

**ANDIJON DAVLAT CHET TILLARI INSTITUTI
HUZURIDAGI ILMIY DARAJALAR BERUVCHI
PhD.03/29.12.2022.Fil.156.01 RAQAMLI ILMIY KENGASH**

NAVOIY DAVLAT PEDAGOGIKA INSTITUTI

MAXAMMADOV BOBIR ISAN O'G'LI

**ANDROID OPERATSION TIZIMI MOBIL ILOVALARI
TERMINLARINING O'ZBEK, RUS, INGLIZ TILLARIDA BERILISHI**

**10.00.06 – Qiyosiy adabiyotshunoslik, chog'ishtirma tilshunoslik
va tarjimashunoslik**

**FILOLOGIYA FANLARI bo'yicha falsafa doktori (PhD) dissertatsiyasi
AVTOREFERATI**

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**Contents of dissertation abstract of doctor of philosophy (PhD) on
philolohical sciences**

**Оглавление автореферата диссертации доктора философии (PhD)
по филологическим наукам**

Maxammadov Bobir Isan o'g'li

Android operatsion tizimi mobil ilovalari terminlarining o'zbek, rus, ingliz
tillarida berilishi 5

Makhammadov Bobir Isan ugli

Android operating system mobile application terms in Uzbek, Russian, and
English languages 25

Махаммадов Бобир Исан угли

Термины мобильных приложений операционной системы android на
узбекском, русском и английском языках 47

E'lon qilingan ishlar ro'yxati

List of published works

Список опубликованных работ 51

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KIRISH (falsafa doktori (PhD) dissertatsiyasi annotatsiyasi)

Dissertatsiya mavzusining dolzarbligi va zarurati. Jahonda axborot-kommunikatsiya texnologiyalari yordamida android operatsion tizimida mobil ilovalarning yaratilishi jadal sur'atlarda kechmoqda. Mazkur jarayon mobil ilova terminologiyasiga oid yangi tushunchalarning dunyo tillariga kirib kelishiga sabab bo'lmoqda. Bu holat, o'z navbatida, mobil ilovalarda ishlatilgan o'zbek, rus, ingliz tilidagi terminlarning lingvistik xususiyatlarini o'rganish, ya'ni, semantik va strukturaviy jihatdan tahlil qilish hamda leksikografik xususiyatlarini aniqlash, tarjima uslublarini takomillashtirish, uch tilli lug'atlarni yaratish kabi muhim topshiriqlarni kun tartibiga qo'yadi.

O'zbekiston Respublikasi Prezidentining tashabbusi bilan mustaqillikning dastlabki yillaridan boshlab ko'plab rivojlangan davlatlar bilan teng huquqli ijtimoiy-iqtisodiy, madaniy-ma'rifiy aloqalar o'rnatildi. Bugungi kunda ushbu aloqalarning rivojlanishi davom etayotgani asnosida ijtimoiy-iqtisodiy sohalaridagi hamkorlik natijasida jamiyat hayotiga mobil ilovalar keng moslashtirib borilmoqda va shuning barobarida ayni sohaga taalluqli ko'plab yangi tushuncha hamda terminlar kirib keldi. So'nggi yillarda bunday ilovalarning ko'payib ketayotgani natijasida mazkur sohaning zamonaviy leksikasini tadqiq qilish va terminologik apparatini tartibga solishga yo'naltirilgan muayyan ilmiy izlanishlar amalga oshirilishiga, ayni soha terminlari va tushunchalarining standartlari ishlab chiqilishiga, izohli lug'atlar yaratilishiga ulgurilmay qolmoqda.

Jahon tilshunosligida axborot-kommunikatsiya texnologiyalari terminlarini tartibga olish ishlari bir til terminlari doirasida ham, bir necha til terminlari doirasida ham amalga oshirilgan, shu bilan bir qatorda, ayni soha terminlari muayyan darajada tartibga solinib, ko'proq shu sohaga e'tibor qaratilgan bo'lsa-da, lekin mobil ilovalarning terminologiyasiga qiziqish bildirilmagan. Bunga esa ingliz leksik-semantikasida terminlarning faqatgina ma'nosi o'zgarishi orqali ilovalarda qo'llanilgani sabab bo'lgan.

Milliy tilshunoslikda ham android operatsion tizimi mobil ilovalari terminlarining lingvistik xususiyatlari (leksikografik, semantik va tarjimaviy) haligacha aniqlanmagan va soha terminlarini tartibga solish mezonlari ishlab chiqilmagan. Shunga ko'ra, mobil ilova terminlarining mavzuviy guruhlarini aniqlash, leksik-semantik xususiyatlarini asoslash, terminlarning strukturaviy modellarini yoritish, o'zlashma va baynalminal terminlarning milliy tillarda barqarorlashuv jarayonlarini tadqiq qilish, tarjima qilish uslublarini takomillashtirish, terminlardagi sinonimik, antonimik va variantlilik holatlarini tartibga solish hamda maqbullarini qo'llash yuzasidan takliflar berish, leksikografik izohlarini ko'paytirish, tarjima lug'atlarini tuzish kabi masalalarning hal etilishi sifatli mobil ilovalar yaratilishi bilan birga, foydalanuvchilarga muayyan darajada yengillik yaratilishiga olib keladi.

Mazkur tadqiqot ishi O'zbekiston Respublikasi Prezidentining raqamli texnologiyalarni rivojlantirishga doir 2020-yil 28-apreldagi "Raqamli iqtisodiyot va elektron hukumatni keng joriy etish chora-tadbirlari to'g'risida"gi

PQ-4699-son qarori¹ hamda 2020-yil 5-oktabrdagi “Raqamli O‘zbekiston — 2030” strategiyasini tasdiqlash va uni samarali amalga oshirish chora-tadbirlari to‘g‘risida”gi PF – 6079 – son farmoni², shuningdek, O‘zbekiston Respublikasi Prezidentining 2021-yil 19-maydagi “O‘zbekiston Respublikasida xorijiy tillarni o‘rganishni ommalashtirish faoliyatini sifat jihatidan yangi bosqichga olib chiqish chora-tadbirlari to‘g‘risida” PQ – 5117 – son qarorida³ hamda ushbu sohalarga tegishli me‘yoriy-huquqiy hujjatlarda belgilangan vazifalarni amalga oshirishga muayyan darajada xizmat qiladi.

Tadqiqotning respublika fan va texnologiyalari rivojlanishining ustuvor yo‘nalishlariga mosligi. Tadqiqot ishi respublika fan va texnologiyalar rivojlanishining I. “Demokratik va huquqiy jamiyatni ma‘naviy-axloqiy va madaniy rivojlantirish, innovatsion iqtisodiyotni shakllantirish” va III. “Axborotlashtirish va axborot-kommunikatsiya texnologiyalarini rivojlantirish”⁴ ustuvor yo‘nalishlari doirasida bajarilgan.

Muammoning o‘rganilganlik darajasi. Jahon tilshunosligida terminologiya va leksikografiya, xususan, terminografiya bo‘yicha filologik hamda sohaviy lug‘atlarning ahamiyati, ularni tuzish, terminologik birliklarning soha bo‘yicha o‘ziga xos jihatlarini ajratib ko‘rsatish, shuningdek, ularni umumiy filologik yoki maxsus lug‘atlarda keltirish, birliklarni izohlash bo‘yicha salmoqli tadqiqotlar amalga oshirilgan, qator yutuqlar qo‘lga kiritilgan⁵. Milliy tilshunosligimizda ham lug‘atchilikka e‘tibor tilshunoslikning eng muhim tarmog‘i sifatida Mahmud Qoshg‘ariy davridanoq boshlangan.

O‘zbek tilshunosligida terminologiyaning leksikografik xususiyatlariga bag‘ishlangan qator tadqiqotlar olib borilgan va lug‘at hamda qo‘llanmalar chop etilgan. O‘zbek tilida terminologiya masalalari M.E.Umarxo‘jayev, X.Dadaboyev, I.X.Sadikova, S.X.Nurmatova, O.Tursunova, P.P.Nishonov, O.S.Ahmedov, H.V.Mirzahmedova, S.Muhamedova, S.T.Mustafayevaning tadqiqotlarida o‘z aksini topgan⁶. Sohaviy terminlarning lingvistik tadqiqi bilan D.X.Kadimbekova⁷,

¹ O‘zbekiston Respublikasi Prezidentining 2020-yil 28-apreldagi «Raqamli iqtisodiyot va elektron hukumatni keng joriy etish chora-tadbirlari to‘g‘risida» qarori // <https://lex.uz/docs/-4800657>

² O‘zbekiston Respublikasi Prezidentining 2020-yil 5-oktabrdagi «Raqamli O‘zbekiston — 2030» strategiyasini tasdiqlash va uni samarali amalga oshirish chora-tadbirlari to‘g‘risida» // <https://lex.uz/ru/docs/-5030957>

³ O‘zbekiston Respublikasi Prezidentining 2021 yil 19 maydagi «O‘zbekiston Respublikasida xorijiy tillarni o‘rganishni ommalashtirish faoliyatini sifat jihatidan yangi bosqichga olib chiqish chora-tadbirlari to‘g‘risida» <https://lex.uz/docs/-5426736>

⁴ O‘zbekiston Respublikasi Innovatsion rivojlanish vazirligi huzuridagi Ilmiy-texnik axborot markazi - O‘zbekiston Respublikasida ilm-fan va innovatsiyalar sohasining qonunchilik va meyoriy-huquqiy asoslari bo‘yicha dayjest – T: 2020. – B.14

⁵ Горностаев Г.Н., Забинкова Н.Н., Каден Н.Н. Латинские названия животных и растений. – М.: Изд-во МГУ, 1974. – С.146; Felber H. International standardization of terminology: theoretical and methodological aspects. – Paris: Vienna, 1977. – P. 264; Даниленко В. П. Русская терминология. Опыт лингвистического описания. – М.: Наука, 1977. – С.200; Лотте Д.С. Очередные задачи технической терминологии // История отечественного терминоведения: классики терминоведения. Т. 1. – М., 1994; Виноградов В.В. Лексикология и лексикография: Избр. тр. – М., 1977 – С.310; Фролова О.П. Китайская терминология как лексическая подсистема / Сб. тезисов II конф. по китайскому языкознанию. – М., 1984. – С.77-79; Шевченко Г. И. Дверь в латинский язык и биологическую терминологию. – Минск, 1999. – С.115; Герд А.С. Основы научнотехнической лексикографии: (как работать над терминологическим словарем). – Л., 1968; Гринев С.В. Введение в терминологию. 2-е изд., перераб. и доп. – М., 1995;

⁶ Mustafayeva S. - Xitoycha – o‘zbekcha tilshunoslik terminlari. Toshkent: Fan va texnologiyalar Markazi, 2014. B.111; Muhamedova S va mualliflar jamoasi. Bank-moliya terminlarining o‘zbek tilidagi izohli lug‘ati. Toshkent:

N.A.Martinova⁸, A.B.Adigeneyeva⁹, D.Kamchibekova, O.S.Ahmedov, P.P.Nishonov¹⁰, X.Paluanova shug‘ullanishgan. Ta’kidlash joizki, jahon va yurtimiz tilshunos olimlari terminologiya va sohaviy terminologiyada leksemalarning lingvistik tahlillarda, lug‘atlar tuzishda ko‘plab yutuqlarga erishganlari rost, shuningdek, AKT terminologiyasi bo‘yicha ilmiy izlanishlar borgan jahon va yurtimiz olimlari ko‘payotgan bo‘lsada¹¹, lekin ushbu sohaning tarkibiga kiruvchi mobil ilovalar terminlari bilan qiziqqan tilshunos olimlarimiz barmoq bilan sanaydigan holatga kelib qolgan. Xususan, Ye.V.Tixonova¹², D.X.Kadirbekova¹³, D.M.Amirova, A.Y.Atadjanova, D.A.Ibragimova¹⁴ tilshunoslar olimlar tomonidan mobil ilova terminlari bo‘yicha qisman tadqiqot olib borilgan va izohli lug‘atlar tuzilgan.

Yuqoridagi tadqiqotlarda turli tillardagi AKT terminlari tahlil va tadqiq qilingan bo‘lsa ham, biroq ularning zamonaviy qatlami, xususan, bugungi kun uchun muhim bo‘lgan mobil ilovalarda uchraydigan terminlarning boshqa jihatlari o‘rganilmagan, ya’ni, aynan shu sohaga oid terminlar bo‘yicha lingvistik, strukturaviy, tarjima qilish usullari va leksikografik tamoyillari ingliz – rus – o‘zbek tillari misolida qiyosiy – tipologik jihatdan tadqiqot obyekti bo‘lmagan.

Dissertatsiya tadqiqotining dissertatsiya bajarilgan oliy ta’lim muassasasining ilmiy-tadqiqot ishlari rejalari bilan bog‘liqligi.

Tadqiqot Navoiy davlat pedagogika institutining “Qiyosiy tilshunoslik, lingvistik tarjimashunoslik va leksikologiya masalalari” mavzusidagi ilmiy-tadqiqot rejasi doirasida bajarilgan.

Tadqiqotning maqsadi ingliz, rus va o‘zbek tillaridagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining lingvistik xususiyatlarini aniqlash va tavsiflashdan iborat.

Tadqiqotning vazifalari quyidagilardan iborat:

android operatsion tizimi mobil ilovalari (AOTMI) terminlarining mavzuvii guruhlarini tasniflash;

Innovatsiya-Ziyo, 2020. B.157; M.Umarxo‘jayev, Q.Nazarov – Nemischa –ruscha – o‘zbekcha frazeologik lug‘at. Toshkent: O‘qituvchi, 1994. B.160

⁷ Kadirbekova D.X. Ingliz va o‘zbek tillarida axborot texnologiyalari terminologiyasining lingvistik xususiyatlari. Monografiya. – Toshkent: Fan va texnologiya, 2016. – B.128

⁸ Мартынова Н.А. Роль терминологической лексики в формировании коммуникативной компетенции специалиста // Общество и человек. – 2014, №1 (7). –С. 67-72.

⁹ Адигенеева А.Б., Камчибекова Д. К вопросу о преподавании профессиональных терминов в русском языке. Электрон пецыпс: https://revolution.allbest.ru/pedagogics/00554873_0.html. Murojaat sanasi: 30.08.2021.

¹⁰ Nishonov P. Fransuz va o‘zbek tillari yuridik terminologiyasining qiyosiy-tipologik tadqiqi: Filol. fanlari nomz. ... diss. avtoref. – T.: 2009. – B.26

¹¹ Беликова И.А. - Особенности образования терминов неологизмов в подъязыке компьютерной техники: Дис. канд. филол. наук. – Омск, 2004; Орел Т.И. Структура и номинативно-образовательные характеристики английской терминосистемы телекоммуникации. Дис. канд. филол. наук. – М., 2005; Ходакова А.Г - Системная семантика термина на материале англоязычных терминов Интернета. Дис. канд. ... филол. наук. – Белгород, 2010; Мусаходжаев С.И - Лингвостатистический анализ узбекского научно-технического текста и терминологии подъязыка электротехники и электроники. Филол. фан. ... номзод. дисс. иши. – Т., 1986;

¹² Тихонова Е.В. Формирование английской терминологии мобильных средств связи и её лингвистические особенности. Дис. канд. ... филол. наук. – Омск, 2003.

¹³ Kadirbekova. D.X - Inglizcha-o‘zbekcha axborot-kommunikatsiya texnologiyalari terminologiyasi va uning leksikografik xususiyatlari – avtoref.diss ... f.f.n – Toshkent, 2017

¹⁴ Amirov D.M, Atadjanov A.Y, Atadjanov D.Y, Ibragimov D.A. va boshqa - Axborot-kommunikatsiya texnologiyalari izohli lug‘ati – Toshkent: BMTTDning O‘zbekistondagi vakolatxonasi, 2010. – B.573

ingliz tilidagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining leksik-semantik xususiyatlari, omonimlik, sinonimik va antonimik munosabatlarini ochib berish;

ingliz tilidagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining genetik xususiyatlarini aniqlash va struktur jihatdan tahlil qilish;

kalka asosida o'zlashgan va sof rus tilidagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining shakliy-struktur tavsiflarini keltirish;

rus va o'zbek tilidagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarini tarjimada berish usullarini aniqlash, modellarini yaratish va ekvivalentlik xususiyatlarini ko'rsatish;

rus va o'zbek tilidagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining orfoepik va orfografik jihatdan tahliliy ochib berish;

tahlil natijasida aniqlangan kamchiliklar yuzasidan izohli lug'atni takomillashtirishga xizmat qiluvchi takliflar berish;

izohli lug'atga kiritish uchun android operatsion tizimi mobil ilovalari (AOTMI) terminlar ro'yxatini shakllantirish;

o'zbek-rus-ingliz tilidagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarning leksikografik tamoyillarini takomillashtirish va bosh so'zi o'zbekcha bo'lgan uch tilli terminologik lug'atini yaratish.

Tadqiqotning obyekti sifatida *“Google chrome”, “Telegram”, “Yandex.taxi”, “Payme”* mobil ilovalarida berilgan inglizcha, ruscha va o'zbekcha terminlar tanlangan.

Tadqiqotning predmetini ingliz, rus va o'zbek tillaridagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining shakllanishi, tuzilishi, leksik-semantik va leksikografik xususiyatlari hamda tarjima qilish usullari tashkil etadi.

Tadqiqotning usullari. Dissertatsiya mavzusini yoritishda tavsifiy, imloviy, qiyosiy-tipologik, komponent tahlil, terminlarning lisoniy tizimdagi o'rnini aniqlashda sistem tahlillardan va lingvostatistik usullardan foydalanildi.

Tadqiqotning ilmiy yangiligi quyidagilardan iborat:

ingliz, rus va o'zbek tillaridagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining semantik guruhlari aniqlangan va guruh tarkibidagi terminlarning leksik-semantik xususiyatlari dalillangan;

ingliz tilidagi mobil ilovalarda qo'llanilgan polufunksional terminlarning ma'nolari orasidagi aloqa leksemalarning yangi semantik ottenkalarining paydo bo'lishi natijasida omonimlik xususiyati shakllanganligi aniqlangan;

ingliz, rus va o'zbek tillaridagi android operatsion tizimi mobil ilovalari (AOTMI) terminlari paradigmatic strukturasi xususiyatlari ochib berilgan va har uch tildagi terminlarning morfem va semantik derivatsion xususiyatlari asoslangan;

ingliz, rus va o'zbek tillaridagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarning sinonimik va antonimik munosabatlari aniqlangan hamda tillararo integral va differensial semalari izohlangan.

Tadqiqotning amaliy natijalari quyidagilardan iborat:

ingliz va rus tillari android operatsion tizimi mobil ilovalari (AOTMI) terminologiyasi asosida o'zbek tilida ayni soha terminlarini uyg'unlashtirish hamda uch tilli terminlar lug'atini tuzishning uslubiy yondashuvi takomillashtirilgan, shu bilan bir qatorda, leksikografik usullardan foydalangan holda tadqiq qilingan barcha android operatsion tizimi mobil ilovalari (AOTMI) o'zbek tilidagi terminlari yagona qolip asosida "etimolog.uz" saytida birlashtirilgan.

yangi andozalarga mos tarjima lug'atlari nuqtai nazaridan mobil ilova terminlari uchun lug'at mikrostrukturasini yaratish tamoyillari ishlab chiqilgan;

android operatsion tizimi mobil ilovalari (AOTMI) terminlarning veb-sayt ko'rinishidagi o'zbekcha-ruscha-inglizcha tarjima lug'ati yaratilgan;

android operatsion tizimi mobil ilovalari (AOTMI) terminlarining derivatsion xususiyatlarini rivojlantirish, qiyosiy terminshunoslik hamda terminografiya tamoyillarini takomillashtirish bo'yicha bir qator amaliy taklif va tavsiyalar ishlab chiqilgan;

Tadqiqot natijalarining ishonchliligi. Tadqiqot natijalarining ishonchliligi respublika va xalqaro miqyosdagi ilmiy-uslubiy va ilmiy-amaliy konferensiya materiallari to'plamlari, OAK ro'yxatidagi maxsus jurnallar hamda xorijiy ilmiy jurnallarda chop etilgan maqolalar, xulosalar, taklif hamda tavsiyalarning amaliyotda joriy etilgani, olingan natijalarning vakolatli tashkilotlar tomonidan tasdiqlanganligi bilan izohlanadi.

Tadqiqot natijalarining ilmiy va amaliy ahamiyati. Tadqiqot natijalarning ilmiy ahamiyati olingan natijalarning android operatsion tizimi mobil ilovalari (AOTMI) terminlarining tildagi o'rnini ko'rsatib bergani, qiyosiy terminologiya, leksikologiya, tarjimashunoslik sohalarining tadqiqot ko'lamini boyitgani hamda boshqa terminologik tizimlarning lingvistik xususiyatlarini yoritishda manba bo'lib xizmat qilgani bilan belgilanadi.

Tadqiqot natijalarining amaliy ahamiyati olingan xulosalarning mobil ilovalar yaratilish sohasida terminshunoslik va lug'atshunoslik hamda xalqaro ma'lumot almashinuvi tizimi samaradorligini oshirishga xizmat qilgani, oliy o'quv yurtlarida lug'atlar, darsliklar, o'quv qo'llanmalar yaratish, turli metodik tavsiyanomalar tuzish hamda AKT sohasi uchun mutaxassislar tayyorlashda ahamiyatliligi bilan izohlanadi.

Tadqiqot natijalarining joriy qilinishi. Android operatsion tizimi mobil ilovalari terminlarining o'zbek, rus, ingliz tillarida berilishi bo'yicha olingan ilmiy natijalar va amaliy takliflar asosida:

Android operatsion tizimi mobil ilovalari terminlarining o'zbek tilida berilishi va leksikografik talqini bobidagi mikrostrukturasida keltirilgan terminlarning leksikografik tavsifi, shuningdek, mobil ilova terminlarining ingliz, rus va o'zbek tillarida berilishining tahlili jarayonida mobil ilovalardagi har bir oynada foydalanilgan terminlarni mavzuviy tarzda ajratib olish ya'ni kirish, bosh(asosiy), kaskad menyusi oynasi, ichki (sozlamalar) menyusidagi terminlarni ajratish bo'yicha xulosalardan Alisher Navoiy nomidagi Toshkent davlat o'zbek tili va

adabiyoti universiteti tomonidan 2021-2023-yillarga mo'ljallangan № IL – 402104474 “bolalaradabiyoti.uz” elektron platforma va uning mobil ilovasini yaratish” bo'yicha innovatsion loyihada foydalanilgan. (Alisher Navoiy nomidagi Toshkent davlat o'zbek tili va adabiyoti universitetining 2022-yil 21-dekabrda 01/4-3526 – sonli ma'lumotnomasi). Natijada, “bolalaradabiyoti.uz” elektron platforma va uning mobil ilovasida qo'llanilishi kerak bo'lgan terminlarni yagona qolipga keltirilishiga erishilgan.

Android operatsion tizimi mobil ilovalari terminlarining ingliz tilida berilishi bobidagi mobil ilovalar va elektron platformalar ma'lum bir dasturlash tillari (“java”, “python”, “php”) orqali yoziladigan bo'lib, ulardagi terminlar asosan ingliz tilida yozilgan hisoblanishi, mobil ilova va elektron platformalarning asosiy tili ingliz tili bo'lib, undagi terminlar, rus va o'zbek tillariga tarjima qilinib, foydalanuvchilarga yetkazilishi, har bir mobil ilova yoki elektron platformalar “kirish (asosiy/ilovani atovchi), bosh (foydalanuvchi interfeysidagi)”, “ichki va kaskad (dasturiy vosita) menyular”dan iborat ekanligi bo'yicha xulosalaridan Alisher Navoiy nomidagi Toshkent davlat o'zbek tili va adabiyoti universiteti tomonidan 2020-2022 yillarga mo'ljallangan № PZ-2020042022 “Turkiy tillarning lingvodidaktik elektron platformasi”ni yaratish bo'yicha amaliy loyihada foydalanilgan. Natijada, “Turkiy tillarning lingvodidaktik elektron platformasining o'zbek tilidagi talqinining kaskad menyusidagi terminlarini yaratishda asosiy qo'llanmalardan biri bo'lishiga erishilgan. (Alisher Navoiy nomidagi Toshkent davlat o'zbek tili va adabiyoti universitetining 2022-yil 27-dekabrda 01/4-3655 – sonli ma'lumotnomasi).

Tadqiqot ishidagi muammolar va uning yechimini yanada kengroq yoyish hamda mobil ilovalardagi o'zbek tilida berilgan terminlarning kundalik sharoitda foydalanish bo'yicha fikr va tasviyalardan Navoiy viloyati teleradiokompaniyasining “Assalom, yangi kun”, “Til – millat ko'zgusi”, “Dolzarb mavzu” kabi ko'rsatuv va radioeshittirishlarida foydalanilgan. (O'zbekiston Milliy teleradiokompaniyasining 2022-yil 30-noyabrda 01-10/179 – ma'lumotnomasi). Natijada, ko'rsatuvlardagi eshittirishlar orqali **“Google chrome”, “Telegram”, “Yandex.taxi”, “Payme”** kabi mobil ilovalarda foydalanilgan terminlarning etimologiyasi, qo'llanilishi jihatdan ma'lumot berilganligi va mobil ilovalardagi aksariyat terminlar takroriy ekanligi hamda mobil ilovalardagi terminlarning o'zbek tilidagisidan foydalanish biroz qiyinchiliklar yuzaga keltirayotganligini yoshlar o'rtasida keng targ'ib qilish imkoniyati yaratilgan.

Tadqiqot natijalarining aprobatyasi. Dissertatsiya natijalari yuzasidan 6 ta respublika va xalqaro hamda 2 ta xorijiy ilmiy-amaliy konferensiyalarida ma'ruzalar qilingan.

Tadqiqot natijalarining e'lon qilinganligi. Dissertatsiyaning asosiy mazmuni yuzasidan 16 ta ilmiy maqola va tezis chop etilgan. O'zbekiston Oliy attestatsiyasi komissiyasi tomonidan doktorlik dissertatsiyalarining asosiy natijalarini chop etish tavsiya etilgan ilmiy nashrlarda 8 ta, jumladan, 3 ta xorijiy jurnallarda ilmiy maqola nashr etilgan.

Dissertatsiyaning tuzilishi va hajmi. Dissertatsiya kirish, uch asosiy bob, umumiy xulosa, foydalanilgan adabiyotlar ro'yxati va ilovadan iborat. Dissertatsiyaning umumiy hajmi 169 sahifani tashkil etadi.

DISSERTATSIYANING ASOSIY MAZMUNI

Kirish qismida mavzuning dolzarbligi va zarurati asoslangan, uning O'zbekiston Respublikasi fan va texnologiyalarining ustuvor yo'nalishlariga bog'liqligi ko'rsatilgan, muammoning o'rganilganlik darajasi yoritilgan, ishning maqsad va vazifalari, tadqiqot obyekti va predmeti aniqlangan, tadqiqot usullari dissertatsiyaning ilmiy yangiligi va amaliy natijalari bayon qilingan, olingan natijalarning ishonchliligi, ilmiy va amaliy ahamiyati asoslab berilgan, tadqiqot natijalarining amaliyotga joriy etilganligi, e'lon qilinganligi, dissertatsiyaning tuzilishi va hajmi bo'yicha ma'lumotlar berilgan.

Dissertatsiyaning **“Ingliz tilidagi android operatsion tizimi mobil ilovalari (AOTMI) terminlarining semantik, genetik va struktur xususiyatlari”** deb nomlangan birinchi bobida termin va terminologiyaga doir xorijiy tilshunos olimlarning fikr-mulohazalar, mobil ilovalarda qo'llanilgan ingliz tilidagi mobil ilovalarning terminologiyasi masalalariga doir nazariy mulohazalar ilmiy-amaliy jihatdan o'rganilgan. Shuningdek, ushbu bobda android operatsion tizimi mobil ilovalari terminlarining mavzuviy guruhlarining tasnifi keltirilgan, ularning semantikasi, genetik xususiyatlari hamda terminlarning tuzilishi tahlil qilingan.

Terminologiya atamasi bu – tilshunoslikning ma'lum bir sohasiga oid maxsus so'zlar va ma'nolar guruhini o'rganuvchi bo'lim hisoblanib, bir soha yoki fan yuqori darajada taraqqiy etgandagina o'sha tilda maxsus terminlar vujudga keladi.

Mavjud so'zlarning yangi ma'nolari paydo bo'lishi so'z boyligi o'sishining yana bir foydali manbasi hisoblanadi. Semantik kengaytmalar so'z boyligining sifat jihatdan o'sishini namoyon qilib beradi.

Hozirgi kunda ingliz tilida so'zlarning ma'nosini belgilash yoki ko'p ma'noli so'zlarni farqlash uchun bugungi kungacha tayanch manba vazifasini o'taydigan ko'plab inglizcha izohli lug'atlar mavjud. Xususan, 1828-yildan beri nashr qilinib kelayotgan “Merriam-webster” elektron lug'ati, “Oxford ingliz izohli lug'ati”, “Collins ingliz izohli lug'ati”, “Cambridge ingliz izohli lug'ati”, “Macmillan” nashriyotida chiqadigan ingliz lug'atlari eng ishonchli manbalar sirasiga kiradi.

Palmer o'zining “Semantika – yangi tavsif” kitobida semantika atamasini tilshunoslikda qanday qo'llanilishi bo'yicha ma'lumot bergan. Unda fonetika va grammatikaga o'xshab semantika ham tilshunoslikning komponenti sifatida keltirgan. Bundan tashqari, deyarli barcha tilshunos olimlar semantikani tugash qismida, fonetikani boshqa hamda grammatikani o'rta qismida deb baholaydigan lingvistik modelni qabul qilishgan. Shu bilan bir qatorda ushbu kitobda tilni biri-biri bilan turli belgilar va ramzlar orqali aloqa qiladigan muloqot tizimi sifatida ham keltirilgan¹⁵.

So'zlarning genetik xususiyati deganda ularning kelib chiqishi, ya'ni etimologiyasi tushuniladi. **Etimologiya** 1) so'z va morfemalarning kelib chiqishini

¹⁵ Palmer F.R. - Semantika – yangi qo'llanma (a new outline). 1971. – B. 2-6.

o'rganuvchi tilshunoslik bo'limi; 2) so'zning kelib chiqishini aniqlashga qaratilgan tadqiqot usullari majmui; 3) so'zning kelib chiqishi. XX asr tilshunosligida "Etimologiya" termini "grammatika" ma'nosida ham qo'llangan.¹⁶

Bugungi kunda barcha tillar izchil rivojlanib bormoqda hamda lug'at boyligi ko'paymoqda. Shu qatorda ingliz tilini misol qilib olsak, garchi foydalanilayotgan ko'p so'zlar anchadan beri tilimizning ma'lum bir qismiga aylanib qolgan bo'lishiga qaramasdan, yangi so'zlar bu tilga doimiy qo'shilib kelmoqda.

Ingliz tilida tilning tuzilishini o'rganishning turli xil usullari mavjud. Masalan: so'zlarning qismlari orqali, so'zlarning ma'nosi orqali, kichkina ma'noli birlikdan so'zlarning shakllanishi orqali, so'zlarning tovushlari orqali, so'zlarning tuzilishi orqali, so'zlarning etimologiyasi orqali, leksik-semantikasi orqali, so'zlarning qo'llanilishi orqali, so'zlarning leksik xususiyatlari orqali.

Tadqiqot jarayonida "Google chrome", "Payme", "Telegram", "Yandex.taxi" mobil ilovalarda qo'llanilgan terminlar mavzuviy guruhlariga ajradildi: *"kirish qismi menyusidagi"*, *"bosh menyu (foydalanuvchi interfeysidagi)dagi"*, *"kaskad menyudagi"*, *"ichki sozlamalar menyusidagi"* terminlar.

Yuqorida nomlari keltirilgan mobil ilovalar terminlarning semantikasi, tuzilishi va genetik xususiyatlari tahlil qiladigan bo'lsak:

"Telegram" - ushbu atamadagi *"tel"* qo'shimchasi, so'z hosil qiluvchi element sifatida olingan bo'lib, xuddi *"television"* so'ziga o'xshab, grek tilidan olingan olingan bo'lib, *"uzoq masofa"* ma'nosini beradi, genetik jihatdan grek tilidagi *"teleos"* so'zidan olingan. *"Gram"* qo'shimchasi esa ot yasovchi qo'shimcha hisoblanib, grek tilidagi *"gramma"* ya'ni *"harf"*, *"yozma harf"* anglatuvchi so'zdan olingan bo'lib, ikkalasi qo'shilganda *"telegram"* so'zi yasalgan. Ushbu atama 1850-yillar, aniqrog'i, Albaniyadagi *"Tungi jurnal"*, 6-aprel, 1852-yildagi sonida dastlab foydalanilgan.¹⁷

"Telegram" mobil ilova sifatida 2013-yilda kirib keladi. Uning asoschilari rossiyalik dasturchi Pavel Durov va akasi Nikolay Durovlardir. Bugungi kunga kelib "Telegram" mobil ilovasi IOS, Android, Windows Phone, Win, Mac OS va Linux kabi operatsion tizimlarda ishlamoqda. Bundan ko'rinib turibdiki ushbu atama atoliq ot tarzida tilshunoslikka kirib keldi degan xulosaga kelsak mubolag'a bo'lmaydi.

"Google chrome" – ikki komponentli atama bo'lib, **"google"** – atamasiga ta'rif beriladigan bo'lsa, ushbu atama 1999-yildan boshlab foydalanildi. "Google.com" domeni 1997-yilda ro'yxatdan o'tgan bo'lib, mashhur kompaniya ham aynan shu nomdan olingan. Kompaniyaning ma'lumot berishicha, bu *"google"* nomi *"googol"* atamasi bilan chalkashlik hosil qilgan, maqsadi millionlab ma'lumotlarni bitta to'rga jamlaydigan qidiruv tizimini yaratish bo'lgan Lari Peyj va Sergey Blinning g'oyalariga katta ta'sir ko'rsatgan. "Merriam-webster" ingliz izohli lug'atida *"Googol"* – uzun ya'ni cheksiz son sifatida tushuniladi ya'ni 10100 tarzida. **"Chrome"** - atamasi fransuz tilidan olingan bo'lib, ushbu nom Fourkroy va Haviy tomonidan yangi element sifatida olib

¹⁶ <https://uz.wikipedia.org/wiki/Etimologiya>

¹⁷ https://www.etymonline.com/word/telegram#etymonline_v_7690

kirilgan, lekin dastlab ushbu atama grek tilidan boshqacha atalgan “*khroma*” yoki “*chromium*” tarzida keyinchalik metall tarzida fransuz kimyogari 1798-yilda Luiz Nikolas Vakvilini “*chrome*” tarzida nom beradi. “Google shrome” mobil ilovasining belgisi ham xrom elementiga o‘xshab ishlab chiqilgan.

“**Yandex.taxi**” – “yandex” atamasi ham “google chrome” ga o‘xshab, Rossiya dasturchilari tomonidan ishlab chiqilgan qidiruv tizimi hisoblanadi. Bu tizim tarmoqlangan bo‘lib, tur xil ma’lumotlarni izlashda yordam beradi, xususan, taksi haydovchilari haqidagilarni ham. “Yandex” atamasining birinchi kelib chiqishi, Arkadiy Voloz va Borovskiye ga borib taqaladi. Ular “Arkadiya” deb nomlangan kichik kompaniyada qidiruv texnologiyalari ustida ishlashardi. 1993-yilda ularning bu tizimi rivojlangandan keyin nomni o‘zgartirishga kelishib olishadi. Ingliz tilidagi “*search*” va “*index*” (ikkala so‘z ham qidirmoq ma’nosini beradi) atamalari ular uchun muqobil shakl hisoblanadi va ikkalasi orasidan “*index*” atamasi tanlanadi. “Yet Another Indexer” so‘zining qisqartmasi “Yandex”ni o‘ylab topishadi. Shundan so‘ng, Voloz dastur logotipidagi so‘zning birinchi ikkita inglizcha harflarini ruscha harflar bilan Я (“Ya” – ingliz tilida “I” – “Men” ma’nosini anglatadi) ga o‘zgartiradi, shu bilan ushbu atama ikki tilliga aylanadi. “Yandex” kompaniya sifatida 2000-yilda faoliyatini boshlaydi.

“**Taxi**” – atamasi “taximeter cab” so‘zining qisqartmasi bo‘lib, 1907-yilning mart oyida Londonda foydalanilgan.

“**Payme**”– mobil ilovasi 2013-yilda o‘zbek dasturchilari tomonidan yaratilgan bo‘lib, barcha turdagi to‘lov va o‘tkazmalar uchun foydalaniladigan xizmat turi hisoblanadi. “Pay” – atamasi 1200-yilda eski fransuz tili “*paier*” so‘zidan olingan. “Me”- olmosh sanalib, eski ingliz tilidan olingan. Ingliz tilida “I” - kishilik olmoshining to‘ldiruvchi vazifasini bajaruvchi turi sifatida qo‘llaniladi.

Ingliz tili leksikoni sodda va murakkab birikmalarni tahlil qilish orqali o‘rganildi. Mobil ilovalarda qo‘llanilgan terminlarning 836 ta atamadan 642 tasi birikmali terminlar bo‘lib, umumiy terminlar sonining 76 foizini tashkil qilishi aniqlandi. Bundan tashqari, 121 ta termin barcha mobil ilovalarda bir shaklda qo‘llanilgan, sababi bunday terminlar bir xil funksiyalarni bajaradi.

Tadqiqot ishi davomida “Telegram” mobil ilovasining 246 ta, “Google chrome” mobil ilovasining 295 ta, “Yandex.taxi” mobil ilovasining 125 ta hamda “Payme” mobil ilovasining 170 ta atamalari ilovaga kiritilgan bo‘lsa, ular orasidan asosiy foydalanuvchi uchun tanish bo‘lgan 26 ta atamalar semantik jihatdan tahlil qilindi.

Shunga ko‘ra, jami 836 ta atamadan 124 ta atamalar omonimlik xususiyatiga ega, 28 ta atama ko‘p ma’nodlilik xususiyatiga ega, deyarli barcha atamalarning esa sinonimlik xususiyati mavjud.

Mobil ilovalardagi terminlar orasida bir komponentli leksemalar ham uchraydi. Ular tarkibidagi yasovchi va shakl yasovchi qo‘shimchalarini o‘rganish jarayonida shuni aytish mumkinki, ingliz tilida leksemalarga yasovchi qo‘shimchalar qo‘shish orqali boshqa tillardan ularni o‘zlashtirish o‘ta kuchli takomillashgan. Ulardagi affiksatsiya hodisasi boshqa tillarga ham o‘z ta’sirini ko‘rsatmay qolmagan.

Dissertatsiyaning “**Android operatsion tizimi mobil ilovalari (AOTMI) terminlarining rus tilida berilishi**” deb nomlangan bobida rus tiliga aynan o‘zlashgan, kalka asosida o‘zlashgan va sof ruscha mobil ilovalarda foydalanilgan terminlarning imlosi, talaffuzi hamda tuzilishi o‘rganilgan.

Ma’lumki, rus tilida boshqa tillardan so‘zlarning o‘zlashishi “*заимствование*” deb ataladi. Zamonaviy rus tili leksikasi ikkita katta guruhlariga ajraladi: dastlabki ya’ni sof rus leksikasi va boshqa tillardan olingan ya’ni o‘zlashgan ruscha so‘zlardir. Dastlabki rus leksikasi – bu hind-yevropa tillaridan, umumslavyan tillaridan, sharqiy slavyan hamda rus tilida foydalaniladigan leksikalar tushuniladi. Aynan yuqoridagilardan tarkib topgan leksikalar rus tilining milliy asosini tashkil qiladi. Boshqa tillardan kirib kelgan so‘zlar esa olingan so‘zlar deb ataladi. Rus tilida boshqa so‘zlarning leksikonlarning o‘zlashishi butun davr mobaynida amalga oshib kelgan bo‘lib, rivojlanish jarayonida rus tili turkiy tillar bilan, ayniqsa Usmonli imperiyasi bilan, niderlandlar bilan aloqa vositasida fransuz, nemis va ingliz tillari bilan boyib keldi.

Mashhur olim I.Ogiyenkonning ta’kidlashicha, rus tili tarixining birinchi qismi qadimgi davrlarga borib turk, grek va lotin tillariga borib taqalishini o‘rgangan. Keyingi, rus tili tarixining ikkinchi qism esa, zamonaviy davrga ya’ni nemis, fransuz, ingliz, polyak va boshqa tillarga taqalishi bo‘yicha ma’lumot berib o‘tgan¹⁸.

Olim S.Sireskinaning olingan so‘zlar bo‘yicha maqolasiga ko‘ra, so‘zlarning rus tiliga o‘zlashishi 3 xil usulda amalga oshishi ta’kidlangan: 1) aralash; 2) transkripsiya; 3) transliteratsiya.

Yuqorida ko‘rib chiqqanimizdek, atamalarning boshqa tillardan turli xil usullarda tilga o‘zlashishi haqida bir qancha ma’lumotlarga ega bo‘ldik. Bundan tashqari ingliz tilidan rus tiliga kirib kelgan so‘zlarning imlosi va talaffuziga ham e’tibor qaratishimiz kerak, sababi ingliz tilidan aynan o‘zlashgan so‘zlarning rus tilida talaffuzi bir xil qolishi, lekin ularning matnda yozilishi turli shaklda kelishi mumkin.

Y.K.Grot o‘zining rus imlosidagi asosiy muammolarida olingan so‘zlarning orfografiyasiga oid ko‘plab savollarni ochiq qoldirishga majbur bo‘ladi. Grot uchun imlodagi hayron qolarli jihat bu chetdan kirib kelgan so‘zlardagi undoshlarning ikkilanishi edi va bu undoshlarning rus tilida hech qanday ekvivalenti mavjud emas. Jumladan, [jo], [ja], [je] birikmalari rus imlosida «э» tarzida qo‘llaniladi.

Keyingi XX asrning 2-yarmida olingan so‘zlarning imlosini o‘rganish yangi bosqichga kirdi. Olingan so‘zlar imlosi bo‘yicha tez-tez beriladigan savollar turli qarashlarga ega bo‘lib, uning yechimi aniq beriladigan matnlardagi imlo qoidalarida beriladi. Masalan, L.Maksimovning “э” va “е” harflarining olingan so‘zlardagi unilardan so‘ng ishlatilishi bo‘yicha maqolasi bunga yorqin misol bo‘ladi. Shu bilan bir qatorda, N.Yeskovoy va Y.Shubovanning “э” harfining undoshlardan keyin ishlatilishi, M.Glovinskiy va L.Kalakulskoyning ikkilangan

¹⁸ Огиенко И.И., Иноземные элементы в русском языке: история проникновения заимствованных слов в русский язык - 2010. – С.136.

undoshlarning ishlatilishi kabi maqolalar yuqoridagi berilgan muammoning yechimi bo‘la oladi.¹⁹

Olingan so‘z va kalka asosida o‘zlashgan so‘zlarning imlosi bo‘yicha o‘rganilgan barcha maqolalar va ilmiy ishlarda yagona muammo ilgari surilgan. Ayrim unlilarning rus tili imlo qoidalarida hech qanday almashtiradigan tovushlari mavjud emasligi, olingan so‘zlardagi imlo va talaffuz bir- biridan farq qilishi keltirilgan.

Axborot texnologiyalarining rivojlanishi, dasturiy mahsulotlarning yaratilishi oqibatida boshqa tillarda bo‘lgani kabi rus tiliga yangi so‘zlar kirib kela boshladi. Xususan, *google* – atamasi ham xuddi shunday so‘zlar sirasiga kiradi. Eng qizig‘i, bu atamaning imlosi va talaffuzi haqida so‘z boradigan bo‘lsa, ingliz tilida talaffuz va imlo turlicha bo‘ladi. Ingliz tilida so‘zlarning transkripsiyasi bu ularning imlosini ifodalamaydi balki to‘g‘ri talaffuz qilish uchun bir vosita hisoblanadi. “Cambridge dictionary” elektron izohli lug‘atida “Google” [gu:gl] tarzida o‘qilishi berilgan, garchi ushbu so‘z 6 harfdan iborat bo‘lsa-da, lekin talaffuzda 4 ta tovush orqali ifodalanadi, shunda ikkita bir xil harf bitta cho‘ziq tovushni ifodalab kelmoqda. Rus imlosida ushbu atama «гугл» tarzida izohli lug‘atlarga kiritilgan.

“**Telegram**” atamasini o‘zini oladigan bo‘lsak, garchi ushbu ilova rus dasturchisi tomonidan ishlab chiqilgan bo‘lsa-da, ushbu atamaning kelib chiqishi sof rus tilidan olinmagan, shu sababli ham bu so‘zni aynan olingan so‘zlar qatoriga qo‘shishimiz mumkin. Imlo va talaffuzi haqida so‘z boradigan bo‘lsa, keltirilgan so‘z 8 ta harfdan iborat va talaffuzda ham xuddi shuncha tovush mavjud. 3 ta unli va 5 ta undosh tovush ishtirok etgan. Unli tovushlar asl holicha emas, balki ruscha yuqorida keltirilganidek talaffuzi ikki tovushni berayotgan “e” harfi [э] tarzida talaffuz qilinadi.

“**Яндекс такси**” (“yandex taxi”) – ushbu atamaning birinchi “яндекс” so‘zida 6 ta harf va 7 ta tovush mavjud, so‘z boshi va oxirida “я” bitta harf bo‘lsa-da ikkita tovushni anglatadi. “*Такси*” so‘zida esa imloda qancha harf bo‘lsa, shuncha tovush mavjud va hech qanday tovush o‘zgarishi, tushishi ro‘y bermaydi.

“**Payme**” atamasining imlo va talaffuziga to‘xtaladigan bo‘lsak, mazkur atama qo‘shma so‘z bo‘lib, *pay* va *me* atamalaridan olingan. “Cambridge dictionary” onlayn lug‘atida [peimi:] tarzida talaffuz qilinadi. Rus imlosida ham talaffuzida ham xuddi ingliz tilidagiga o‘xshib bir xil bo‘ladi.

Mazkur tadqiqot ishining rus tiliga kalka asosida o‘zlashgan android operatsion tizimi mobil ilovalari (AOTMI) terminlarining strukturasi va imlosi bo‘limidagi kalka jarayoni hamda jarayon haqidagi olimlar fikri haqida batafsil ma’lumotlarga ega bo‘ldik. Tadqiqot ishida o‘rganilayotgan mavzu mobil ilova terminlaridir. “Yandex.taxi”, “Payme”, “Google chrome”, “Telegram” mobil ilovalarida uchraydigan kalkalangan terminlar tahlili, ya’ni ularning tuzilishi va imlosi ko‘rib chiqilishi muhim jihat hisoblanadi.

Terminlarning strukturasi bilan bog‘liq tushunchani T.Volinetsning o‘quv qo‘llanmasida uchratishimiz mumkin. Xususan, morfologik usulda atamalarning

¹⁹ Нечаева И.В - Актуальные проблемы орфографии иноязычных заимствований. –Издательский центр «Азбуковник», Москва. – С.21-23

yasalishinig o'zi bir necha turlarga bo'lingan va shu orqali atamalarning tuzilishi kelib chiqadi. Ular:

1. Suffiksli;
2. Prefiksli;
3. Postfiksli;
4. Kombinatsion;
5. Murakkab;
6. Univerbatsiya²⁰.

Tilshunos olimlar bir to'xtamga kelib olgandan so'ng kalka jarayoni turlarga ajratila boshlandi. E.Forian o'zining maqolasida Y.Obarani qarashlarini asos qilgan, kalkalashning asosiy tur va guruhlariga ajratgan holda tahlil qildi:

- 1) leksik kalka; 2) frazeologik kalka; 3) grammatik kalka.

“**Telegram**” mobil ilovasidagi kalka asosida tarjima qilingan foydalanuvchi interfeysidagi terminlardan biri bu “**Защищенный контент**” – yarim kalka asosida tarjima qilingan ikki komponentli birikma hisoblanadi. Bu holatda kontent chetdan o'zlashgan atama “**защищенный**” atamasining asosi esa sof ruscha sanaladi.

“**Добавить аккаунт**” – “**add account**” yarim kalkali termin bo'lib, ikki komponentli birikma hisoblanadi va bir atama ikkinchi atamaga tobelanib kelish xususiyatini saqlab qolgan va ular ajratib yoziladigan birikmalardir.

“**Telegram**” mobil ilovasining kaskad menyusida uchraydigan birikma terminlar orasida “**new group**” – “**создать группу**”, “**new channel**” – “**создать канал**”, “**people nearby**” – “**люди рядом**” kabi birikmalar ham ikki komponentli birikma hisoblanadi. Bular orasida ko'p komponentli birikma ham mavjud, masalan, “**new secret chat**” – “**создать секретный чат**” uch komponentli birikma bo'lib, frazeologik kalka turiga mansubligining guvohi bo'lishimiz mumkin.

Sof ruscha so'zlar quyidagi bosqichlarni bosib o'tgan - bular hind-yevropa, umumslavyan, sharqiy slavyan va asl ruscha so'zlardan tashkil topgan hamda aynan shu tillarga yaqin bo'lganligi sababli qarindosh sanaladi.

Terminlarning sof rus tilida ekanligini bilish uchun <https://lexicography.online> veb-saytida jamlangan G.A.Krilov, A.V.Semyonov, L.V.Uspenskiy, Maks Fasmer, N.M.Shanskiy tilshunoslarning onlayn rus tili etimologik lug'atidan, shu bilan birga, ushbu veb-saytdagi V.I.Dalya, T.F.Yefremov, S.I.Ojegov, D.N.Ushakov kabi tilshunos olimlarining rus tili onlayn izohli lug'atlaridan keng foydalanilgan.

Shuni qo'shimcha qilib o'tish kerakki, dasturlar ingliz tilida yaratilishi va aksariyat terminlar ingliz tilidan tarjima qilinganligi hamda sof ruscha kam uchraganligi sababli, terminlar mobil ilovalardagi menyuga qarab tahlil qilinmasdan, balki har bir menyulardagi sof ruscha terminlar tanlash asosida alohida o'rganildi.

“**Telegram**” mobil ilovasidagi dastlabki sof rus tilidagi termin bu – “**ночной**” bo'lib, aslida bu shaklda yasama so'z bo'lib, “**ночь**” – so'zning asosi hisoblanadi, -**ой** –sifat yasovchi qo'shimcha. So'z yasovchi qo'shimcha qo'shilishi natijasida

²⁰ Волюнец Т. – Современный русский язык // способы словообразования УСП // Минск, 2003, С.5-10

soʻz tarkibida tovush tushishi hodisasi roʻy bermoqda. Ushbu atama “ночь” shaklida turli maʼnolarga ega va agar ushbu soʻz kunning bir qismi, yaʼni “kun botganidan keyingi vaqt maʼnosida” kelsa, sof ruscha soʻz, lekin bu atama “bir kecha” maʼnosida kelsa, boshqa tildan oʻzlashgan hisoblanadi. Demak, ikki maʼnoda ham sof ruscha ham boshqa tildan oʻzlashgan boʻlishi mumkin ekan, shu holatdan gapda foydalanishda ehtiyotkorlik zarur.

“Секретный” – ushbu atama uch komponentli birikma tarkibida foydalanilgan boʻlsa-da, yakka holda tahlil qilinadiganda bu atamani sodda yasama soʻz, asosi fransuz tilidan oʻzlashgan soʻz hisoblansa-da, lekin ruscha qoʻshimcha qoʻshilishi natijasida sof rus tiliga oʻzlashganligini koʻrishimiz mumkin.

“Недавно” – bu atamaning asosi **“давно”** boʻlib, umumslavyan tiliga mansub. Old (prefiks) qoʻshimcha qoʻshilishi natijasida yasalgan sodda yasama soʻz. Lugʻatlarda ravish soʻz turkumiga oidligi hamda **“yaqinda”** maʼnolarida kelishi berilgan.

Rus tiliga aynan va kalka asosida oʻzlashtirilgan hamda sof ruscha leksemalarni talaffuz qilishda, soʻzlarni moslashtirish uchun tovushlarning nutqdagi kombinator oʻzgarishlari (akkomodatsiya, assimilyatsiya, epenteza va boshqalar) ham kuzatildi. Bunday hodisalar rus tilidatabiiy holat sanaladi. “o” harfini “a” tarzida, “z” harfini “e” tarzida talaffuz qilish hodisalari koʻplab uchraydi.

Mazkur bobning uchinchi paragrafi rus tilining ingliz tilidan ham koʻra boy til ekanligini koʻrsatib berdi, sababi mobil ilovalarda qoʻllanilgan inglizcha terminlar rus tiliga tarjima qilinganda, sof rus tilidagi leksemalardan dasturlarda muqobil tarzida qoʻllanilishi rus tili uchun katta yutuq sanaladi. Sof ruscha leksemalarni (исконное русское слова) izlab topish umuman qiyinchilik tugʻdirmadi. Rus tiliga oid eski manbalar ham elektron shaklga keltirilib, yakka platformaga joylashtirilgan. Aynan shu manbalardan foydalangan holda terminlarning sof ruscha yoki chetdan oʻzlashganligi tahlil qilindi. Eʼtibor tortadigan jihati shuki, tilshunos olimlar turli fikrlarni bildirib oʻtishgan, ayrimlari sof ruscha soʻzlarni 80-90 foiz deb maʼlumot bersa, ayrimlari 70 foiz tarzida maʼlumot chiqargani tadqiqot davomida biroz chalkashliklarga olib keldi.

Sof ruscha terminlarning struktura va qoʻllanilishi jihatdan tahlil qilinganda bir qator tilshunos olimlarning fikri orqali berilgan sof ruscha leksemalar va rus tiliga oʻzlashtirish boʻyicha berilgan qoidalarga asoslangan holda terminlar tanlandi hamda tahlil qilindi.

Dissertatsiyaning **“Android operatsion tizimi mobil ilovalari (AOTMI) terminlarining oʻzbek tilida berilishi va leksikografik talqini” deb nomlangan uchinchi bobida** oʻzbek tiliga aynan oʻzlashtirilgan AOTMI terminlarining imlosi va talaffuzi, tilimizga tarjima qilingan AOTMI terminlarining qoʻllanishi hamda ularning yaroqliligi(validligi) boʻyicha tahlillar olib borilgan, shuningdek, mobil ilovalar terminlarining leksikografik talqini masalalari ham tadqiq etilgan.

Ushbu bobda mobil ilovalarda uchraydigan oʻzlashgan va tarjima qilingan terminlarning qoʻllanilishi hamda validligi alohida oʻrganiladi. Bobdagi terminlar

o'zbek tilshunos olimlari R.Sayfullayeva, B.Mengliyev, G.Boqiyeva, M.Qurbonova, Z.Yunusova, M.Abuzalova tomonidan yozilgan "Hozirgi o'zbek adabiy tili" o'quv qo'llanmasi, B.Mengliyevning tomonidan yozilgan "Hozirgi o'zbek tili" darslik va til korpuslarini yaratish bo'yicha maqolalari, M.Umarxo'jayevning "Umumiy tilshunoslik" nomli o'quv qo'llanmalari, M.Umarxo'jayev rahbarligida Andijon davlat chet tillari institutida tashkil etilgan "ALTAIIM" lug'atshunoslik va tarjimashunoslik ilmiy markazida ham bugungi kunda maktab o'quvchilari uchun fanlar kesimida uchraydigan terminlarning tarjimalari berilgan ko'p tilli onlayn, mobil ilovalarga mos tushadigan lug'atlar yordamida tahlil qilindi.

Eng boshidan 4 ta tanlangan mobil ilovalar ("Payme", "Telegram", "Google chrome", "Yandex.taxi") terminlarining ingliz va rus tilida berilishi tahlil qilingan bo'lsa, ushbu bobda atamalarning o'zbek tilida ifodalanishi bo'yicha tahlil olib borilgan.

Boshqa tildan leksemalarning aynan olinishini o'zbek tilining leksik boyish manbalarining usullaridan biriga kirgazsak bo'ladi. Leksemalarni aynan olish usuli bu tojik, arab, rus va Yevropa tillaridan ko'proq o'zlashtirilgan. Bugungi kunga kelib o'zbek tiliga ingliz tilidan so'zlarning kirib kelishi ham to'g'ridan-to'g'ri bo'lmoqda. Ingliz tiliga taqlid, turli mahsulotlarga ingliz tilidagi nomlarning qo'yilishi tilning o'zbek tili bilan qo'shib ketishiga yoki ushbu tildan yangi leksemalarning kirib kelishiga asos bo'lmoqda. Xususan, tadqiqot ishida o'rganilayotgan mobil ilovalarning nomlanishi ("Yandex.taxi", "Telegram", "Payme", "Google chrome") bunga yaqqol misol bo'la oladi va bunday leksemalarning nomlarini biz o'zgartirolmaymiz hamda o'rniga boshqa muqobil topolmaymiz.

"Yandex.taxi", "Telegram", "Payme", "Google chrome" mobil ilovalarining o'zbek tilida berilgan terminlarini tahlil qilarkanmiz, dasturlarda aynan o'zlashgan terminlardan foydalanilganligiga duch kelishimiz mumkin. Eng avvalo, terminlarni tahlil qilishdan oldin so'zlarning etimologik kelib chiqishiga ham nazar tashlash kerak, chunki imlosi va talaffuzi bo'yicha tahlil qilinayotgan termin o'z qatlamga taalluqli qarindoshlar tillarda foydalanilishi ham mumkin. Shu o'rinda, foydali manba sifatida Sh.Rahmatullayevning 3 jildlik "O'zbek tilining etimologik lug'ati"ni tanlash mumkin.

Ushbu to'rtta mobil ilovada qo'llanilgan terminlarni birma-bir tahlil qiladigan bo'lsak, avvalo mobil ilova nomlari bo'yicha tahlil olib borsak maqsadga muvofiq. Yuqori boblarda "Yandex.taxi", "Telegram", "Payme", "Google chrome" terminlarining ingliz va rus tillarida genetik hamda semantik xususiyatlari o'rganildi, endi ularning o'zbek tilidagi talaffuzi va imlosi haqida qisqacha so'z yuritiladi.

"Payme" aslida bu atama so'z birikmasi shaklida buyruq ohangida tarjima qilinishi kerak, "menga to'la" tarzida, lekin dasturchilar bu atamani bitta butun nom bilan atab, to'lov xizmati amalga oshiriladigan mobil ilova yaratishdi, natijada tilimizga bu nom shundayligicha kirib keldi va ushbu birikmaga muqobil termin topilmadi. Ushbu atamaning imlosi haqida so'z borganda, u ingliz tilidagi so'zlar

qo'shilmasidan hosil bo'lgan va uning ingliz tilidagi talaffuz transkripsiyasi [pemi:] tarzida berilgan hamda ikkinchi bo'g'in "me" yozilgan qism cho'ziq holda o'qilishi kerak, lekin o'zbek tilida cho'ziqlik belgisi hamda diftong tovushlar bo'lmaganligi sababli [peymi] tarzida talaffuz qilinishi mumkin. O'zbek tilida ushbu atama imloda asl holicha qoladi sababi bu dasturga qo'yilgan nom hisoblanadi. Bu holatda o'zbek tilida uchraydigan "**pay**" so'zi bilan hech qanday omonimlik hosil qilmaydi hamda genetik xususiyati bir xil emas.

"**Google chrome**" – atamasi haqida tahlil qiladigan bo'lsak, "**google**" so'ziga duch kelinganiga uncha ko'p bo'lmaganligini, o'tgan asrning oxirlariga kelib ushbu so'z yirik kompaniya nomini olganligini hisobga oladigan bo'lsak, talaffuzimizda bu atamani [gugil] tarzida aytib ketaveramiz, lekin uni imloda yozilishi bo'yicha hozirgacha o'zbek tilining etimologik yoki imlo lug'atlarida keltirilmagan. Ushbu atama ham imloda "**google**" tarzida yozilsa-da, lekin talaffuzda bir nechta hodisalarga uchraydi. Xususan, ingliz tilidagi ikkita *o* harfi talaffuzda ingliz tilida cho'ziq [u:] tarzida talaffuz qilinadi va so'z oxiridagi *e* harfi esa talaffuz qoidalarini bo'yicha ingliz tilida talaffuz qilinmaydi, natijada [gu:g(ə)l] talaffuzi kelib chiqadi. Demak, o'zbek tilida asl holicha talaffuz qiladigan bo'lsa **google** tarzida talaffuz qilinadi, lekin bu holat ingliz tilining talaffuz me'yorlarga to'g'ri kelmaydigan jarayon. Shu sababli ham ushbu atamani [gugl] tarzida talaffuz qilish maqsadga muvofiq. Shunda ham "**gugl**" tarzida talaffuz qilinganda tovushlarning jarayonidagi o'zgarishi turlariga kiradigan "epenteza" hodisasiga uchraydi ya'ni so'z ichida tovush orttirilishi sodir bo'ladi va bitta [i] tovushi ortishi mumkin.

"**Chrome**" atamasi bo'yicha tahlil qilinganda, metal ma'nosida ushbu atamaning muqobili o'zbek tilida yaratilgan hamda inglizcha-o'zbekcha lug'atlarda "**xrom**" tarzida tarjimai berilgan. Shu sababli ham ikkala so'z bitta dastur nomini anglatib kelgani uchun o'zbek tili imlosida **google chrome** tarzida yozilaveradi, lekin [gugl krom] tarzida talaffuz qilinadi.

"**Yandex**" atamasining ma'nosi tushunarsiz tarzida berilgan, lekin baribir ushbu atama ham mashhur kompaniya nomiga qo'yilganligi sababli va muqobili bo'lmaganligi sababli aynan o'zlashgan so'zlar qatoriga qo'shsak ham bo'laveradi. Eng qiziq jihati shuki, ushbu nom rus dasturchilari tomonidan o'ylab topilganligi bois rus imlosida "**Яндекс**" tarzida yoziladi va ingliz tilida so'zlashuvchilar qoidaga mustasno tarzida xuddi shunday talaffuz qiladilar. Aslida, *a* [eɪ] harfi yopiq bo'g'inli so'zlarda [e] tarzida talaffuz qilinishi kerak, lekin ular [jandeks] tarzida talaffuz qilishga o'rganishgan. O'zbek tili imlosida "**yandex**" tarzida yozilsa-da, talaffuzda tovush ortishi ro'y beradi [yandeks], ya'ni *x* harfi ingliz tilida ikkita tovushni berganidek, o'zbek tili talaffuzida ham xuddi shunday o'qiladi.

"**Telegram**" mobil ilovasi yurtimiz hududida urfga aylangan android operatsion tizimida yaratilgan dastur hisoblanadi. "**Telegram**" so'zining ruscha tarjimai "**telegramma**" tarzida berilgan, S.Nazarov, F.Nazarova, N.Adizova, D.Poltayeva tomonidan tuzilgan "English-uzbek dictionary" kitobida ham ushbu

soʻzning tarjimasini **“telegramma”** tarzida berilgan²¹, lekin ushbu ilova foydalanuvchilari mazkur ilovani yuqoridagi nom bilan talaffuz qilishmaydi. Mobil ilovaga berilgan nom **“Telegram”** boʻlganligi, yuqorida nazarda tutilgan maʼnosida kelmaganligi sababli ham ushbu atamani asl holicha talaffuz qilinadi, demak imlo va talaffuzda ham ushbu atama asl holicha qoladi.

Ushbu bobda oʻzbek tilidagi android operatsion tizimi mobil ilovalari terminlarining leksikografiyasiga oid muammolarga biroz yechim berilgan. Tadqiqotda oʻrganilayotgan **“Yandex.taxi”**, **“Telegram”**, **“Payme”**, **“Google chrome”** mobil ilovalardagi oʻzbek tilidagi oʻzlashma terminlar qatlami, terminlarning tarjima lugʻatlarida berilishi usullari hamda ularning leksikografik talqini masalalari tadqiq etilgan.

Shuni alohida taʼkidlash joizki, lugʻatshunoslik va tarjimashunoslik sohasi boʻyicha oʻzbek tilshunos olimlar koʻplab yutuqlarga erishishgan. Filologik lugʻatlar oʻz-oʻzidan maʼlumki, bir tilli, ikki tilli va koʻp tilli lugʻatlarga boʻlinadi. Ikki tilli lugʻatlarda bir tildagi soʻz va iboralar boshqa tilga tarjima qilinadi. Shu sababdan bunday lugʻatlar tarjima lugʻatlar deb yuritiladi.²²

Ikki tilli lugʻatlarga Sh.Boʻtayev va A.Irisqulov tomonidan yaratilgan **“Inglizcha-oʻzbekcha va oʻzbekcha-inglizcha lugʻat”** misol tariqasida keltirsak boʻladi.

Bundan tashqari koʻp tilli lugʻatlar ham mavjud, ulardagi soʻz va iboralar ikkidandan ortiq tillardan iborat. M.I.Umarxoʻjayev, Q.N.Nazarovning **“Nemischa-ruscha-oʻzbekcha frazeologik lugʻat”**i, M.I.Umarxoʻjayev rahbarligida Andijon davlat chet tillari institutida tashkil etilgan **“ALTAIIM”** lugʻatshunoslik va tarjimashunoslik ilmiy markazida ham bugungi kunda maktab oʻquvchilari uchun fanlar kesimida uchraydigan terminlarning tarjimalari berilgan koʻp tilli onlayn, mobil ilovalarga mos tushadigan lugʻatlari yuqoridagi fikrimizning yaqqol isboti desak mubolagʻa boʻlmaydi.

Terminologik lugʻatlardan foydalanadiganlarning ehtiyojini toʻla qondirish uchun uning dizayni, tuzilishi leksikografik omillardan kelib chiqib yaratilishi kerak. Terminologik lugʻat tuzishda foydalanuvchining tanlagan fan sohasidagi bilimi, ularning umumiy til tayyorgarligi, maxsus maqsadlar uchun tilni bilishi va leksikografik kompetentligi hisobga olinishi zarur.

Izohli lugʻatlar quyidagi mikro tuzilishga ega boʻladi: (1) bosh soʻz; (2) fonetik tavsif; (3) grammatik xarakteristika; (4) bosh soʻz semantikasi; (5) bosh soʻzning birikish qobiliyati; (6) soʻzning yasaliş qobiliyati; (7) etimologik axborot; (8) illyustrativ misollar; (9) leksikografik izoh; (10) ensiklopedik axborot; (11) havola.

Lugʻatning makrostrukturasi –uning umumiy tuzilishiga tegishli strukturasi. Uning tashkil etuvchilari sifatida V.Dubichinskiy **“Kirish soʻz”**, **“Alifbo tuzilishi”**, **“Ideografik tuzilish”**, **“Lugʻatning oʻng tomoni”**, **“Lugʻatning chap tomoni”**, **“Lugʻat koʻrsatkichlari”** kabi qismlarni sanab oʻtadi²³.

²¹ S.Nazarov, F.Nazarova, N.Adizova, D.Poltayeva - English-uzbek dictionary – Toshkent 2013, B.699

²² <https://arxiv.uz/uz/documents/referatlar/tilshunoslik/leksikografiya-6>

²³ Дубичинский В.В. Теоретическая и практическая лексикография. – Вена-Харков, 1998. – 160 с. – С.34

Leksikografiyaning o'z tadqiqot predmeti, ilmiy va metodik prinsiplari, o'z nazariy problematikasi hamda boshqa fanlar silsilasida o'z o'rnini bo'lgan alohida fan ekanligi g'oyasini ilk bora qat'iyon olg'a surgan tilshunos olim sifatida Sherbatan olingan²⁴. Ammo Dubichinskiyning unga bergan ta'rifiga ("leksikografiya – bu lug'atlarni yaratish, tadqiq etish va qo'llash haqidagi fan") eng maqbul izoh sifatida qaraladi.

Yuqoridagi fikrlardan tushunishimiz mumkinki lug'atlarda uchraydigan terminlar mega, makro, mikro tuzilishlarga ega. Mega tuzilish tarkibiga Makro va mikro strukturalar kiradi va ular ham o'z navbatida turlarga ajralib ketadi.

Ko'p tilli lug'atlardagi atamalarining tarjimada foydalanishiga ko'ra faol (aktiv) va nafaol (passiv) turlariga bo'linadi. Faol tarjima doimiy foydalaniladigan va nutq jarayonida ham ishlatiladigan tur sanaladi. Nafaol tarjima esa faqat lug'at tarkibida o'rganiladigan, kundalik sharoitda foydalanadigan tur hisoblanadi. Eng qiziq jihati, mobil ilova terminlari faol va nafaol holatda qo'llaniladi, chunki mobil ilovalar orasida masalan "Google chrome" qidiruv tizimidan tez-tez foydalaniladi, sababi ma'lumotlar qidiriladi va yuklab olinadi. Shunga ko'ra, foydalanuvchi ularda qo'llanilgan terminlarga doimo duch kelinadi va ular orqali muloqot qilishga majbur bo'ladi.

Lug'at yaratish bo'yicha barcha amalga oshirilgan ishlar, turlari va yaratish usullari bilan tanishib chiqilgan ekan, tadqiqotchi tomonidan yaratilishi kerak bo'lgan uch tilli lug'at (inglizcha-ruscha-o'zbekcha)ning o'zbek tilidagi mobil ilova terminlarini qisqacha ko'rib chiqsa bo'ladi.

"Google chrome" mobil ilovasida qo'llanilgan o'zbek tilidagi terminlarni keltiradigan bo'lsak, birinchi navbatda ilovaning kaskad menyusidagi o'zbek tilidagi terminlar izohi berib o'tiladi.

"Sozlamalar" – (ot) ingl: "settings" рус: "настройки", **ta'rif:** foydalanuvchi mobil ilovada o'ziga qulay bo'lgan harakatlarni to'g'rilashi uchun qo'llaniladi. **Yasama so'z:** soz + la +ma / Ovozni sozlash uchun sozlamalar menyusiga kiring.

"Yuklanmalar" – (ot) ingl: "downloads", рус: "загрузки", **ta'rif:** foydalanuvchi tomonidan ma'lumotlarni internet veb-saytlaridan saqlab olinganda ko'rinadigan menyu. **Yasama so'z:** yuk+la+n+ma / saqlangan ma'lumotlarni ko'rish uchun yuklanmalar bo'limiga kiring.

"Bukmarklar" – (ot) o'zl. so'z – ingl: "bookmarks", рус: "закладки". **Ta'rif:** odatda foydalanuvchi tomonidan yaratilgan va ko'rilgan joyga yorliq bo'lib xizmat qiluvchi menyu yozuvi yoki belgi.

"Qidiruv tizimi" – (otli brk) - ingl: "search engine", рус: "поисковая система". **Ta'rif:** Internet tarmog'ida axborot qidirish va uni kataloglashtirish tizimi.

"Google chrome" mobil ilovasida "theme" termini qo'llanilgan va uning o'zbekcha tarjimasi "mavzu" tarzida berilgan, lekin shu holatda uning o'rniga

²⁴ Щерба Л. Языковая система и речевая деятельность. – 2-е изд., стереотип. – М.: Едиториал УРСС, 2004. – С. 308

boshqa o'zbek tilidagi atamani qo'llagan ma'qul, chunki leksik-semantik jihatdan *"theme"* termini *"cambride dictionary"* onlayn lug'atida *"kitob, film yoki suhbatning asosiy mavzusi"*, *"musiqiy shakl"* ma'nolarida qo'llanilgan²⁵.

"Sinxronlash" – (fe'l) kalka ingl: *"synchronization"*, рус: *"синхронизация"*.

Ta'rif: o'zgarib turadigan ikki yoki undan ortiq hodisa yoki jarayonlarni bir biriga moslashtirish.

Yuqoridagi nomutanosiblikni hisobga olgan holda *"mavzu"* leksemasining o'rniga birikmali leksema, ya'ni *"tizim ko'inishi"* tarzida almashtirilishi maqsadga muvofiq. Xuddi shunday termin *"Telegram"* mobil ilovasidagi chat sozlamalari menyusida *"chat mavzusi"* tarzida berilgan birikma uchraydi. Ushbu terminni ham *"chat ko'inishi"* tarzida o'zgartirilsa, foydalanuvchi uchun ham tushunarli bo'lar edi.

Mobil ilovalarda birikmali terminlar harakatlarni bajarish uchun ko'p qo'llanilgan. Bu fikr ilgari surilgani sababi shuki, ma'lumki ingliz tilida harakat nomi, ya'ni fe'lning noaniq shakllari *"to + infinitive"* yoki *"V + ing"* shaklida qo'llaniladi hamda *"to search web-adress"* – "saytni qidirish", *"to find in page"* – "sahifadan qidirish" shaklida berilishi kerak va agar shu holatda *to* predlogi tushirib qoldiriladigan bo'lsa, *"find in page"* birikmasi tarjima qilinganda buyruq gapga aylanib, *"sahifadan qidiring"* tarzida tarjima qilinishi kerak, lekin istisno tariqasida mobil ilovalarning terminlarini tarjima qilishda bu shakldan voz kechildi, ya'ni *"to+infinitive"* ishlatilmasa ham o'zbek tiliga harakat nomini ma'nosini beradigan birikmalardan foydalanildi.

"Ma'lumotlardan foydalanish", *"xotiradan foydalanish"*, *"avtomatik yuklab olish"* kabi birikmali yuqoridagi holatga misol bo'la oladi.

Tadqiqot jarayonida lug'atlarni tuzishda birinchi navbatda ularning mikrostrukturasiga e'tibor qaratish zarurligi yaqqol ko'zga tashlanadi, chunki mikrostruktura ta'riflanayotgan terminning barcha jihatlarini (fonetika, semantika, grammatika) ochib berishga asos sanaladi. Ushbu elementsiz lug'atlarni yaratish imkonsizdir. Keyingi holat shuki, barcha lug'atlar yig'ilgandan so'ng ularning makrostrukturasiga ham jiddiy e'tibor qaratilgan holda lug'atlar shakllanadi degan xulosaga kelindi.

Shu paytga qadar mobil ilovalari keltirilgan, bosh so'zi o'zbek tili bo'lgan uch tilli lug'at yaratish ishlari olib borilmagan. To'g'ri, axborot-kommunikatsiya texnologiyalari uchun yaratilgan izohli lug'atlar mavjud, lekin bu soha ham yoddan chiqmasligi kerak, sababi, mobil ilovalar hayotimizning har jabhasiga kirib kelmoqda hamda tilshunos va lug'atshunos olimlar bu masalaga jiddiy yondashishmasa, o'zbek tilidagi mobil ilovalar bo'yicha yaratilgan terminlar yagona shaklga keltirilmasa, ular shu tariqa qolib ketaveradi.

XULOSA

Dissertatsiyada berilgan nazariy fikrlar va tahlillar asosida quyidagi umumiy xulosalarga kelindi:

²⁵ <https://dictionary.cambridge.org/dictionary/english/theme>

1. Ingliz, rus va o'zbek tillari android operatsion tizimi mobil ilovalari (AOTMI) terminologiyasini qiyoslash uch tildagi mobil ilova terminlarning umumiy va o'ziga xos belgilarini aniqlash imkonini berish bilan birga, har uch terminologik tizimni chuqur o'rganish imkonini ham yaratadi. Izlanishlarimiz AOTMI terminologiyasi yaxlit bir sistema sifatida bir qancha mavzuiy-mazmuniiy guruhlardan tashkil topganini yaqqol ko'rsatdi.

2. Terminologik faoliyatni taqqoslash jarayonida paydo bo'ladigan murakkabliklar nafaqat alohida tillarning o'ziga xosligi, balki terminlarning milliy tillar tizimidagi alohida o'rni bilan bog'liqligini ko'rsatadi.

3. Android operatsion tizimi mobil ilovalari (AOTMI) terminlarining deyarli barchasi morfologik xususiyatiga ko'ra asosan substantiv va atributiv xarakterdagi terminlardan iborat. Har uch tilda ham AOTMI terminologiyasi tizimining kengayib borishi affiksatsiya usuli sarmahsulligidan kelib chiqadi. AOTMI terminlarining yasashida termin yasovchi prefikslar roli ham faol.

4. Android operatsion tizimi mobil ilovalari (AOTMI) o'zbek tilidagi terminlarining leksik-semantik usul bilan yasashida metafora va metonimiya hodisasi mavjud. Metonimiya hodisasi metaforaga nisbatan kamroq. Metafora va metonimiya termin yasashida ekstralingvistik hodisalarga bog'liq. Ular asosan ot so'z turkumiga taalluqliligi bilan xarakterlanadi.

5. Barcha terminologik tizimlardagi kabi android operatsion tizimi mobil ilovalari (AOTMI) terminologiyasida ham sintaktik usulda yasalgan terminlar soni bir so'zdan iborat terminlarga nisbatan ancha salmoqli o'rinni egallaydi. Sintaktik usul bilan yasalgan terminlar barcha tillarda bo'lganidek, o'zbek tilida ham muhim nominativ manba sanaladi. Ingliz, rus va o'zbek tillarida android operatsion tizimi mobil ilovalari (AOTMI) ikki komponentli birikma terminlar Ot+Ot ko'rinishida keng tarqalgan bo'lib, bunda konversiya hodisasi mavjud.

6. Android operatsion tizimi mobil ilovalarining shiddatli rivojlanishi va hayotimizning turli jabhalarida faol qo'llanilishi natijasida, turli soha mutaxassislari tomonidan ma'lum bir tushuncha har xil terminlar bilan, qolaversa har xil shakllarda qo'llanilishiga olib keldi. Bu esa ayni sohada sinonimiya munosabatining keng tarqalishiga sabab bo'ldi.

7. Ingliz tilida faol qo'llaniladigan 836 dan ortiq AOTMI terminlarining 47%i ekvivalent, 33%i kalkalash, 10%i izohli, 10,22%i transliteratsiya usuli orqali o'zbek tiliga tarjima qilinishi aniqlandi.

8. Rus tilida ham boshqa tillar kabi genetik jihatdan bir xil xususiyatga ega va tarjima muqobili mavjud bo'lmagan leksemalarni turli usullarda aynan o'zlashishi, ulardagi imlo va talaffuz rus tili leksikasiga katta ta'sir qilish hamda imlo qoidalari bo'yicha ba'zi me'yorlarning chetlab o'tilishiga to'g'ri kelgani aniqlandi.

9. Android operatsion tizimi mobil ilovalari (AOTMI) terminlarining ingliz, rus va o'zbek tillarida berilishining tahlili jarayonida mobil ilovalardagi har bir oynada foydalanilgan terminlar mavzuiy tarzda ajratib olindi, terminlar bir-biriga qiyoslandi, tanlanma asosida tavsiflandi. Mavzuiy guruhlar quyidagilar: *“Kirish qismi menyusidagi ilova atovchi terminlar”, “bosh (asosiy) menyusidagi*

foydalanuvchi interfeysidagi terminlar”, “*kaskad menyusidagi dasturiy vosita terminlari*”, “*ichki (sozlamalar) menyusidagi dasturiy vosita terminlari*”.

10. Mavjud android operatsion tizimi mobil ilovalari (AOTMI) terminlari lug‘atlarida terminlarning turli o‘zbekcha tarjima variantlari miqdori ko‘paygan, ammo ularning barchasini ham barqaror tarjima variantlari deb bo‘lmaydi. Mobil ilovalarda tarjimasi bir-biriga to‘g‘ri kelmaydigan holatlar ham uchraydi. Ingliz tilidan o‘zbek tiliga terminlar tarjima qilinganida so‘zma-so‘z tarjima qilishga odatlanib qolingani, ayniqsa, mobil ilovalarda ko‘plab uchraydi.

11. Uch tilli lug‘atlarda tarjima orqali so‘z yasalishi nazarda tutiladi. Ayni paytda tarjima orqali android operatsion tizimi mobil ilovalari (AOTMI) terminologik birliklarining turli tizimli tillardagi o‘ziga xos lingvistik xususiyatlari aks ettiriladi. Android operatsion tizimi mobil ilovalari (AOTMI) lug‘atiga terminlarni tanlab olish jarayonida quyidagilarga e‘tibor berish lozim: dolzarblik, takrorlanish, mavzuni tushunishga yordam beradigan kontekstual terminlar va ularning amaliy ahamiyati. Tarjimada qo‘llaniladigan terminologik lug‘at nafaqat manba tilning so‘zlarini va ularning tarjima ekvivalentlarini o‘z ichiga olishi kerak, balki ushbu terminning tushunchasi bilan o‘zaro bog‘liq boshqa sinonim so‘zlar lug‘atidan ham iborat bo‘lishi kerak.

12. Inglizcha-ruscha-o‘zbekcha android operatsion tizimi mobil ilovalari (AOTMI) terminlari lug‘atini ishlab chiqishda uning barcha xususiyatlarini hisobga olish zarur. Bunday lug‘atlar AOTMI sohasining ma‘lumotnoma-qo‘llanmasi sifatida, muayyan tushunchalar tizimini aks ettirishi va mutaxassislarning ilmiy va amaliy faoliyatlari uchun faol terminlarni o‘z ichiga olishi kerak.

**SCIENTIFIC COUNCIL AWARDING DOCTOR OF PHILOSOPHY
(PhD) SCIENTIFIC DEGREE PhD.03/29.12.2022.Fil.156.01 AT
ANDIJAN STATE INSTITUTE OF FOREIGN LANGUAGES**

NAVOI STATE PEDAGOGICAL INSTITUTE

MAKHAMMADOV BOBIR ISAN UGLI

**ANDROID OPERATING SYSTEM MOBILE APPLICATION TERMS IN
UZBEK, RUSSIAN, AND ENGLISH LANGUAGES**

**10.00.06 – Comparative literature, contrastive linguistics
and translation studies**

**ABSTRACT
of dissertation of the doctor of philosophy (PhD) in PHILOLOGICAL SCIENCES**

The theme of the dissertation of Doctor of Philosophy (PhD) was registered at the Supreme Attestation Commission of the Republic of Uzbekistan under number B2022.1.PhD/Fil2268.

The dissertation has been carried out at Navoi state pedagogical institute.

The abstract of the dissertation is posted in three languages (Uzbek, Russian, English(abstract)) on the website of the Scientific Council (www.adchti.uz) and on the website "ZiyoNet" information and educational portal (www.ziyounet.uz).

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INTRODUCTION (Abstract of PhD dissertation)

The relevance and necessity of the dissertation topic. Through the use of information and communication technologies on a global scale, the development of mobile applications on the Android operating system is rapidly increasing, leading to the emergence of new concepts in this field. As a result, there is a need for corresponding terms to be introduced into the world languages. In turn, it is important to analyze the semantic and structural characteristics of the terms used in Uzbek, Russian, and English in mobile applications, identify their lexicographic features and improve the accepted translation methods as well as create trilingual dictionaries.

With the initiative of the President of the Republic of Uzbekistan, equal social, economic, cultural, and educational relationships have been established with many developed countries since the early years of independence. Nowadays, the development of such relationships has led to the widespread use of mobile applications in society, especially in social and economic fields, as well as the emergence of new concepts and terminologies in these areas. As a result of the growing popularity of these applications in recent years, certain scientific studies have been conducted to investigate and organize the modern lexis of this field and to establish standard terminologies and concepts and to create explanatory dictionaries. However, there is still much work to be done in this area.

In the field of linguistics, efforts to standardize and organize terminology have been carried out not only in the realm of one-language terminology, but also in the areas of two- and three-language terminology. Although certain terminology in specific fields has been standardized to a degree and given more attention, the terminology of mobile applications has not been given much attention, and the use of English terminology in mobile applications is often accepted without question, as changes to the meaning of terms are not perceived as necessary.

In the field of national linguistics, the linguistic, lexicographic, semantic and translation-specific characteristics of mobile application terminology have not been identified and the means to standardize terminology in this area have not been developed. To address this, it is necessary to identify the thematic groups of mobile application terminology, base their lexicosemantic characteristics, establish the structural models of terminology, investigate the processes of adaptation of common and specialized terminology in national languages, improve translation methods, standardize synonymic, antonymic, and variant states of terminology, propose ways of using terminology, improve lexicographic explanations, create translation dictionaries, and solve problems such as these. The creation of high-quality mobile applications can be achieved by addressing these issues and users can benefit from this to a significant degree.

The mentioned research work serves to develop digital technologies in Uzbekistan and is carried out within the framework of the presidential decree PD 4699¹ of April 28, 2020 "On measures to widely implement the digital

¹ O'zbekiston Respublikasi Prezidentining 2020-yil 28-apreldagi «Raqamli iqtisodiyot va elektron hukumatni keng joriy etish chora-tadbirlari to'g'risida» qarori // <https://lex.uz/docs/-4800657>

economy and electronic government" and the presidential decree PD-6079² of October 5, 2020 "On approving the strategy "Digital Uzbekistan - 2030" and measures for its effective implementation", as well as the presidential decree PD-5117³ of May 19, 2021 "On further improving the activities to popularize the learning of foreign languages in the Republic of Uzbekistan from the perspective of quality" and the specified tasks in the relevant legal documents.

The relevance of the research to the priorities of the development of science and technology in the country. The dissertation is part of the priority direction of the development of science and technology of the Republic "Formation of a system of innovative ideas and ways to implement them in the social, legal, economic, cultural, spiritual and educational development of an informed society and a democratic state"⁴.

Level of study of the problem. In the field of world linguistics, the importance of philological and specialized dictionaries, especially terminography, and their compilation, as well as highlighting their unique aspects in terms of terminological consistency in a particular field, has been demonstrated. In addition, comprehensive philological or specialized dictionaries have been compiled and research has been conducted on explaining terminology units, with a number of achievements made in this area.⁵ In our national linguistics, lexicography also began with the era of Mahmud Kashgari as one of the most important branches of linguistics.

A number of research studies dedicated to the lexicographic features of terminology in Uzbek linguistics have been conducted, and dictionaries and handbooks have been published. The issue of terminology in the Uzbek language has been explored by M.E. Umarxojayev, X. Dadaboyev, I.X. Sadikova, S.X. Nurmatova, O. Tursunova, P.P. Nishonov, O.S. Ahmedov, H.V. Mirzahmedova, S. Muhamedova, and S.T. Mustafayev⁶. The linguistic study

² O'zbekiston Respublikasi Prezidentining 2020-yil 5-oktabrdagi «Raqamli O'zbekiston — 2030» strategiyasini tasdiqlash va uni samarali amalga oshirish chora-tadbirlari to'g'risida» // <https://lex.uz/ru/docs/-5030957>

³ O'zbekiston Respublikasi Prezidentining 2021 yil 19 maydagi «O'zbekiston Respublikasida xorijiy tillarni o'rganishni ommalashtirish faoliyatini sifat jihatidan yangi bosqichga olib chiqish chora-tadbirlari to'g'risida» <https://lex.uz/docs/-5426736>

⁴ O'zbekiston Respublikasi Innovatsion rivojlanish vazirligi huzuridagi Ilmiy-texnik axborot markazi - O'zbekiston Respublikasida ilm-fan va innovatsiyalar sohasining qonunchilik va meyoriy-huquqiy asoslari bo'yicha dayjest – T: 2020, B. 14

⁵ Горностаев Г.Н., Забинкова Н.Н., Каден Н.Н. Латинские названия животных и растений. – М.: Изд-во МГУ, 1974. – С.146; Felber H. International standardization of terminology: theoretical and methodological aspects. – Paris: Vienna, 1977. – P. 264; Даниленко В. П. Русская терминология. Опыт лингвистического описания. – М.: Наука, 1977. – С.200; Лотте Д.С. Очередные задачи технической терминологии // История отечественного терминоведения: классики терминоведения. Т. 1. – М., 1994; Виноградов В.В. Лексикология и лексикография: Избр. тр. – М., 1977 – С.310; Фролова О.П. Китайская терминология как лексическая подсистема / Сб. тезисов II конф. по китайскому языкознанию. – М., 1984. – С.77-79; Шевченко Г. И. Дверь в латинский язык и биологическую терминологию. – Минск, 1999. – С.115; Герд А.С. Основы наудотехнической лексикографии: (как работать над терминологическим словарем). – Л., 1968; Гринев С.В. Введение в терминологию. 2-е изд., перераб. и доп. – М., 1995;

⁶ Mustafayeva S. - Xitoycha – o'zbekcha tilshunoslik terminlari. Toshkent: Fan va texnologiyalar Markazi, 2014. B.111; Muhamedova S va mualliflar jamoasi. Bank-moliya terminlarining o'zbek tilidagi izohli lug'ati. Toshkent: Innovatsiya-Ziyo, 2020. – B.157; M.Umarxo'jayev, Q.Nazarov – Nemischa –ruscha – o'zbekcha frazeologik lug'at. Toshkent: O'qituvchi, 1994. – B.160.

of technical terms has been pursued by D.X. Kadirbekova⁷, N.A.Martinova⁸, A.B.Adigeneyeva⁹, D.Kamchibekova, O.S.Ahmedov, P.P.Nishonov¹⁰, X.Paluanova. It should be emphasized that linguists and terminologists in the world and in our country have achieved many successes in linguistic analysis of lexemes in terminology and specialized terminology, as well as in compiling dictionaries. Despite the fact that world and domestic scientists have made significant scientific research in the field of ICT terminology, our linguists who are interested in terminology have been left behind in the use of terminology related to mobile applications. In particular, linguists such as¹¹, Ye.V.Tixonova¹², D.X.Kadirbekova¹³, D.M.Amirova, A.Y.Atadjanova, D.A.Ibragimova¹⁴ have conducted partial research on mobile application terminology and compiled explanatory dictionaries.

In the above-mentioned studies, although ICT terms in various languages have been analyzed and studied, their modern aspects, especially other aspects of terms used in mobile applications that are important for today, have not been studied, meaning that linguistic, structural, translation methods and lexicographic concepts related to these terms, in comparison with English, Russian and Uzbek languages, have not been the subject of research from a comparative-typological perspective.

The relevance of the scientific-research works of the higher education institution where the dissertation research was conducted to the implementation of the dissertation research.

The research has been carried out within the framework of the scientific-research plan on "Comparative linguistics, linguistic translation studies and lexicology issues" of the Navoi State Pedagogical Institute.

The purpose of the research is to identify and describe the linguistic characteristics of Android operating system mobile applications (AOSMA) terminology in English, Russian, and Uzbek languages.

⁷ Kadirbekova D.X. Ingliz va o'zbek tillarida axborot texnologiyalari terminologiyasining lingvistik xususiyatlari. Monografiya. – Toshkent: Fan va texnologiya, 2016. – B.128

⁸ Мартынова Н.А. Роль терминологической лексики в формировании коммуникативной компетенции специалиста // Общество и человек. – 2014, №1 (7). – С. 67-72.

⁹ Адигенеева А.Б., Камчибекова Д. К вопросу о преподавании профессиональных терминов в русском языке. Электрон пецурп: https://revolution.allbest.ru/pedagogics/00554873_0.html. Murojaat sanasi: 30.08.2021.

¹⁰ Nishonov P. Fransuz va o'zbek tillari yuridik terminologiyasining qiyosiy-tipologik tadqiqi: Filol. fanlari nomz. ... diss. avtoref. – T.: 2009. – B.26

¹¹ Беликова И.А. - Особенности образования терминов неологизмов в подъязыке компьютерной техники: Дис. канд. филол. наук. – Омск, 2004; Орел Т.И. Структура и номинативно-образовательные характеристики английской терминосистемы телекоммуникации. Дис. канд. филол. наук. – М., 2005; Ходакова А.Г. - Системная семантика термина на материале англоязычных терминов Интернета. Дис. канд. ... филол. наук. – Белгород, 2010; Мусаходжаев С.И. - Лингвостатистический анализ узбекского научно-технического текста и терминологии подъязыка электротехники и электроники. Филол. фан. ... номзод. дисс. иши. – Т., 1986;

¹² Тихонова Е.В. Формирование английской терминологии мобильных средств связи и её лингвистические особенности. Дис. канд. ... филол. наук. – Омск, 2003.

¹³ Kadirbekova. D.X - Inglizcha-o'zbekcha axborot-kommunikatsiya texnologiyalari terminologiyasi va uning leksikografik xususiyatlari – avtoref.diss ... f.f.n – Toshkent, 2017

¹⁴ Amirov D.M, Atadjanov A.Y, Atadjanov D.Y, Ibragimov D.A. va boshqa - Axborot-kommunikatsiya texnologiyalari izohli lug'ati – Toshkent: BMTTDning O'zbekistondagi vakolatxonasi, 2010 – B.573

The tasks of the research are as follows:

classifying thematic groups of Android operating system mobile application terminology;

exploring the lexical-semantic characteristics, homonymy, synonymy, and antonymy relationships of Android operating system mobile application terminology in English;

identifying the genetic characteristics of Android operating system mobile application terminology in English and analyzing them from a structural perspective;

analyzing the morphological and structural characteristics of Android operating system mobile application terminology in Russian through corpus-based research;

identifying translation methods and creating models for translating Android operating system mobile application terminology in Uzbek and Russian, and demonstrating their equivalence characteristics;

analyzing the orthoepic and orthographic aspects of Android operating system mobile application terminology in Uzbek and Russian;

providing suggestions for improving a comprehensive dictionary to address the shortcomings identified through the analysis;

creating a list of Android operating system mobile application terminology for entry into the explanatory dictionary;

to complete the lexicographic representation of android operating system mobile application terms in uzbek, russian, and english, and to create a trilingual terminological dictionary with the headword in uzbek.

As the object of the research, English, Russian, and Uzbek terms given in the "Google Chrome," "Telegram," "Yandex.Taxi," "Payme" mobile applications have been selected.

The subject of the research comprises the formation, structure, lexical-semantic and lexicographic features, as well as translation methods of Android operating system mobile application terminology in English, Russian, and Uzbek languages.

Research methods. The description of the dissertation topic involved the use of descriptive, linguistic, comparative-typological, componential analysis, systematic analysis, and linguistic statistical methods to determine the place of terms in the linguistic system, structure, and characteristics of the Android operating system mobile application terms in English, Russian, and Uzbek languages.

The scientific novelty of the research consists of the following.:

the semantic groups of terms related to Android operating system mobile applications (AOSMA) in English, Russian, and Uzbek languages have been identified and the lexical-semantic characteristics of terms within each group have been demonstrated.;

it has been identified that the characteristic of homonymy has emerged as a result of the creation of new semantic derivations among the interrelated lexemes in the meanings of polyfunctional terms used in English mobile applications;

the characteristics of the paradigmatic structure of terms related to Android operating system mobile applications (AOSMA) in English, Russian, and Uzbek languages have been explained, and the morphemic and semantic derivational features of each term in all three languages have been established;

the synonymous and antonymous relationships of terms related to Android operating system mobile applications (AOSMA) in English, Russian, and Uzbek languages have been identified, and the interlinguistic integral and differential schemas have been explained.;

The practical results of the research are as follows:

based on the terminology of Android operating system mobile applications in English and Russian, the adaptation of the same field terminology in Uzbek language and the methodical guidance of compiling a trilingual dictionary of terms has been improved. In this way, all the terms of Android operating system mobile applications in Uzbek language have been researched using lexicographic methods and combined into a single corpus on the website "etimolog.uz";

based on the viewpoint of creating new dictionaries for new concepts, strategies for developing microstructures of dictionaries have been developed for mobile application terms;

a trilingual Uzbek-Russian-English translation dictionary for mobile application terminologies in the form of a website has been created;

the practical proposals and recommendations have been developed to improve the derivation features of Android operating system mobile application terms, as well as to improve comparative terminology and terminography methods.

The reliability of research results. The reliability of research results is commented upon based on the collections of materials of national and international scientific-methodological and scientific-practical conferences, articles, abstracts published in special journals listed in the SCI, as well as the practical implementation of proposals and recommendations, confirmed by reputable organizations.

The scientific and practical significance of research results. The scientific importance of research results has been identified in the context of the Android operating system, indicating the place of mobile application terminology in linguistic areas such as comparative terminology, lexicology, and translation studies. It is noted that it serves as a source in describing the linguistic characteristics of other terminological systems, and contributes to the development of the research scope in these areas.

The practical significance of the conclusions drawn from research results is highlighted in the field of creating mobile applications, where it contributes to the effectiveness of terminology and lexicography, as well as international information exchange systems. It is also emphasized that it is of great importance in creating dictionaries, textbooks, and teaching manuals in higher education institutions, developing various methodological recommendations, and training specialists in the field of information and communication technologies.

Implementation of research results. Based on scientific results and practical suggestions, the terminology of mobile applications in the Android operating system has been developed in Uzbek, Russian, and English languages:

Based on scientific research and practical recommendations, the lexicon and lexicographic description of the terminology of mobile applications in the Android operating system in the Uzbek language were analyzed, as well as the analysis of the use of these terms in each screen of mobile applications in English, Russian, and Uzbek languages. As a result, a project titled "bolalaradabiyoti.uz" and its mobile application were created by Alisher Navoiy Tashkent State University of Uzbek Language and Literature in 2021-2023 to separate the terms used in entry, main (basic), cascade menu, and internal (settings) menu of mobile applications in a thematic manner. This project was based on innovative technology (No. IL - 402104474) and used to create the electronic platform and mobile application "bolalaradabiyoti.uz". The University's information letter No. 01/4-3526 dated December 21, 2022 stated that a consolidated list of necessary terms to be used in "bolalaradabiyoti.uz" electronic platform and its mobile application was compiled.

The Android operating system is used for mobile applications, and the terms related to these applications are mostly written in English. Mobile applications and electronic platforms are typically written in programming languages such as "Java", "Python", and "PHP". The terms used in these languages are primarily written in English, and are translated into Russian and Uzbek for users. Each mobile application or electronic platform consists of sections such as "login (basic/application identifier)", "header (user interface)", and "internal and cascade (programmable tools)". The Alisher Navoiy Uzbek Language and Literature State University utilized the practical project № PZ-2020042022, created in 2020-2021, to develop the "Linguodidactic Electronic Platform for Turkish Languages". This project used one of the primary resources for creating the Uzbek translation of the cascade menu terms for the Linguodidactic Electronic Platform for Turkish Languages. (Information document No. 01/4-3655 of December 27, 2022 from the Alisher Navoiy Uzbek Language and Literature State University).

According to the information provided by the Uzbek National Television and Radio Company in its memorandum dated November 30, 2022, various TV and radio programs such as "Assalom, yangi kun" ("Hello, New Day"), "Til – millat ko‘zgusi" ("Language - National Identity"), and "Dolzarb mavzu" ("Current Topic") of Navoiy region have been used to further discuss the issues and solutions related to research, as well as to provide suggestions and opinions on the use of Uzbek language terms in daily life, especially in mobile applications.

As a result, through these programs, information has been provided on the etymology and usage of terms used in popular mobile applications such as "Google Chrome," "Telegram," "Yandex.Taxi," and "Payme," as well as the fact that many of these terms are repeated in various applications. The aim of these programs is to encourage young people to use the Uzbek language more widely and to address some of the difficulties in using Uzbek language terms in mobile applications.

Implementation of research results. The results of the dissertation were presented at 6 republican and international scientific-practical conferences, as well as 2 foreign scientific-practical conferences.

Publications of research results. On the basis of the main content of the dissertation, 16 scientific articles and abstracts have been published. The Higher Attestation Commission of Uzbekistan recommended the publication of the main results of the doctoral dissertation in scientific publications, and 8 scientific publications were published, including 3 articles in international journals.

The structure and scope of the dissertation. The dissertation consists of an introduction, three chapters, a conclusion, a list of references and appendices. The total volume of the dissertation is 169 pages.

THE MAIN CONTENT OF THE DISSERTATION

The introductory part is based on the relevance of the topic, describes the goals and objectives, object and subject of research, shows its relevance to the priorities of science and technology, describes the scientific novelty and practical results, reveals the scientific and practical significance of the results. information on the structure of the dissertation, published works and dissertations.

The first chapter of the dissertation titled "**Semantic, genetic, and structural features of terminology of android operating system mobile applications (AOSMA) in English**" deals with terminology and terminological issues, as well as theoretical and practical aspects of the terminology of English language mobile applications used in mobile applications. In addition, in this chapter, the classification of thematic groups of Android operating system mobile application terms is presented, their semantics, genetic characteristics, and structure of the terms are analyzed.

The term terminology refers to a specialized group of words and meanings related to a specific field of linguistics, and when a field or discipline advances, specific terms in that language emerge.

The emergence of new meanings for existing words is considered another useful source of the increase in word length. Semantic expansions demonstrate the increase in the quality aspect of word length.

There are many English explanatory dictionaries that serve as excellent sources for defining the meanings of words in English and distinguishing between words with multiple meanings. In particular, the "Merriam-webster" electronic dictionary, which has been published since 1828, the "Oxford English Explanatory Dictionary," the "Collins English Explanatory Dictionary," the "Cambridge English Explanatory Dictionary," and English dictionaries published by "Macmillan" are among the most trusted sources.

Palmer provides information on the use of the term "semantics" in terms of its application in linguistics in his book "Semantics - A New Approach". He refers to semantics as a component of linguistic interpretation, similar to phonetics and grammar. Furthermore, most linguistic scholars accept a model that evaluates semantics as the final stage, phonetics as the initial stage, and grammar as the

middle stage of linguistic interpretation. The book also describes language as a communication system that connects through various signs and symbols, and emphasizes the importance of understanding the connections between the different signs and symbols in the language.¹⁵

When referring to the genetic characteristics of words, their origins are understood, which is called etymology. Etymology includes three concepts: 1) the linguistic field that studies the origins of words and morphemes; 2) a set of research methods for identifying the origins of words; and 3) the origin of a word. In the 20th century linguistics, the term "etymology" was also used to refer to the meaning of "grammar".¹⁶

Currently, all languages are evolving and dictionaries are expanding. Taking the example of the English language, even though many words have been present in our language for a long time, new words are constantly being added to the language. This is an ongoing process that reflects the evolution of language over time.

There are various methods to study the structure of the English language, such as, through the analysis of word components, the meaning of words, the formation of words from small meaning units, the pronunciation of words, the structure of words, the etymology of words, the lexical semantics of words, the usage of words, and the lexical characteristics of words.

In the research process, the terms used in the mobile applications "Google Chrome", "Payme", "Telegram", "Yandex.Taxi" were classified into thematic groups: "login section", "main menu (on the user interface)", "cascade menu", and "internal settings menu".

The analysis of the semantics, structure, and genetic characteristics of the terminology of the mobile applications listed above is as follows:

The term "Telegram" is formed by adding the suffix "*tel*" as a word-forming element, similar to the word "*television*", which is also derived from the Greek language and means "*distant*". The suffix "*gram*" is considered as an auxiliary suffix that indicates writing, and it is derived from the Greek word "*gramma*", which means "*letter*" or "*written character*". When the two suffixes are combined, the word "*telegram*" is formed. This term was first used in the precise form in the "Tungi journal" in Albania, on April 6, 1852.¹⁷

The "Telegram" mobile application was introduced in 2013. Its founders are Russian programmers Pavel Durov and his brother Nikolai Durov. Today, the "Telegram" mobile application works on various operating systems such as iOS, Android, Windows Phone, Win, Mac OS, and Linux. It cannot be concluded that this term emerged solely in the field of linguistics, as it has been recently discovered that it was coined in the form of a coded message.

"Google Chrome" is a two-component term, and if we define the "Google" term, this term has been used since 1999. The domain "google.com" was registered in 1997, and the famous company was named after this name. According to the

¹⁵ Palmer F.R. - Semantika – yangi qo'llanma (a new outline) -. 1971. B. 2-6

¹⁶ <https://uz.wikipedia.org/wiki/Etimologiya>

¹⁷ https://www.etymonline.com/word/telegram#etymonline_v_7690

company, the name "google" was created in collaboration with Larry Page and Sergey Brin, who wanted to create a search engine that could collect millions of information in one place. According to the "Merriam-Webster" English dictionary, "Googol" is understood as a large number, i.e. in the form of 10^{100} . The term "**Chrome**" is derived from the French language, and this name was initially coined as a new element by Fourkroy and Havy. However, initially, this term was called "khroma" or "chromium" in Greek. Later, in 1798, the French chemist Louis Nicolas Vauquelin named it "chrome" as a metal. The logo of the "Google Chrome" mobile application is also designed to resemble the chrome element.

"**Yandex.taxi**" is a search system created by Russian developers, similar to "Google Chrome". It is a networked system that helps users search for various types of information, including taxi drivers. The first use of the "Yandex" name was by Arkadiy Voloz and Borovskiy, who worked on search technology at a small company called "Arkadiya". In 1993, they decided to change the name of their system after it had developed. The English words "search" and "index" were considered as alternatives, and "index" was ultimately chosen. The abbreviation for "Yet Another Indexer" led to the name "Yandex". From then on, Voloz replaced the first two English letters of the word in the logo with the Russian letter Я ("Ya" in English, which means "I" or "Me"), making it a bilingual name. In 2000, "Yandex" started operating as a company.

In March 1907, the word "**Taxi**" originated from the phrase "taximeter cab" which is a shortened version, and it was used in London.

"**Payme**" is a mobile application created by Uzbek developers in 2013, which is a type of service used for all types of payments and transfers. The term "Pay" is derived from the Old French word "paier" from the 1200s. "Me" is a colloquial term meaning object pronoun, which is taken from Old English. In English, "I" is used as a type of personal pronoun.

Through the analysis of simple and complex lexicons in the English language, it was discovered that out of 836 terms used in mobile applications, 642 of them were part of a complex lexicon, making up 76 percent of the total terms used. Additionally, 121 terms were used in all mobile applications in a consistent manner, because these terms performed the same function.

During the research work, 246 terms of the "Telegram" mobile application, 295 terms of the "Google Chrome" mobile application, 125 terms of the "Yandex.Taxi" mobile application, and 170 terms of the "Payme" mobile application were entered into the application. Among them, 26 terms that are familiar to the main user were analyzed from a semantic point of view.

According to this, out of the total 836 terms, 124 have the characteristic of homonymy, 28 terms have the characteristic of polysemy, and nearly all terms have the characteristic of synonymy.

According to research, single-component lexemes are also found among the terms in mobile applications. In the process of studying the constituent and shape-forming additives in them, it can be said that in English, the process of adding additives to lexemes has greatly evolved to differentiate them from other

languages. The phenomenon of affixation in them has not left its influence on other languages.

In the chapter titled **"Translation of Android operating system mobile application (aosma) terminology into russian"** of the dissertation, the translation, formation and morphology of the terminology used in Russian-language mobile applications were studied. The pronunciation of the terms was also analyzed.

As is known, the borrowing of words from other languages in Russian is called "заимствование". The modern Russian lexicon is divided into two large groups: the first is the pure Russian lexicon and the second is Russian words borrowed from other languages. The first Russian lexicon includes words borrowed from Indo-European languages, Slavic languages, Eastern Slavic languages, and lexicons used in the Russian language. The lexicons that are made up of the above-mentioned words form the national basis of the Russian language. Words that are borrowed from other languages are called borrowed words. The process of borrowing words from other languages has been going on throughout the history of the Russian language, and during its development, the Russian language has been influenced by Turkish languages, especially the Ottoman Empire, as well as by the French, German and English languages through the Netherlands.

According to the famous philologist I. Ogiyenko, the first part of the history of the Russian language is characterized by borrowing from ancient languages such as Turkic, Greek, and Latin. The second part of the history of the Russian language, on the other hand, is characterized by borrowing from modern languages such as German, French, English, Polish, and others.¹⁸

According to the article by the linguist S. Sireskin, the process of borrowing words can be carried out in three ways: 1) adaptation; 2) transcription; 3) transliteration.

As we have seen above, we have learned some information about how borrowings are adapted into various languages through different methods. In addition to this, it is also important to pay attention to the pronunciation and intonation of words borrowed from the English language into Russian, as the pronunciation of borrowed words in Russian remains the same as in English, but the way they are written in the text may vary.

According to Y.K. Grot, many questions arise about the orthography of the words he collected in his Russian language research. The most perplexing aspect of linguistics for Grot was the duplication of foreign sounds that have no equivalent in Russian. For example, the combinations [jo], [ja], [je] are written in Russian as «э».

In the second half of the 20th century, the study of the spelling of newly coined words entered a new phase. Questions about the spelling of new words were raised and the solutions to these questions were given in the spelling rules found in clear examples of text. For example, L. Maksimov's article on the use of

¹⁸ Огиенко И.И., Иноземные элементы в русском языке: история проникновения заимствованных слов в русский язык, 2010. – С.136.

the letters "э" and "е" in newly coined words provides a vivid example of this issue. In addition, articles by N. Yeskovoy and Y. Shubova on the use of the letter "э" after certain suffixes, and by M. Glovinskiy and L. Kalakulskaya on the use of double letters, provide solutions to the above problem.¹⁹

All the articles and scientific works related to the spelling of words and their pronunciation based on the origin and structure of the word have been summarized in one common problem. Some sounds that cannot be represented by any letter or combination of letters are absent in the rules of the Russian language orthography. Additionally, it should be noted that there are differences between the spelling and pronunciation of the words that have been borrowed from other languages.

The development of information technologies and the creation of software products have led to the emergence of new words in the Russian language, just like in other languages. One of the most interesting examples is the word "Google," which is used to refer to the popular search engine. The pronunciation and spelling of this word in English are different, which is not surprising, given that the English transcription of words is used as a means of correct pronunciation rather than representing the spelling. The electronic Cambridge Dictionary provides the pronunciation of "Google" as [gu:gl], even though the word consists of six letters, it is pronounced with only four sounds, where two letters represent a single sound. In the Russian language, this word is spelled as "гугл" in explanatory dictionaries.

If we take the word "**Telegram**" as an example, although this application was created by a Russian developer, its name is not derived from the Russian language, so we can add this word to the list of borrowed words. In terms of spelling and pronunciation, the word consists of 8 letters and has just as many sounds in its pronunciation. It includes 3 vowels and 5 consonants. The vowel sounds are not pronounced as they would be in their original form, but rather as the Russian "е" sound [э].

If we analyze the word "**Яндекс такси**" ("yandex taxi"), there are 6 letters and 7 sounds in the first word "яндекс", where the first and last letters are the same letter "я", but it produces two sounds. As for the second word "такси" ("taxi"), there are as many sounds as there are letters in the spelling, and there are no changes or variations in pronunciation.

According to the spelling and pronunciation of "**Payme**", it is a compound word made up of "pay" and "me". In the online "Cambridge dictionary", it is pronounced as [peimi:]. In Russian, the pronunciation is also the same as in English.

We obtained detailed information about the structure and meaning of the terms used in mobile applications of the Android operating system, as well as the process of their formation, based on the study conducted using Russian language sources. The research topic is focused on mobile application terms. Analysis of the structure and meaning of the terms used in mobile applications such as

¹⁹ Нечаева И.В - Актуальные проблемы орфографии иноязычных заимствований. Издательский центр «Азбуковник», Москва. – С.21-23.

"Yandex.taxi", "Payme", "Google Chrome", and "Telegram" is considered an important aspect of the study.

It is possible to discuss the concept related to the structure of terms using the textbook of T. Volinets. Specifically, the legal formation of terms is divided into several types, and this leads to the structure of terms. They are as follows:

1. Suffixed;
2. Prefixed;
3. Postfixed;
4. Combination;
5. Compound;
6. Univerbation²⁰.

After linguistic researchers arrived at a stopping point, the process of analyzing linguistic terms began to be divided into types. E. Forian, based on the observations of Y. Obaran, analyzed the main types and groups of categorization in linguistic term formation:

- 1) lexical calque; 2) phraseological calque; 3) grammatical calque.

Based on the partial translation of the terms in the user interface, one of the terms in the Telegram mobile application is "**Защищенный контент**" ("Protected content") - a two-component complex that was translated on a semi-partial basis. In this case, the root of the term "защищенный" derives from the Russian language.

"**Добавить аккаунт**" in English is "add account", which is a half-root term and a two-component compound. It consists of two separate components that are combined to create a new meaning. The first component "добавить" means "add" and the second component "аккаунт" means "account", and they are joined by a linking morpheme. This type of compound is called a syntactic compound, which involves combining two or more lexemes with syntactic operations, such as inflection or derivation, rather than by simple juxtaposition. The term "add account" is commonly used in software applications to refer to the action of creating a new account.

Among the cascade menu terms in the "Telegram" mobile application, terms such as "*new group*" - "*создать группу*", "*new channel*" - "*создать канал*", and "*people nearby*" - "*люди рядом*" are also considered two-component terms. There are also multi-component terms among them, such as "*new secret chat*" - "*создать секретный чат*", which can be considered as belonging to the phraseological term category.

The words of the soft Russian language are formed from the following stages - they are composed of Indo-European, Common Slavic, East Slavic, and native Russian words, and are considered cognates due to their proximity to these languages.

To know that the terminologies are in the Russian language, the online etymological dictionaries of the Russian language of G.A. Krilov, A.V. Semyonov, L.V. Uspenskiy, Maks Fasmer, N.M. Shanskiy and also the online explanatory

²⁰ Волинец Т. – Современный русский язык // способы словообразования УСР // Минск, 2003. – С.5-10.

dictionaries of the Russian language by V.I. Dalya, T.F. Yefremov, S.I. Ojegov, D.N. Ushakov were extensively used on the website <https://lexicography.online>.

It should be added that due to the fact that applications are created in English and most terms are translated from English into Russian, as well as the fact that there is less use of the Russian language, the analysis of terms in mobile applications was not based on examining the menus, but rather on studying the specific Russian terms selected for each menu separately.

The first pure Russian language term in the "Telegram" mobile app is "**ночной**" which is actually a derivative word in the form of an adjective, and "**ночь**" is the basic form of the word, with "-ой" being a suffix indicating an adjective. When the suffix is added, the process of vowel assimilation occurs in the word. This term "**ночь**" can have various meanings in the form of "night" and if it refers to a part of the day, i.e. "after the sun sets," it is a pure Russian word, but if it refers to "one night," it is considered borrowed from another language. Therefore, it is necessary to be cautious when using this term in both meanings, as it can be either a pure Russian or a borrowed word.

"Секретный" - although this term is used as part of a three-component combination, when analyzed separately, it is a simple loanword, based on the French language, even though it has been adapted into the Russian language through the addition of a suffix.

The basic form of the term "**Недавно**" is "**давно**" which belongs to the Slavic language group. The simple word is formed by adding the prefix to it. In dictionaries, it is identified as belonging to the Turkic language group and is given meanings such as "a little time ago" and "recently".

In Russian, when pronouncing loanwords and foreign words, as well as in the pronunciation of native Russian words, sound changes (combinatorial changes) are observed to match the sounds of the language. These changes include accommodation, assimilation, epenthesis, and others. Pronunciation of the letter "o" as "a" and the letter "r" as "b" is a common occurrence in Russian. Such phenomena are considered natural in the Russian language.

The third paragraph of this chapter indicates that Russian is a rich language compared to English, as even when English terms used in mobile applications are translated into Russian, they are still used in their original form in Russian language software, indicating a significant influence of the Russian language. The search for original Russian words (исконное русское слова) is not a difficult task. Old sources related to the Russian language have also been digitized and placed on a single platform. The analysis of whether terminologies have been translated from English or adapted to Russian was conducted based on these sources. As for the results, linguists have expressed various opinions, with some stating that 80-90% of words in software are in original Russian form, while others suggest it to be around 70%. This slight discrepancy in findings was discovered during the research.

When analyzing the structure and usage of modern Russian terminologies, a number of language experts' opinions were taken into consideration. Based on the

rules given for adapting original Russian words to modern Russian and translating them into foreign languages, the terminologies were selected and analyzed.

In the third section of the dissertation titled **"Translation and lexicographic analysis of android operating system mobile application (AOSMA) terminology into Uzbek"**, the phonetics and pronunciation of AOSMA terminology directly translated into Uzbek are analyzed, as well as the usage and validity of AOSMA terminology translated into our language. Additionally, the issues related to the lexicographic analysis of mobile application terminology have also been researched.

In this section, the usage and validity of translated and native mobile application terms are studied separately. The terms in this section have been analyzed using various sources such as the "Contemporary Uzbek Literary Language" textbook by Uzbek linguists R. Sayfullayeva, B. Mengliyev, G. Boqiyeva, M. Qurbonova, Z. Yunusova, and M. Abuzalova, B. Mengliyev's "Contemporary Uzbek Language" textbook and articles on creating language corpora, M. Umarxo'jayev's "General Linguistics" textbook, as well as multi-lingual online and mobile application dictionaries that provide translations of terms used in the field of study. The translations of terms used in mobile applications have been examined and analyzed with the help of these resources.

If an analysis is carried out of the English and Russian terminology of the 4 selected mobile applications ("Payme", "Telegram", "Google Chrome", "Yandex.Taxi"), in this section, an analysis has been carried out on the translation of these terms into Uzbek, as well as their usage.

The direct acquisition of lexemes from another language is one of the methods used by Uzbek lexicographic sources. Lexemes are directly borrowed from Tajik, Arabic, Russian, and European languages. Nowadays, the process of borrowing English words into Uzbek is becoming more and more common. English loanwords can be borrowed through imitation, by using English names for various products or by incorporating new lexemes from the English language. For instance, the names of the mobile applications studied in the research ("Yandex.taxi", "Telegram", "Payme", "Google chrome") are good examples of this phenomenon, and we do not modify or replace the names of these lexemes in our analysis.

When analyzing the Uzbek terminology of the mobile applications "Yandex.taxi", "Telegram", "Payme", and "Google Chrome", it is possible to realize that they have been derived from the same terms used in the applications themselves. Before analyzing the terms, it is necessary to look at the etymology of the words because the analysis of the terms based on their phonetics and pronunciation could be related to their respective linguistic families. In this regard, it would be useful to refer to Sh. Rahmatullayev's three-volume "Etymological Dictionary of the Uzbek Language" as a reliable source.

If we analyze each of the terms used in these four mobile applications one by one, we need to start by analyzing the mobile application names. In the above paragraphs, the genetic and semantic characteristics of the terms "Yandex.taxi", "Telegram", "Payme", and "Google chrome" were studied in English and Russian

languages, and now a brief description is given of their pronunciation and meaning in Uzbek.

The term "**Payme**" is actually a combination of words that should be translated as a command in the form of a phrase, "pay me," but developers created a mobile application for payment services by using this phrase as a single, complete name. As a result, this name entered our language as it is, and there is no corresponding term to this combination of words. When it comes to the meaning of this term, it is formed from the addition of English words and its English pronunciation transcription is given as [peɪmi:], with the second part "me" written in small letters and in italics. However, in Uzbek language, it can be pronounced as [peɪmi], as there are no diacritical marks or diphthongs in the pronunciation. In Uzbek language, this term stays true to its original meaning, as it is considered as a name given to this application. In this case, there is no ambiguity with the Uzbek word "**pay**," and its genetic characteristics are not the same.

If we analyze the term "**Google Chrome**," we can see that the word "Google" doesn't have much meaning in and of itself, and it simply takes the name of a large company that acquired this word as its name in the last decades of the previous century. In terms of pronunciation, we tend to say this term as "gugil," but its written form in Uzbek etymological or orthographic dictionaries has not yet been recorded. This term can also be written as "Google" in writing, but in terms of pronunciation, it goes through several changes. In particular, the two "o" letters in English are pronounced with a long "u" sound in English, and the final "e" is not pronounced according to the rules of English pronunciation, resulting in the pronunciation of [gu:g(ə)l]. Therefore, in Uzbek, the term should be pronounced as "gugl," as it reflects the pronunciation of the term in its original form. When pronouncing "gugl," there may be changes in the position of the sounds, leading to the occurrence of an epenthesis phenomenon, where a sound is inserted within the word, and it is possible to add an [i] sound.

If we analyze the term "**Chrome**", it has a metal meaning, and in Uzbek it is created as "xrom" and translated in English-Uzbek dictionaries as "xrom". Therefore, since both words represent the name of a single program, in the Uzbek language it is written as "google chrome" in accordance with the purpose of naming the program. However, it is pronounced as [gugl krom].

The meaning of the term "**Yandex**" is not given in a comprehensible way, but it is included in the series of words that have been coined specifically because of the fame of this company's name. What is interesting is that this name was thought up by Russian programmers and is written in Russian as "Яндекс" and pronounced in English with a special emphasis on the rules of pronunciation. In fact, the letter "e" should be pronounced as [e] in words with an open syllable, but they have learned to pronounce it as [jandeks]. In Uzbek orthography, it is written as "yandex", but the pronunciation causes a change in the vowel sound, so it is pronounced with the letter "x" as in English, giving the sound as [yandeks].

The "**Telegram**" mobile application is considered a program created for the Android operating system, which is widely used in our country. The Russian translation of the word "Telegram" is given as "телеграмма" and this word is also

translated as "телеграмма" in the "English-Uzbek dictionary" book written by S. Nazarov, F. Nazarova, N. Adizova, and D. Poltayeva.²¹ However, users of this application do not pronounce the name according to the given translation. Despite the fact that the name of the application is "Telegram", it is pronounced differently because its actual meaning was not taken into account. Therefore, both the spelling and pronunciation of the name remain unchanged in the Uzbek language.

In this section, solutions to some issues related to the lexicography of Uzbek language terms in mobile applications for Android operating system are provided. The lexicon of Uzbek terms in mobile applications such as "Yandex.taxi", "Telegram", "Payme", "Google Chrome", as well as the methods of their translation in dictionaries and the issues of their lexicographic treatment have been investigated in the study.

It should be emphasized that scholars in the field of lexicography and translation have achieved significant achievements. Philological dictionaries show that dictionaries can be divided into monolingual, bilingual, and multilingual dictionaries. In bilingual dictionaries, words and phrases in one language are translated into another language. That is why such dictionaries are called translation dictionaries²².

It can be exemplified by the "English-Uzbek and Uzbek-English Dictionary" created by Sh.Butayev and A.Irisqulov in two languages (bilingual dictionaries) among the two-language dictionaries.

In addition to bilingual dictionaries, there are also multilingual dictionaries available, containing words and phrases from more than two languages. For example, M.I. Umarkhojayev and K.N. Nazarov's "German-Russian-Uzbek phraseological dictionary" and the "ALTAIIM" lexicography and translation research center established under the leadership of M.I. Umarkhojayev at the Andijan State Institute of Foreign Languages provide translations of terms used in various fields that are suitable for online and mobile applications. These dictionaries are strong evidence of our previous argument about the importance of lexicography and translation in the education sector.

It is necessary to design and structure a terminological dictionary based on lexicographic principles to fully meet the needs of those who use it. The creation of a terminological dictionary takes into account the scientific knowledge of the chosen field, the overall language proficiency of the users, their specific language needs for the particular purpose, and their lexicographic competence.

Glossaries have the following micro-structure: (1) headword; (2) phonetic description; (3) grammatical characteristics; (4) semantic definition of the headword; (5) collocations of the headword; (6) word formation patterns of the headword; (7) etymological information; (8) illustrative examples; (9) lexicographic commentary; (10) encyclopedic information; (11) cross-references.

The macrostructure of a dictionary refers to its overall organization and structure. The creators of a dictionary typically include sections such as "Entry

²¹ S.Nazarov, F.Nazarova, N.Adizova, D.Poltayeva - English-uzbek dictionary – Toshkent 2013, B.699

²² <https://arxiv.uz/uz/documents/referatlar/tilshunoslik/leksikografiya-6>

Word," "Alphabetical Organization," "Ideographic Organization," "Right Side of the Dictionary," "Left Side of the Dictionary," and "Guide Words." V. Dubichinskiy is one such dictionary maker who includes these sections in his dictionaries²³.

Sherba is considered as the first linguist who firmly established lexicography as a separate field of study with its own subject of research, scientific and methodological principles, theoretical issues, and a place among other branches of knowledge. However, Dubichinskiy's definition ("lexicography is the science of creating, researching, and using dictionaries") remains the most accepted explanation.²⁴

From the above ideas, we can understand that the terms mega, macro, and micro structures are used in dictionaries. Mega structure consists of macro and micro structures, and they are further divided into different types.

According to the use of terms in multilingual dictionaries, they are divided into active and passive categories. Active translation is considered to be constantly used and utilized in speech processes. Passive translation, on the other hand, is only learned from the dictionary and used in daily conditions. The most interesting aspect is that mobile application terms are used in both active and passive forms, as the search system of applications such as "Google Chrome" is frequently used to search for and download information. Therefore, users always come across these frequently used terms and are forced to communicate through them.

Having familiarized ourselves with all the tasks, types, and creation methods related to dictionary making, it is possible to create a mobile application in Uzbek containing the terminologies of the three-language dictionary (English-Russian-Uzbek) that needs to be created by a researcher.

If we were to list the Uzbek terms used in the "Google Chrome" mobile application, first and foremost, the Uzbek terms in the cascading menu of the application are explained and given as comments.

“Sozlamalar” – (noun) *eng*: “settings” *rus*: “настройки”. **Description:** It is used to correct actions that are convenient for the user in the mobile application.

“Yuklanmalar” – (noun) *eng*: “downloads”, *rus*: “загрузки”. **Description:** A menu that appears when the user saves information from internet websites.

“Bukmarklar” – (noun) *br.word* – *eng*: “bookmarks”, *rus*: “закладки”. **Description:** A label or symbol on a regularly used and visible location, which serves as a menu or shortcut created and chosen by the user.

“Qidiruv tizimi” – (noun phr) - *eng*: “search engine”, *rus*: “поисковая система”. **Description:** A system for searching and cataloging information on the internet.

The use of the term "theme" in the Uzbek translation of the term on the "Google Chrome" mobile application is technically correct, but it would be more appropriate to use another Uzbek term that is commonly used in the same context. This is because the term "theme" has different meanings in different contexts and

²³ Дубичинский В.В. Теоретическая и практическая лексикография. – Вена-Харков, 1998. – 160 с. – С.34

²⁴ Щерба Л. Языковая система и речевая деятельность. – 2-е изд., стереотип. – М.: Едиториал УРСС, 2004. – С. 308

languages. From a lexical-semantic point of view, the term "theme" is used in the "Cambridge Dictionary" online as *"the main subject of a book, film or conversation" and also in the sense of "musical style"*²⁵.

"Sinxronlash" – (verb) *calque eng: "synchronization", rus: "синхронизация"*. **Description:** The process of relating two or more events or processes that are changing or evolving over time.

Taking into account the aforementioned inconsistency, it is appropriate to replace the term "mavzu" with a suitable term, such as "tizim ko'rinishi" (system appearance). Similarly, the term "chat mavzusi" (chat theme) is used in the chat settings menu of the "Telegram" mobile application. If this term is also changed to "chat ko'rinishi" (chat appearance), it would be more understandable for the user.

In mobile applications, compound terms are often used for performing actions. This idea has been suggested before because it is known that in English, action names or verb forms can be expressed in the form of "to + infinitive" or "V + ing", and they need to be given in forms such as "to search web-address" or "to find in page". If the preposition "to" is omitted in such cases, the compound "find in page" would be translated as an imperative statement and should be translated as "sahifadan qidiring" (search in the page) in the Uzbek language. However, as an exception, in translating mobile application terms, this form has been bypassed, and compound terms that convey the meaning of the action name in Uzbek are used even if the "to + infinitive" form is not used.

The above situation can be exemplified by the use of compound terms such as *"ma'lumotlardan foydalanish"*, *"xotiradan foydalanish"*, *"avtomatik yuklab olish"* in mobile applications.

In the process of creating dictionaries, it is essential to pay attention to their microstructure in the first place, as it forms the basis for revealing all aspects of the defined term, including phonetics, semantics, and grammar. Without these elements, it is impossible to create a comprehensive dictionary. After all the terms are gathered, serious attention is paid to their macrostructure in order to shape the dictionaries.

Until now, no work has been done to create a three-language dictionary with Uzbek as the main language for mobile applications. It is true that there are explanatory dictionaries designed for information and communication technologies, but this area should not be overlooked. Mobile applications are becoming an integral part of our daily lives, and unless linguists and lexicographers take this issue seriously, the terminology related to mobile applications in Uzbek may be left behind without being standardized.

CONCLUSION

Based on the theoretical ideas and analyses presented in the dissertation, the following general conclusions were reached:

1. By comparing the terminology of mobile applications in English, Russian, and Uzbek with the terminology of Android operating system mobile applications

²⁵ <https://dictionary.cambridge.org/dictionary/english/theme>

(AOSMA), it is possible to identify both general and specific features of each terminological system, and also to deeply understand all three terminological systems. Our research demonstrated that the Android operating system mobile application terminology is comprised of several thematic and content-based groups, making it a well-organized system.

2. The complexity that arises in the process of comparing terminological activities not only highlights the uniqueness of individual languages, but also the relationship of terminology to the specific position within the national language system.

3. Android operating system mobile application (AOSMA) terminology consists mainly of nouns and adjectives based on their morphological characteristics. In every language, the Android operating system mobile application (AOSMA) terminology system has a wide range of affixation, indicating productivity. The use of prefixes in the formation of AOSMA terminology also plays an active role in the terminology structure.

4. In the formation of the lexico-semantic structure of Android operating system mobile application (AOSMA) terminology in Uzbek, there is a presence of metaphor and metonymy phenomena. The metonymy phenomenon is less common than metaphor. Metaphor and metonymy in terminology formation are related to extralinguistic phenomena, and are mainly characterized by their connection to the referential word stem.

5. Like in all terminology systems, the number of terms formed syntactically in the Android operating system mobile application (AOSMA) terminology is quite significant compared to the single-word terms. Terms formed syntactically, as in all languages, are important nominative sources in Uzbek as well. In English, Russian, and Uzbek languages, AOSMA terminology often consists of two-component compound terms in the form of noun+noun, where a conversion phenomenon is present.

6. As a result of the intense development of Android operating system mobile applications and their active use in various areas of our lives, various experts in different fields have introduced different terms and used them in various forms. This has led to a widespread use of synonymous relations in the same field.

7. More than 836 Android operating system mobile application terms actively used in English have been identified as 47% equivalent, 33% borrowed, 10% explanatory, and 10.22% transliterated into Uzbek.

8. In Russian, like in other languages, the process of adapting lexemes that have no equivalent and cannot be translated, from a genetic point of view, is carried out in various ways. This includes adapting their spelling and pronunciation to the Russian lexicon, as well as adhering to some rules of spelling that have been abandoned due to certain norms.

9. The analysis of the English, Russian, and Uzbek terminology used in Android operating system mobile applications resulted in the categorization of the terms according to their topical style, comparing and contrasting them with each other and describing them based on their definition in the selection process. The topical groups identified were: "application launcher terms in the entry section",

"user interface terms in the main (basic) menu", "software tool terms in the cascade menu", and "software tool terms in the internal (settings) menu".

10. The number of Uzbek translation variants of existing Android operating system mobile application (AOSMA) terms in dictionaries has increased, but not all of them can be considered as consistent translation variants. Inconsistent translation situations also occur in mobile applications where the translations may not correspond to each other. When translating terms from English to Uzbek, word-to-word translation is often used, especially in mobile applications.

11. The validity of words through translation is considered in trilingual dictionaries. At the same time, the linguistic characteristics specific to the systematized languages of the terminological units of Android operating system mobile applications are reflected through translation. When selecting terms for the Android operating system mobile application dictionary, attention should be paid to contextual terms that help to understand the topic, as well as their practical importance, and their frequency of use. The terminological dictionary used in translation should not only contain source language words and their translation equivalents but also other synonymous words related to the concept of the term.

12. When creating an English-Russian-Uzbek dictionary of Android operating system mobile application (AOSMA) terminology, it is necessary to take into account all of its characteristics. Such dictionaries serve as a reference tool for the Android operating system mobile application field, reflecting a specific system of concepts and gathering active terms for the scientific and practical activities of specialists.

**НАУЧНЫЙ СОВЕТ PhD.03/29.12.2022.Fil.156.01 ПО
ПРИСУЖДЕНИЮ УЧЕНЫХ СТЕПЕНЕЙ ПРИ АНДИЖАНСКИЙ
ГОСУДАРСТВЕННЫЙ ИНСТИТУТ ИНОСТРАННЫХ ЯЗЫКОВ**

**НАВОИЙСКИЙ ГОСУДАРСТВЕННЫЙ ПЕДАГОГИЧЕСКИЙ
ИНСТИТУТ**

МАХАММАДОВ БОБИР ИСАН УГЛИ

**ТЕРМИНЫ МОБИЛЬНЫХ ПРИЛОЖЕНИЙ ОПЕРАЦИОННОЙ
СИСТЕМЫ ANDROID НА УЗБЕКСКОМ, РУССКОМ И
АНГЛИЙСКОМ ЯЗЫКАХ**

**10.00.06 – Сравнительное литературоведение,
сопоставительное языкознание и переводоведение**

АВТОРЕФЕРАТ
диссертации доктора философии (PhD) по ФИЛОЛОГИЧЕСКИМ НАУКАМ

Андижан – 2023

Диссертация выполнена в Навоийском государственном педагогическом институте.
Автореферат диссертации на трех языках (узбекском, русском и английском (резюме)) размещена на официальном веб-сайте Анджаанского государственного института иностранных языков www.adchti.uz, а также на портале информации и образования "ZiyoNet" по адресу www.zivonet.uz.

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имени Мирзо Улутбека**

С диссертацией можно ознакомиться в Информационно-ресурсном центре Андиянского государственного института иностранных языков (зарегистрирован под номером 9). (Адрес: 170100, г. Андиян, улица Бобуршок, 5. Телефон: (99874) 223-42-76; факс: (99874) 223-42-76)

Автореферат диссертации разослан « 11 » 07 2023 года
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ВВЕДЕНИЕ (аннотация докторской диссертации (PhD))

Цель исследования - заключается в выявлении и описании лингвистических особенностей терминологии мобильных приложений операционной системы Android на английском, русском и узбекском языках.

В качестве объекта исследования были выбраны термины на английском, русском и узбекском языках, используемые в мобильных приложениях "**Google Chrome**", "**Telegram**", "**Yandex.Taxi**" и "**Payme**".

Научная новизна исследования заключается в следующем:

были определены семантические группы терминов мобильных приложений операционной системы Android на английском, русском и узбекском языках, и были обоснованы лексико-семантические особенности терминов в составе группы;

было выявлено, что при образовании новых семантических оттенков в связи с появлением новых лексических связей между значениями полифункциональных терминов, использованных в мобильных приложениях на английском языке, наблюдается особенность омонимии;

открыты особенности парадигматической структуры терминов мобильных приложений операционной системы Android на английском, русском и узбекском языках и основаны морфемные и семантические производные характеристики каждого термина в каждом языке;

были определены синонимические и антонимические отношения между терминами мобильных приложений операционной системы Android на английском, русском и узбекском языках и были представлены межъязыковые интегральные и дифференциальные схемы.

Внедрение результатов исследования. Результаты научных исследований и практические предложения, основанные на выдаче терминологии мобильных приложений операционной системы Android на узбекском, русском и английском языках:

На основе научных результатов и практических предложений, связанных с предоставлением терминов мобильных приложений операционной системы Android на узбекском, русском и английском языках, и на основе лексикографической обработки в микроструктуре терминов, содержащихся в словаре, а также анализа предоставления терминов в приложениях мобильных приложений на каждом экране, т.е. для разделения терминов в основном, каскадном меню, термины внутри внутреннего меню (настройки), выделены ключевые особенности. В рамках инновационного проекта, осуществляемого на основе № IL-402104474 «Создание электронной платформы bolalaradabiyoti.uz и ее мобильного приложения», утвержденного Университетом узбекского языка и литературы имени Алишера Навои в Ташкенте на 2021-2023 годы. В результате было достигнуто единство выбора терминов, необходимых для использования на электронной платформе bolalaradabiyoti.uz и ее мобильном приложении.

Операционная система Android является основным языком программирования для мобильных приложений и электронных платформ,

которые создаются с использованием определенных языков программирования, таких как "java", "python" и "php". Термины в этих языках обычно записываются на английском языке, и основным языком для мобильных приложений и электронных платформ является английский язык. Эти термины переводятся на русский и узбекский языки и предоставляются пользователям в виде "входа (основной/название приложения)", "главного (интерфейс пользователя)" и "внутреннего и каскадного (программного средства) меню" в соответствии с выводами, сделанными Ташкентским государственным университетом узбекского языка и литературы имени Алишера Навои в рамках практического проекта, созданного в 2020-2022 годах под номером PZ-2020042022 "Электронная лингводидактическая платформа для турецких языков". В результате, одним из основных справочных материалов для создания терминов в каскадном меню турецкой лингводидактической электронной платформы на узбекском языке стал упомянутый проект. (Информационное сообщение № 01/4-3655 от 27 декабря 2022 года Ташкентского государственного университета узбекского языка и литературы имени Алишера Навои).

Проблемы и решения в исследованиях исследований и рекомендации по использованию узбекских терминов, предоставленных на ежедневной основе в мобильных приложениях, были использованы в телерадиовещании Навоийской области, таких как "Assalom, yangi kun", "Til-millat ko'zgusi", "Dolzarb mavzu". (Информационное письмо № 01-10/179 от 30 ноября 2022 года Национальной телерадиокомпании Узбекистана). Целью было привлечение внимания молодежи к проблемам повседневного использования терминов, используемых в мобильных приложениях, таких как "Google Chrome", "Telegram", "Yandex.Taxi", "Payme", и предоставление информации об их этимологии и использовании, а также о том, что большинство терминов в мобильных приложениях повторяются, и использование узбекского языка в терминах в мобильных приложениях представляет собой некоторые трудности.

Структура и объем диссертации. Диссертация состоит из введения, трех глав, заключения и списка использованной литературы. Общий объем диссертации 169 страниц

E'LON QILINGAN ISHLAR RO'YXATI
LIST OF PUBLISHED WORKS
СПИСОК ОПУБЛИКОВАННЫХ РАБОТ

I bo'lim (part I; часть I)

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