

The Process of Creating a Croatian Gamification Glossary

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ABSTRACT

The paper analyses the process of creating a Croatian gamification glossary. Gamification is a relatively new term, and many papers about its implementation and effects are written yearly. Gamification is closely linked to video games, from which it borrows many elements. The evolution of video games as a medium leads to the development of gamification as a process. New terms denoting gamification elements and game types constantly appear. Most of these new terms are not yet defined in lexicographic sources, and some are not translated into other languages, including Croatian. That was the motivation for the creation of the Croatian gamification glossary. It records existing terms and definitions and translates and defines new terms. Creating a glossary is broken down into steps that explain how terms have been selected, categorized, translated, and defined using reliable sources and the corpus created by the author, and how the Glossary is published online. The process of creating the gamification corpus and translating terms is explained in detail. The difficult-to-translate terms and definitions are extracted and highlighted for future research.

Key words: corpus, gamification, glossary creation, term translation, video game terms

Introduction

Gamification is a process in which many different game elements are implemented into situations that are not considered game-like by nature. Implementing game elements makes some activities more fun and attractive¹. Gamification is usually mentioned in the context of other related terms such as e-learning, video games, gamification elements, etc. One of the ways to integrate gamification into different situations is through game elements (in this paper gamification elements). Gamification elements are implemented within systems used for work, applications, or processes. Gamification elements that are usually mentioned are scoring, levels, virtual awards (e.g., badges), leaderboards, timelimit, avatars, etc.² Applications for learning languages such as Duolingo and Memrise, fitness applications such as WeFitter, and shopping applications such as Woot are well-known examples of how gamification elements can be integrated within many different applications or systems. Even if these applications or systems do not need to use gamification for their core functionalities, gamification can still help improve the experience since it can motivate users to use the applications or the system to get more points, awards, or to get to the next level.³ Gamification can also be achieved through educa-

tional video games. The process of learning through video games is called game-based learning.⁴ Gamification elements can also be analyzed within educational video games because certain games contain leaderboards, avatars, virtual awards, etc. Some examples of different educational games with varying elements of gamification can be seen on sites of the dictionary Merriam-Webster⁵, Encyclopedia Britannica⁶, museum Science Museum UK⁷, etc. More about gamification websites for museums, archives, and libraries see in the paper *Usporedna analiza igrifikacijskih elemenata u arhivima i drugim informacijskim ustanovama*⁸ and more about gamification on lexicographic websites in the paper Gamification in E-Lexicography⁹.

Gamification is a relatively new term in science, and the number of papers about gamification has increased in the last few years. In the *Scopus* database the number of scientific papers that contain the keyword *gamification* is analyzed. There are 7 768 papers that contain the keyword *gamification*.¹⁰ Most of these papers were published in the last three years (not counting 2022). Each year the number of papers on gamification increases (Table 1). Despite the increase in the number of papers about gamification, only a few papers on gamification were written in Croatian. There is also no Croatian glossary of gamifica-

TABLE 1NUMBER OF PAPERS IN SCOPUS WITH THE KEYWORD *GAMIFICATION* (ACCESSED 21 JUNE 2022)

year	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
no. papers	504	1 371	1 202	1 168	893	786	674	514	362	214	65	15

tion terminology, and general video games glossaries are usually outdated and small.^{11, 12}

Goals

This paper aims to analyze the existing gamification and video game terminology. Since gamification takes many terms from video games, the terminologies of the two fields are closely connected. With the evolution of video games as medium new terms are also coined because new game types and gamification elements are continuously created.¹³ It usually takes time for these new terms to be included in dictionaries, especially as they are primarily used in jargon and colloquial speech. Video game terms are rarely translated into other languages. This results in many untranslated terms. These terms are usually accepted by younger generations (generation Z) in their speech. They often do not translate these terms nor accept translations.¹⁴ Thus, it would be useful if there was a glossary of Croatian gamification terms (both belonging to the standard language and jargon terms) that would record terms related to gamification, and to some extent, video games, with definitions and translations. This glossary would help its users understand new terminology and further research of gamification and video game terminology. Having that in mind, the main goal of this paper is

- to describe and analyze the creation process of an online Croatian glossary of gamification and video game terminology that would be publicly available;
- to analyze terminology used in many online papers and articles and define these additional goals:
 - compilation of a Croatian gamification corpus;
 - extraction of terms that are difficult to translate into Croatian or define precisely.

The following hypothesis will be tested in this paper:

H: There are more gamification and video game terms that can be directly translated into Croatian than terms that cannot be translated or are very difficult to translate.

Methodology

The analysis is based on the following steps that have to be taken to make the glossary creation process successful:

- extract gamification terms;
- divide terms into categories;
- define glossary microstructure (fields of the glossary connected with each term);
- select appropriate sources for defining and translating terms;

- extract terms that are difficult to translate or define;
- choose the appropriate technology for creating and publishing the glossary online.

Extracting gamification terms

In Lovrenčić et al.¹⁵ 57 gamification elements were selected, categorized, translated, and explained. In that paper, terms extracted from other scientific papers, e.g. Deterding et al.¹⁶, Werbach and Hunter¹⁷, Marczewski¹⁸, Marczewski¹⁹, Marczewski²⁰, and Betts²¹ were analyzed. In this paper and the glossary composed by the author on which the paper is based, in addition to those terms, terms from other papers, e.g., Jagušć²³, Figueroa-Flores²⁴, and websites such as Merriam-Webster, Webopedia, techopedia, and wiki pages are analyzed. Some terms relating to new game types and gamification elements were found on gaming websites such as IGN, GameSpot, etc.

Dividing terms into categories

The terms were divided into different categories to make the glossary more accessible and user-friendly. Ashaari et al.²⁵ established categories of gamification elements depending on whether they were connected to dynamics, mechanics, or game design. Lovrenčić et al.¹⁵ categorized terms as general terms connected with gamification, terms denoting gamification users, and terms associated with gamification elements (divided into those based on mechanics, components, and dynamics). The glossary compiled by the author divides gamification terms into general terms, gamification elements, and game types. General terms define a wide range of terms connected with gamification (e.g. game, gamification, e-learning, player), gamification elements contain elements from video games being used in gamified systems and educational video games (e.g. scoring, badges, leaderboards, etc.), and game type terms contain game genres (e.g. serious games, action games, educational games), subgenres (e.g. FPS, MOBA), and game types (e.g. crosswords, quizzes).

Defining the microstructure of the glossary

In creating any lexicographic work, it is essential to define the microstructure (structure of fields for the data that will be used to describe each term). The glossary microstructure consists of these fields: English term, Croatian term, definition, and source (Table 2). The glossary compilation process consists of these steps: 1. the English terms were extracted, 2. the English terms were defined, 3. the terms were translated into Croatian after consulting the available literature. While consulting the relevant

TABLE 2
THE TERM 'GAME'

Term	Translation into Croatian	Definition	Definition in Croatian	Source
game	igra	physical or mental activity which is considered fun and has one or multiple participants	fizička ili mentalna aktivnost koja se smatra zabavnom i u kojoj sudjeluje jedna ili više osoba	Merriam-Webster, 2007

literature, it was decided that the field source should also be added to the glossary microstructure. That would be especially useful for future research.

Selecting appropriate sources for defining and translating terms

The sources for defining many terms were online dictionaries, e.g., Merriam-Webster, Dictionary.com, and Webopedia. Some terms and term definitions were taken from scientific and professional papers. Some of these papers were written in Croatian, so some terms have already been translated into Croatian, e. g. competitive game (*najtefeljska igra*)²³ and dynamics (*dinamike*).¹⁵ Translation into Croatian for as yet untranslated terms could usually be done directly (e.g., Role Playing Games – *igre igranja uloga*, skill tree – *stablo igračevih vještina*). The corpus with gamification papers and websites was also used to find definitions and sources for certain terms (more about corpus compilation and usage in the section *Creating a demo version of a gamification corpus*).

Extract terms that are difficult to translate or define

For some terms, which did not have an existing translation and could not be directly translated, translation had to be made based on term definition and examples of term usage, which in some cases could be checked in the created corpus. Those terms were marked with an asterisk (*) so that the users know that this is still not an attested or possibly accurate translation or, in some cases, definition. This could also be useful for further research of terms that are difficult to translate into other languages or terms that have not yet been precisely defined. Most of the difficult-to-translate terms belong to the category game types defined in the second step. Some newer game genres and subgenres are difficult-to-translate and their names are usually used only in the original language, e.g. the genre name 'stealth games' has not been translated into Croatian and Croatian game portals like HCL usually still call them *stealth games*. In some examples from that portal, different authors had their translations depending on the game content because in some stealth games, the character is hidden in the dark (translated into Croatian as *čučanje u mraku*), and in others, the character kills opponents by sneaking behind them (translated into Croatian as *skrivanje i ubijanje u tišini*).²⁶ Kovač²⁷ probably had the most accurate translation for the whole genre. He used the term *igre s mehanikom šuljanja* (word-by-word translation into English would be 'games with sneaking mechanics')²⁷ so that these translations and the shorter term *igre šuljanja* were used in the glossary. Some subgenres usually get

their name from a movie or a game, e.g., Battle royale games got their name from the movie Battle royale, since the movie plot is similar to that of the games. That subgenre was then translated into Croatian as *kraljevska bitka* which corresponds to the translation of the movie.²⁸ Subgenre of action games 'metrovenia' which got its title based on the games Castlevania and Metroid could not be translated as the previous example because the term is a blend between the names of two games that were not translated into Croatian.²⁹ So there is no adequate translation into Croatian. Thus, the translation *metrovenija* is used in the glossary.

One of the more difficult terms to translate into Croatian is sandbox games, denoting a genre of games with large virtual worlds in which the player is allowed to complete goals in multiple ways. The name originates from a metaphor in which a child plays in the sandbox.³⁰ A possible translation into Croatian would be *igra u pješčaniku*. The term 'roguelike' was also difficult to translate because the term *rouge* does not have an exact equivalent in Croatian. It can be translated as *nevaljalac*, *lupež*, which does not make sense in the context of the game because the main characters in those games are usually not evil. Thus to translate this term correctly, the history of that game subgenre had to be studied. The term originated on newsgroups USENET in 1993 and was inspired by the game Rogue from 1990.³¹ Having that in mind, the translation for roguelike games used in the glossary is *igre rouge*.

Translation and definition of gamification elements can also be difficult, e.g., the term 'boss fight' was translated by Lovrenčić et al.¹⁵ as *završna borba* (back-translation into English would be 'final battle'). However, that translation does not correspond to the contemporary meaning of the term because stronger enemies (known as bosses) can appear at the end of the level or game but also at the beginning, middle, or any other part of the game or level. The term 'boss' itself is difficult to translate. The term originated because bosses were bosses of smaller enemies the player defeated before fighting them. However, this does not have to be the case in current games since boss characters can be beasts, random characters, etc.³² However, players are still using the term boss today because it has been used for a long time. In the glossary, the translation from Lovrenčić et al.¹⁵ is recorded, but the translation *borba sa šefom* as an alternative translation is added. Another interesting gamification element that has not been translated into Croatian is Easter eggs. Easter eggs are secrets that game developers leave in certain parts of the game. The origin of the term is based on a game for children in which they search for Easter eggs hidden in the yard or field.³³ Having that in mind, the translation used

in the glossary is the literal translation *uskrsna jaja* although there is no direct connection to Easter or eggs.

Choose the appropriate technology for creating and publishing the glossary online

The first idea in creating an online glossary was that in the future, many users could potentially easily edit its content without needing advanced IT skills. This was done not through a CMS system like WordPress but through a shared Google sheet. The data written in specific columns in Google sheets is then directly transferred to certain parts of the website. The webpage and Google sheets are connected using the JavaScript plugin Papa Parse.³⁴ The terms are separated into separate tables displayed through tabs within the webpage. Users can switch between tables easily by clicking the tabs on the top. Terms that have been separated in the previous step are marked with an asterisk. While glossary data is displayed in a table format, it is also browsable on small screen devices (e.g., mobile phones). The glossary is not finished and does not have a fully realized domain although its demo version is publicly available through GitHub pages^a. (Figure 1).

Creating a Demo Version of a Gamification Corpus

A demo version of the corpus was created using Sketch Engine.³⁵ The first version of the corpus contains 350 648 tokens, 269 949 words, and 33 documents. The corpus consists of texts written in Croatian because it was com-

pleted to create a Croatian glossary, e.g., to check if there are Croatian translations for a particular gamification term. The first step in Sketch Engine was to automatically collect texts on Croatian websites that contain words: gamification and gamification elements. After that, a manual check of all the websites was done and only reliable sources were kept in the corpus. In the end, only 10 webpages with texts about gamification were kept in the corpus. In the next step, scientific and professional papers were added to the corpus. These papers were found in databases Hrčak, Google Scholar, and Dabar. Since Sketch Engine only displays the text of a document as one large paragraph, some of these papers that were in PDF format had to be converted to .TXT and certain parts of the document had to be removed, such as header, footer, footnotes, and graphical elements that can create breaks in the main text. More about preparing texts for a corpus, see in Marković and Mihaljević.³⁵ 23 papers have been added to the corpus. Sketch Engine automatically generates the corpus and creates word sketches. The word sketches can be used to see relationships between terms which can help in defining terms and differentiating between them (Figure 2).

Concordance was the option of Sketch Engine that was used the most in corpus analysis, as possible translations for a term could be found. The concordance also shows the source of the text, so source attribution could be added to the glossary (Figure 3). Sketch Engine can also create a keyword list for single or multi-word terms, which can be easily browsed, and selected terms can be included in the glossary (Figure. 4).

Igirifikacijski elementi			
Naziv na engleskome	Prijevod na hrvatski	Značenje	Izvor
game design	dizajn igre	zadani ciljevi u igri te pravila, mogućnosti i izazovi unutar igre	Ashaari, Noraidah Sahari; Layth Khaleel, Firas; Tengku Wook, Tengku Siti Meriam; Amirah, Ismail. 2016. Gamification Elements for Learning Applications. <i>International Journal on Advanced Science, Engineering and Information Technology</i> 6/6. 868–874.
social element	društveni elementi	mogući odnosi koje igrači mogu imati u igri (igranje u paru ili skupini, razmjena virtualnih dobara). Pridonose osjećaju prijateljstva, stjecanju statusa te altruizmu.	Figueroa-Flores, Jorge F. 2015. Using Gamification to Enhance Second Language Learning. <i>Digital Education Review</i> 27/21. 32–54 Lovrenčić, Sandra; Plantak Vukovac, Dijana; Silbar, Barbara; Nahod, Bruno; Androoac, Darko; Šestak, Martina; Stapić, Zlatko. 2018. Igrifikacija: prema sistematizaciji termina na hrvatskom jeziku. <i>Računalne igre</i> 2018. Ur. Konecki, Mario; Schatten, Markus; Konecki, Mladen. Fakultet organizacije i informatike. Varaždin. 1–12.
player avatar	avatar igrača, utjelovljenje igrača	virtualna reprezentacija igrača s pomoću koje se bilježe bodovi i napredak u igri	Figueroa-Flores, Jorge F. 2015. Using Gamification to Enhance Second Language Learning. <i>Digital Education Review</i> 27/21. 32–54
scores, points	bodovi	brojčana vrijednost koja se dodjeljuje igraču za izvršavanje određenih aktivnosti	Figueroa-Flores, Jorge F. 2015. Using Gamification to Enhance Second Language Learning. <i>Digital Education Review</i> 27/21. 32–54

Fig. 1 Demo version of the online gamification glossary.

^a The glossary is available on: <https://borna12.github.io/igrifikacijski-pojmovnik/>.

WORD SKETCH

igrifikacija es noun 1,469x

n-koga-čega koncept koncepta igrifikacije element elemenata igrifikacije primjena primjene igrifikacije okvir konceptualnoga okvira igrifikacije korištenje korištenje igrifikacije pojam pojam igrifikacije primjer primjera igrifikacije dizajn dizajna igrifikacije u mekhanika mekhanike igrifikacije ugradnja pri ugradnji igrifikacije implementacija implementaciju igrifikacije princip principa igrifikacije u	koga-što koristiti koriste igrifikaciju primjenjivati primjenjuju igrifikaciju definirati definiiraju igrifikaciju kao određivati određuje igrifikaciju kao smatrati smatraju igrifikaciju	koordinacija crowdsourcing Igrifikacija i crowdsourcing gamifikacija nazivi gemifikacija, gamifikacija i igrifikacija masovan Korištenje igrifikacije i masovne podiške u učenju igra igre i igrifikacije učenje igrifikacija i učenje	subjekt_od primjenjivati igrifikacija većinom primjenjuje moći igrifikacija može pomagati igrifikacija svojim karakteristikama pomaže koristiti igrifikacija koristi predstavljati igrifikacija predstavlja podizati Igrifikacija podiže nemati sama igrifikacija nema odnositi Igrifikacija tj. gamification zapravo se odnosi upotrebljavati Igrifikacija se često upotrebljava u stvarati Igrifikacija stvara temeljiti gamification) – igrifikacija koja se temelji na trebati igrifikacija ne treba	kakav? prodirući prodiruće igrifikacije uspješan Za uspješnu igrifikaciju učinkovit učinkovita igrifikacija sam sama igrifikacija nema	u_genitivu-n mrežnik igrifikacije Mrežnika obrazovanje Igrifikacija obrazovanja sadržaj Igrifikacija sadržaja muzeja rječnik igrifikacije rječnika	glagol_Lispred_prijedloga u-s na-s za-s sa-s unutar-s od-s zbog-s kod-s prema-s	prijedlog-iza u igrifikacije u zbog igrifikacije zbog prema igrifikacije prema unutar koncepta igrifikacije unutar dobrih skupina na igrifikacije na od Razgraničenje igrifikacije od ostalih srodnih pojmova kod igrifikacije kod učenja sa igrifikacije s za igrifikacije za
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Fig. 2. Word sketch for igrifikacija (engl. gamification).

CONCORDANCE

simple boss fight • 1
2.85 per million tokens • 0.00029%

1 irb.hr ugu preuzeti ulogu čarobnog bića ili srednjovjekovnog ratnika. završna borba (engl. boss fight) – izrazito teški izazov na vrhuncu razine Napomena: Teška borba protiv suparnika

Fig. 3. Finding translation for the term boss fight in the corpus.

SINGLE-WORDS ✓ MULTI-WORD TERMS ✓

reference corpus: Croatian Web (hrWaC 2.2, RFTagger) (items: 18,219)

Word	Word	Word	Word	Word
1 igrifikacija	11 posttesto	21 encyclopedia	31 kviz	41 informalan
2 gamification	12 library	22 crowdsourcing	32 jednojezični	42 rječnik
3 igrifikacijski	13 ibid	23 najviše	33 jezikoslovlje	43 merriam-webster
4 mrežnik	14 duolingo	24 mihaljević	34 daktilografski	44 rječnički
5 posttest	15 learning	25 didaktički	35 memrise	45 language
6 predtest	16 dovlačenje	26 u-test	36 bodovanje	46 dictionaries
7 dictionary	17 croaticum	27 game-based	37 gitlab	47 hipoteza
8 igrificiran	18 deterding	28 natuknica	38 dogad	48 h5p
9 url	19 games	29 mann-whitneyjev	39 education	49 elements
10 pamtilica	20 hudeček	30 igrificirati	40 značka	50 frazem

Rows per page: 50 1–50 of 1,000 1 / 20

Fig. 4. Single keywords in the gamification corpus

TABLE 3
DIFFICULT TO TRANSLATE OR DEFINE TERMS

Term	Translation into Croatian	Definition	Definition in Croatian (explanation)	Source
XP, experience points (*)	<i>bodovne vještine</i>	a unit of measurement used to measure the progress of a player character through a character level	<i>mjerna jedinica koja se koristi za mjerenje napretka lika u igri</i>	Dictionary.com, 2015
boss fight (*)	<i>završna borba, borba protiv šefa</i>	unique enemies in video games that are normally tougher than normal enemies (players have come to expect a boss battle at the end of every level)	<i>borba protiv posebnoga protivnika kojega je teže pobijediti nego obične protivnike u igri (često se nalazi na kraju razine u igri)</i>	Agriogianis ³⁷
Easter Eggs (*)	<i>uskrсна jaja</i>	a hidden feature in a commercially released product (such as software) left by content creators	<i>tajne u videoigri ili programu koje su ciljano ostavili proizvođači videoigre</i>	Merriam Webster, 2021
loot shooters (*)	<i>pucanine za pljen</i>	shooter game (from the first or third person) that has the player collecting better and more useful weapons, ammo, and clothing from his vanquished foes which can be other players as well	<i>igre pucanja (iz prvoga ili trećega lica) u kojima je igraču cilj da prikupi što više virtualnih dobara (virtualnih valuta ili predmeta za pojačanje lika) koje dobiva pucajući na protivnike ili završavajući različite zadatke u igri koji također uključuju pucanje na protivnike ili druge igrače</i>	Stuart ³⁸
metroidvania (*)	<i>metrovenija</i>	a genre of action-adventure video games focused on guided non-linearity, utility-gated exploration, and character progression; the term is a portmanteau of the names of the video game series Metroid and Castlevania, with games in the genre borrowing from both series	<i>podžanr akcijskih igara kojemu je svojstveno nelinearno istraživanje prostora koje je povezano s postupnim unaprijeđenjem lika; naziv za ovaj tip igre dolazi iz igara Castlevania i Metroid koje su prve postavile temelje toga što je metrovenia tip igre</i>	Stegner ³⁹
casual game (*)	<i>ležerne igre, igre za mase</i>	a video game targeted at a mass market audience which generally involves simpler rules, shorter sessions, and requires less learned skill	<i>igre kojima je cilj da ih igraju mase te su time često vrlo jednostavne za igranje</i>	Boyes ⁴⁰
Real-time strategy games (RTS) (*)	<i>strategije u realnome vremenu</i>	strategic, tactical games in which the player's actions are not turn-based; in the game, the player has to use resources to build units and defeat an opponent who has to do the same	<i>strateški tip igre u kojemu akcije igrača nisu ograničene na poteze; u igri igrači najčešće moraju iskoristiti resurse, stvoriti bazu te pobijediti protivnika koji imaju isti cilj.</i>	Rouse ⁴¹
Multiplayer online battle arena (MOBA) (*)	<i>mrežna borbena arena</i>	a subtype of strategic games in which two teams of players compete on a specific map. Each player in the team controls one particular character with unique abilities. These abilities evolve through more playthroughs and become more helpful in leading players to victory	<i>podvrsta strateške igre u kojoj se dva igračka tima natječu na određenome terenu; svaki igrač u timu kontrolira jednog lika s jedinstvenim sposobnostima koje kroz igru razvija kako bi pridonio pobjedničkoj strategiji svojega tima</i>	Cannizzo and Ramirez ⁴²
Sandbox game (*)	<i>igra u pješčaničku</i>	games with large virtual worlds in which minimal character limitations are placed on the gamer, allowing the gamer to roam and change a virtual world at will	<i>igra s ogromnim virtualnim svijetom u kojoj je igraču dana sloboda da na više načina igranja ostvari ciljeve u igri</i>	Rouse ⁴³
battle royale (*)	<i>kraljevska bitka</i>	a game genre where players drop in on a large map and then fight until one person or squad is left alive. These games usually combine survival, exploration, and scavenging elements	<i>mrežni najecateljski tip igre u kojemu igrači sa svojim likom pokušavaju ubiti likove drugih igrača te preživjeti od istih igrača koji imaju isti cilj. Igra traje sve dok lik koji pripada jednome igraču ne ostane živ. Igre često kombiniraju elemente istraživanja te prikupljanja i uporabe resursa koji se nalaze na karti igre</i>	Computer Hope ⁴⁴ .

TABLE 4

TERMS THAT COULD NOT BE DIRECTLY TRANSLATED

Term	Translation into Croatian	Definition	Definition in Croatian	Source
crowdsourcing	<i>masovna podrška</i>	a process that involves a large group of dispersed participants contributing or producing goods or services	<i>postupak dobivanja potrebnih usluga, ideja ili podataka od neodređene skupine ljudi</i>	Bolje.hr ³⁶ .
HUD (heads-up display)	<i>statusna traka</i>	display area where players can see their character's vital statistics such as current health, bonus attributes, armor level, ammunition count, and more	<i>dio sučelja u igri koje obavještava igrača o statusu igre ili lika u igri</i>	Beal ⁴⁵ .
onboarding	<i>uključivanje</i>	a system of processes for integrating new participants into specific processes to make them productive as quickly as possible. Onboarding is used to keep the motivation of new participants, so they do not give up on achieving game or gamification goals	<i>mehanizam prilagodbe za stjecanje potrebnih vještina, kako bi novi sudionik napredovao do razine stručnjaka. Uključivanje se upotrebljava za očuvanje motivacije kako novi sudionik ne bi odustao od postizanja ciljeva igre/igrifikacije</i>	Lovrenčić, et al. ¹⁵ .
deathmatch (*)	<i>borba na smrt</i>	competitive games with objective to kill as many players in the game as possible while keeping yourself from being killed	<i>natjecateljski tip igre u kojemu igrači sa svojim likovima pokušavaju ubiti što više likova drugih igrača</i>	Beal ⁴⁶
point-and-click adventure	<i>avanture na pritisak miša, klik avanture</i>	games where the players typically control their character through a point and click interface using a computer mouse or a similar pointing device	<i>avanturističke igre koje se igraju s pomoću miša ili bilo koje druge vrste pokazivača</i>	Floss Manuals ⁴⁷
stealth game (*)	<i>stealth igra, igre šuljanja</i>	games which rely on player sneaking around enemies to avoid combat	<i>igre koje se temelje na tome da igrač sa svojim likom izbjegava sukob te se skriva i šulja kraj protivnika</i>	HCL.hr Gaming portal ²⁶
side-scroller (*)	<i>igre bočna kretanje</i>	games in which characters move from the left to the right side of a screen or reverse	<i>igre u kojima se lik u igri jedino miče na lijevu ili desnu stranu zaslona</i>	Rouse ⁴⁸
clicker games (*)	<i>klikeri, igre na pritisak</i>	video games in which the gameplay consists of the player performing simple actions such as clicking on the screen repeatedly	<i>igre koje se temelje na tome da igrač igra cijelu igru koristeći se više puta pritiskom miša ili zaslona na dodir</i>	Mark ⁴⁹
souls-like (*)	<i>igre souls</i>	a subgenre of action role-playing games known for high difficulty levels and emphasis on environmental storytelling (typically in a dark fantasy setting). It originated in the Dark Souls series of video games, the themes, and mechanics of which directly inspired several other games	<i>akcijske RPG igre koje karakteriziraju visoki stupanj težine i priča koja se često otkriva u okolini igre. Naziv su dobile na temelju Souls serijala igara koji su postavili temelje za ovaj žanr.</i>	Bitner ⁵⁰
roguelike (*)	<i>igre rouge</i>	RPG games that are categorized by exploring randomly generated areas, tactical combat, and only one life for a virtual character	<i>RPG igre koje često karakterizira istraživanje nasumično stvorenog prostora, taktička borba i samo jedan život za virtualnoga lika.</i>	Stegner ⁵¹

(*) Difficult to translate or define terms

Results

The main goal of this paper is to describe and analyze the process of creating a publicly available Croatian glossary of gamification. The glossary is still in a demo version, and new terms, translations, and definitions can be added or edited through Google sheet. The glossary currently has 133 entries with translations, definitions (sometimes explanations), and sources. Another goal was to pinpoint the terms that do not have a Croatian translation

or are difficult to translate. The glossary currently has 16 terms that are difficult to translate or define, out of which 10 are presented in Table 3 and six are given in Table 4. The created gamification corpus is available in the Sketch Engine system and can be shared with users interested in using it if they have a Sketch Engine account. This corpus can also be expanded and used in further gamification research.

The hypothesis that most terms connected to gamification or games can be directly translated into Croatian is confirmed, with 123 terms out of 133 terms being a direct translation. Most of the terms that cannot be directly translated are new terms that are connected to new game genres and subgenres (e.g., side-scroller had to be translated as *igre bočne kretnje*) or coined terms such as crowdsourcing (translated as *masovna podrška*)³⁶ that are usually not translated or use different words to explain the meaning (see Table 4 for more examples).

Conclusion

The paper presents the process of creating a demo version of a gamification glossary and corpus compiled by the author. The glossary and the corpus can be expanded and used in further research. The author analyses terms which are difficult to translate into Croatian. The paper opens the following questions:

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- should we translate into Croatian new terms related to video games since game titles are usually not translated, new terms appear based on recent game types, and some terms are difficult to translate;
- will users accept and use Croatian translations since players mostly use English terms in Croatian when talking about game-related subjects.

The approach in this paper is primarily descriptive. In the future, gamification terminology could be analyzed according to terminological principles.

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PROCES IZRAD E HRVATSKOGA IGRIFIKACIJSKOG POJMOVNIKA

SAŽETAK

Rad opisuje proces izrade igrifikacijskoga pojmovnika za hrvatski jezik. Igrifikacija je novi pojam te godišnje nastaje više radova koji se odnose na implementaciju i učinke igrifikacije. Igrifikacija je usko povezana s videoigrama od kojih preuzima mnoge elemente te razvoj videoigara kao medija dovodi i do razvoja igrifikacije kao procesa. Time dolazi do pojave novih naziva i pojmova povezanih s igrifikacijskim elementima i tipovima igara. Neki od novih naziva još nisu definirani u leksikografskim izvorima i većina nije prevedena na druge jezike uključujući i hrvatski. To je bio poticaj za izradu hrvatskoga igrifikacijskog pojmovnika. U pojmovniku se prikupljaju postojeći engleski nazivi s njihovim prijevodima na hrvatski i definicijama. Novi nazivi zapisuju se s novostvorenim prijevodima i definicijama. Proces izrade pojmovnika prikazan je s pomoću koraka koji objašnjavaju izbor naziva, njihovu kategorizaciju, prijevode, izbor pouzdanih izvora i korpusa koji pomažu pri njihovu definiranju te postupak objavljivanja pojmovnika na mreži kako bi bio javno dostupan. U radu se analizira i postupak izrade igrifikacijskoga korpusa te objašnjavaju razlozi za prevođenje određenih novih naziva. Nazivi koje je bilo teže prevesti ili definirati izdvojeni su za daljnja istraživanja.

