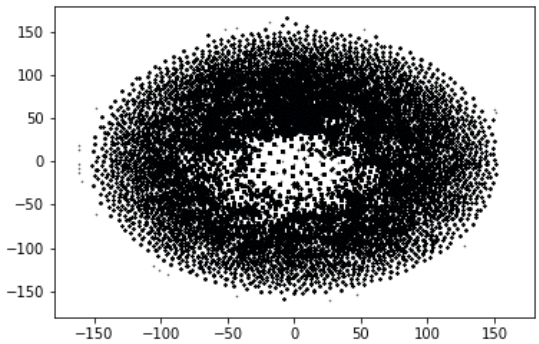
(7) Bulgarian



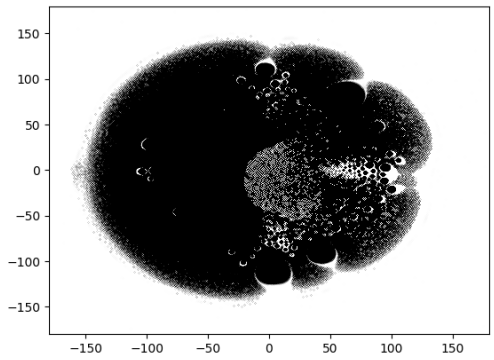
(8) Chechen



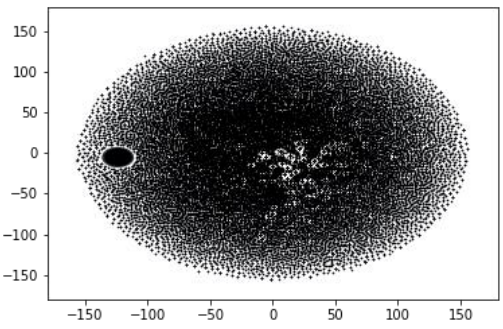
(9) Chinese



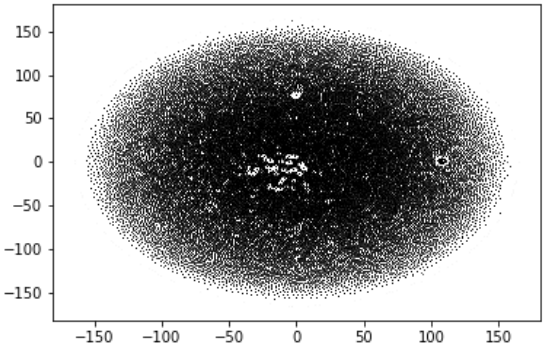
(10) Coptic



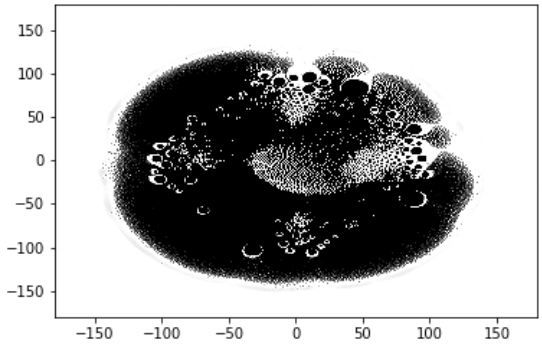
(11) Czech



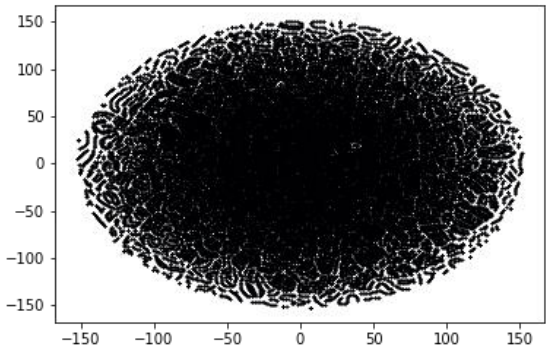
(12) Dholuo



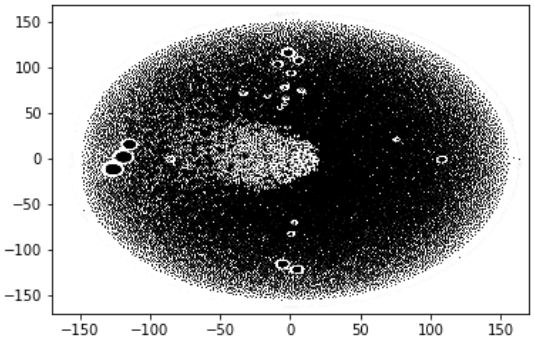
(13) Dutch



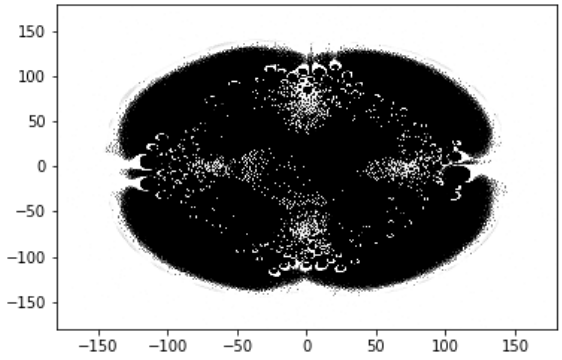
(14) English



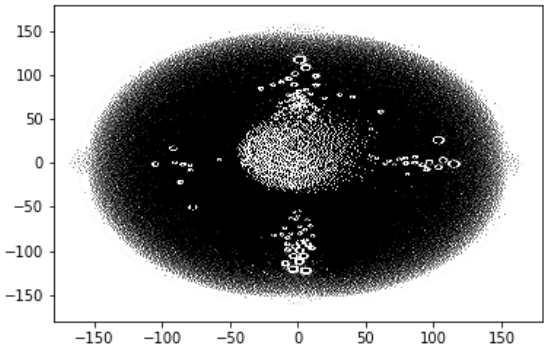
(15) Esperanto



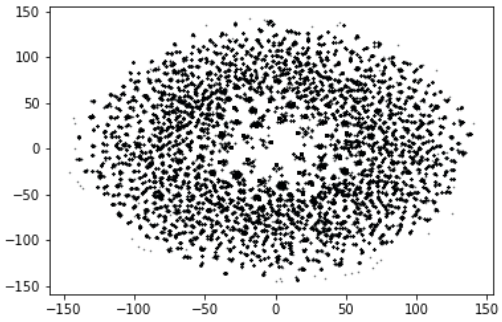
(16) Finnish



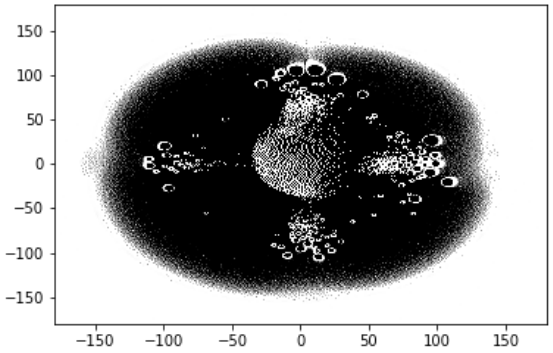
(17) French



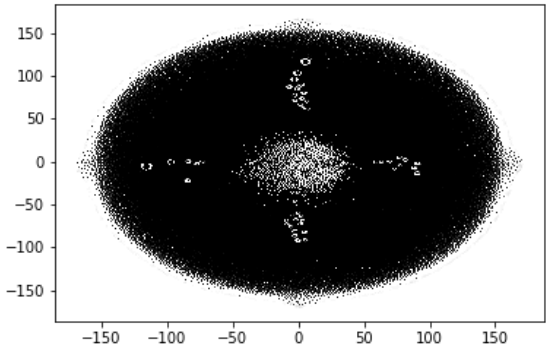
(18) German



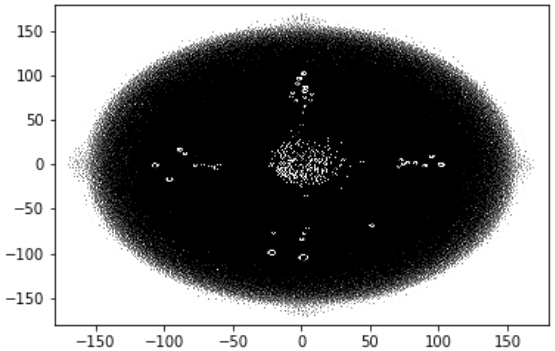
(19) Hindi



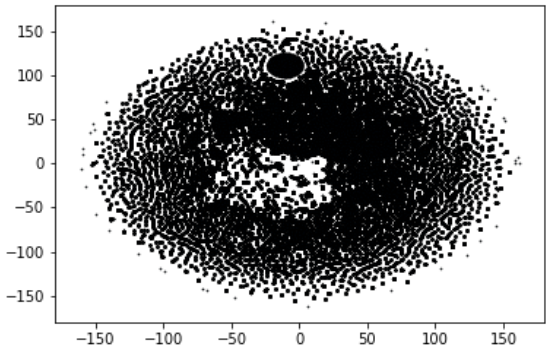
(20) Icelandic



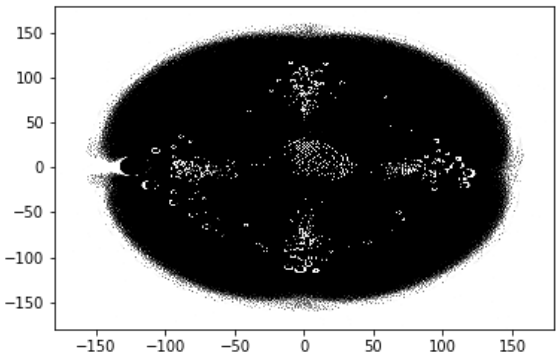
(21) Indonesian



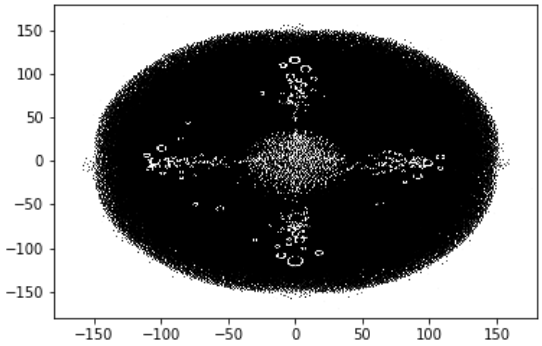
(22) Japanese



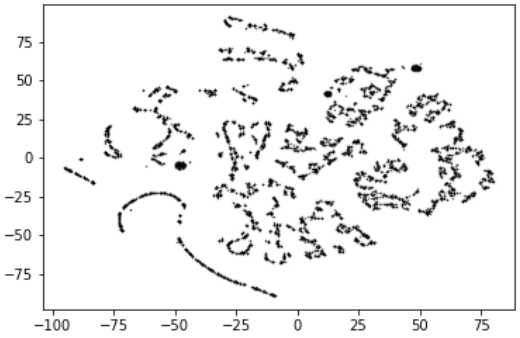
(23) Kabyle



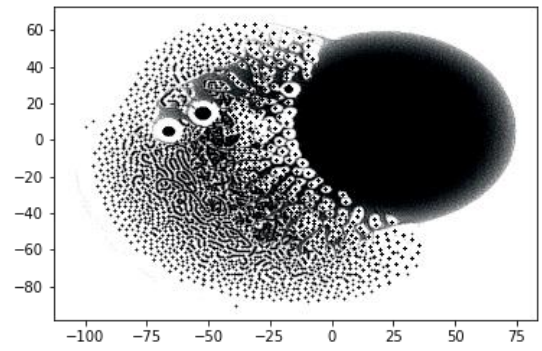
(24) Kazakh



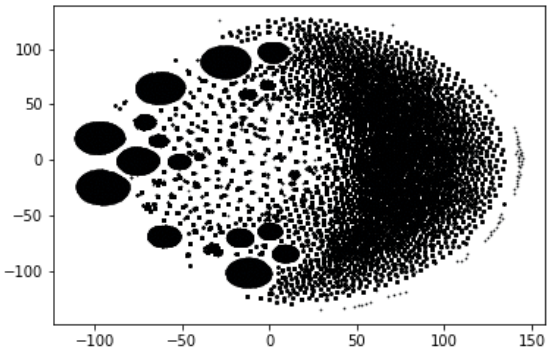
(25) Latin



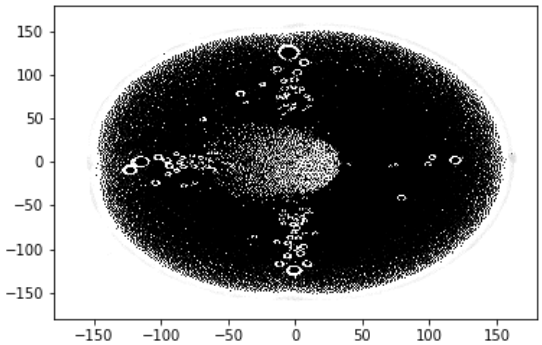
(26) Hungarian



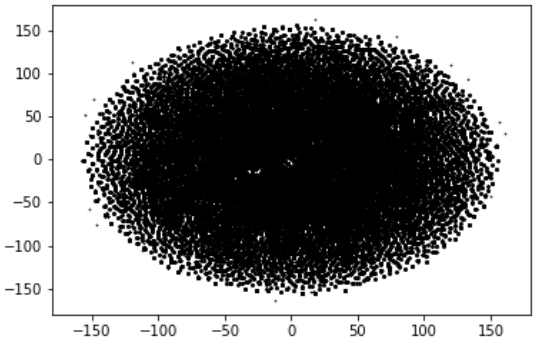
(27) Malayalam



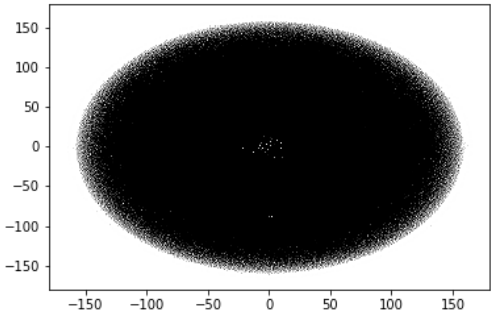
(28) Navajo



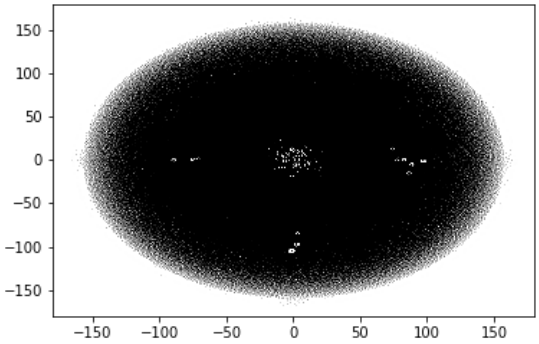
(29) Norwegian



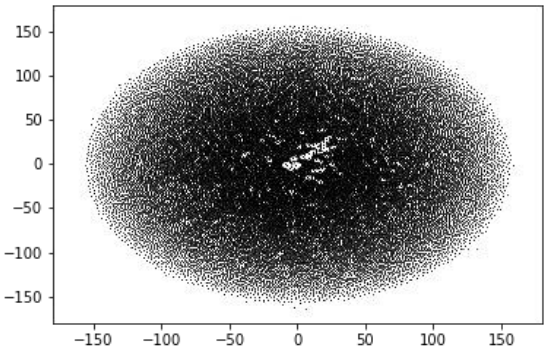
(30) Oromo



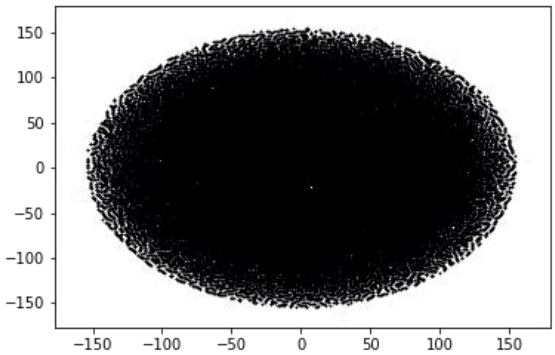
(31) Ossetian



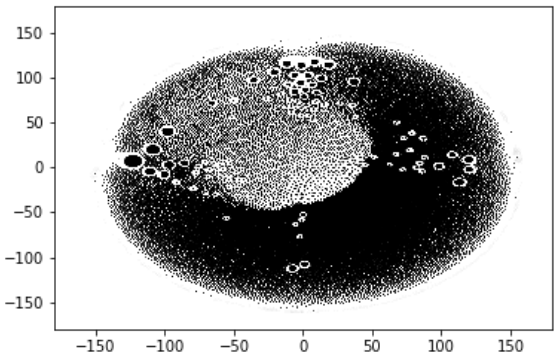
(32) Persian



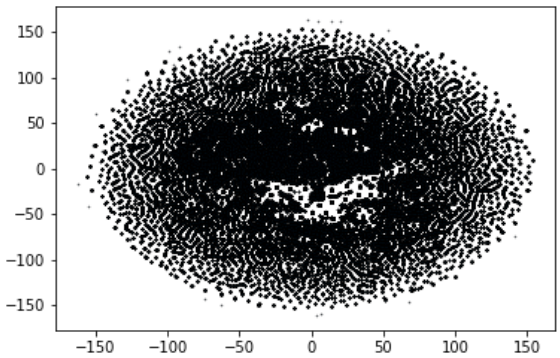
(33) Polish



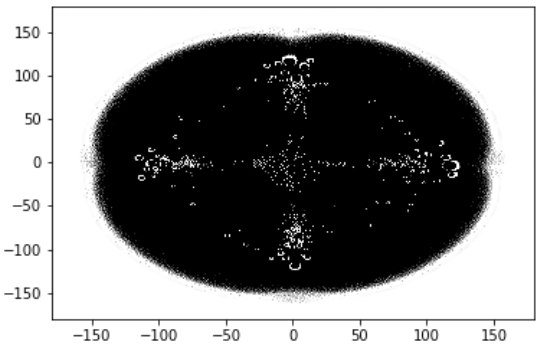
(34) Punjabi



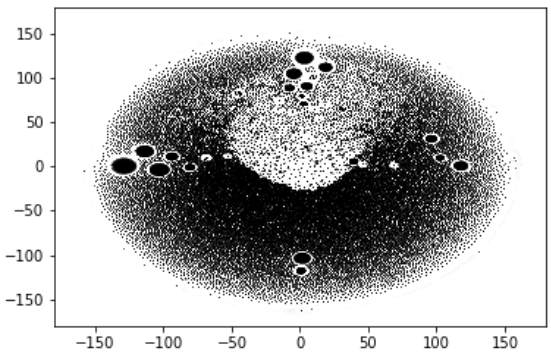
(35) Quechua



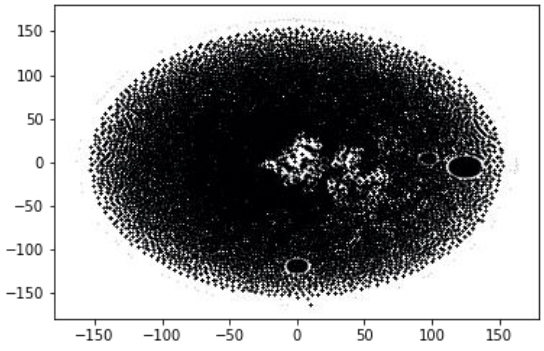
(36) Romanian



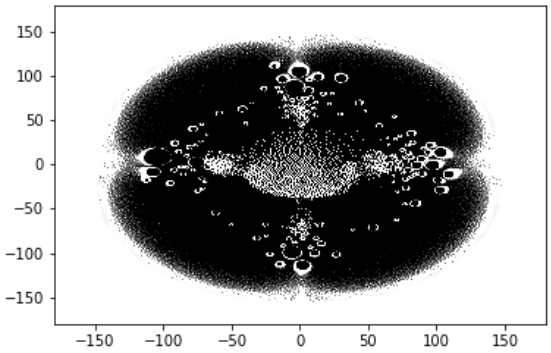
(37) Russian



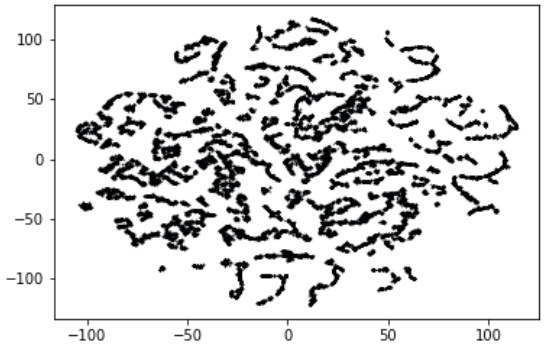
(38) Serbian



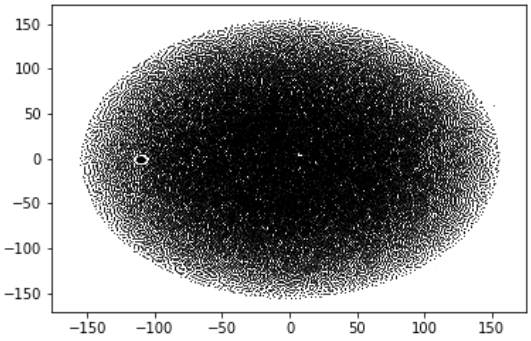
(39) Sinhala



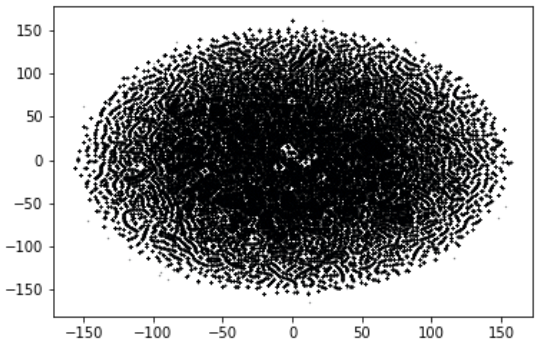
(40) Spanish



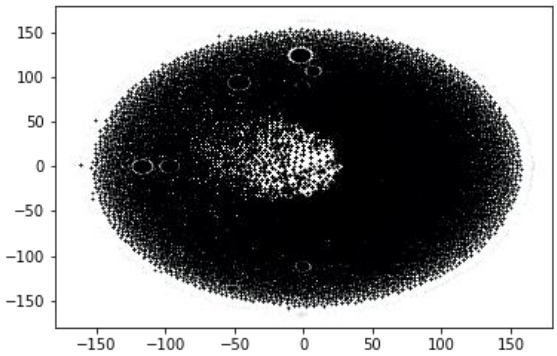
(41) Swahili



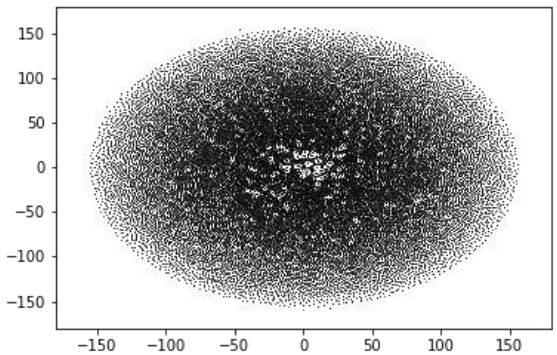
(42) Swedish



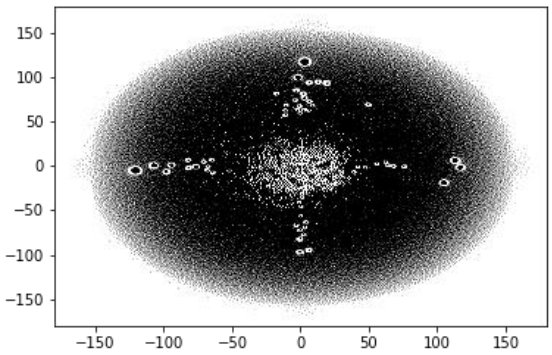
(43) Tabasaran



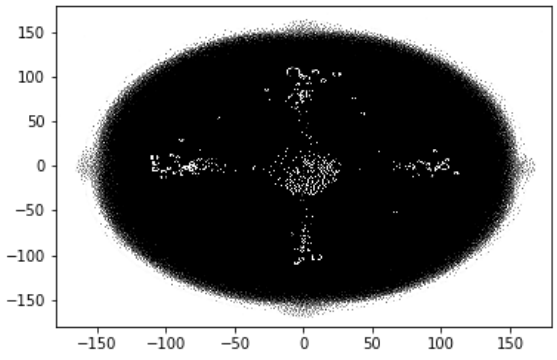
(44) Tagalig



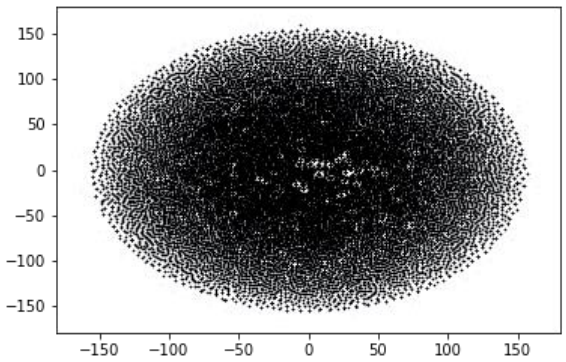
(45) Tatar



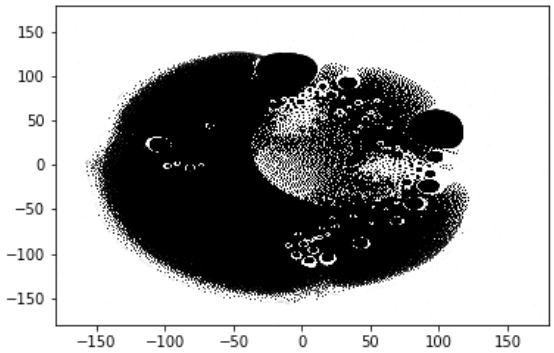
(46) Thai



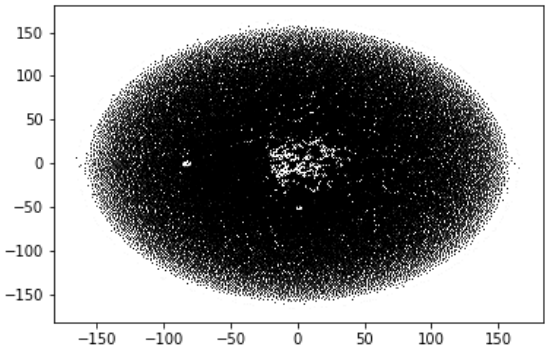
(47) Turkish



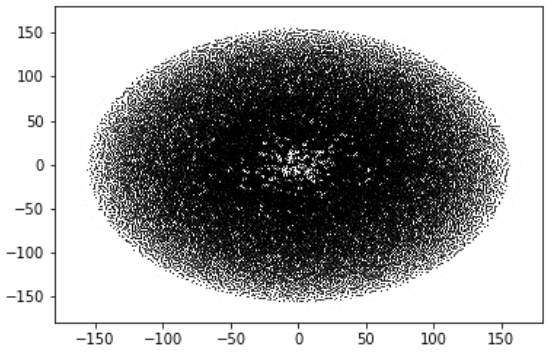
(48) Tuvan



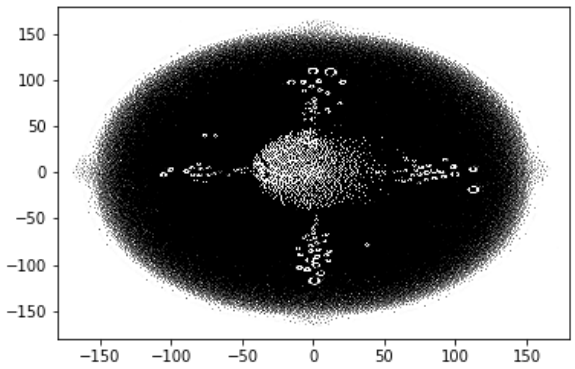
(49) Udmurt



(50) Ukrainian



(51) Uzbek



(52) Vietnamese

Fig. 9: t-SNE visualization of bigrams for 52 languages.