Unrestricted Original Language Resources

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Abstract: The unfoldingWord project exists in a new paradigm of Bible translation that has dual needs of access to content in Gateway Languages and the legal freedom to use, translate, and modify them to suit their context. The benefit of providing original language materials in the Gateway Languages is that it removes the barrier of needing to learn English to deepen one's understanding of the text. This paper investigates whether or not restricted texts provide the legal freedom that Church-Centric Bible Translation (CCBT) needs, whether "All Rights Reserved", Creative Commons NoDerivatives, or Creative Commons NonCommercial licenses. The only adequate public licenses for an original language resource to be translated are CC0, Creative Commons Attribution (CC BY), Creative Commons Attribution-ShareAlike (CC BY-SA), or possibly the Free Translate license.

Context of Church-Centric Bible Translation (CCBT)

The unfoldingWord project[1] operates in the context of an emerging paradigm of Bible translation referred to as CCBT.[2] A full exploration of this model may be found in several papers that are available online.[3] For the purpose of this paper, there are two critical shifts that must be noted in order to understand the rationale behind the resources being developed. The first shift relates to the lack of

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[1] The unfoldingWord project is a collaborative project launched by Distant Shores Media in 2013. Distant Shores Media is now known as unfoldingWord, https://unfoldingword.org/.

[2] https://www.ccbt.bible/. There is significant overlap with another emerging paradigm of theological education referred to as Church-Based Theological Education (CBTE). This paper focuses on resources that are directed at Bible translation, but most of them are applicable in the context of theological education.

[3] See Abraham (2017), Jore (2017a), and Jore (2017b). For a general overview, see https://www.ccbt.bible/an-emerging-paradigm/.

source and training material (including original language texts) in Gateway Languages (GL) and the second to licensing hindrances due to copyright restrictions.

Language Considerations for CCBT

A primary impediment in the path of recent Bible translation expansion has been the lack of training and source material in languages other than English. There are a few other languages of wider communication that also have a plethora of original language resources. However, students that do not have a command of these few languages are needlessly hindered in their pursuit of original language and theological knowledge.

In order to provide these resources to a wider audience, the unfoldingWord project has described the GL strategy and begun to implement it in conjunction with many organizations and Church networks. The strategy intends to provide unrestricted[4] original language and theological resources in every language identified as a GL. The GLs are the smallest set of languages required to provide one translation step into every Other Language (OL) in the world. Once the exegetical resources are available in the GLs, bilingual speakers of every OL in the world will have direct access to learn from and translate them into their own language.[5]

The task of CCBT and the GL strategy is to precipitate in each lingual church[6] the capacity to perpetuate knowledge of interpretation. This includes direct access to the original languages of the Bible and the fundamental principles of translation, hermeneutics and the cultural and historical context of the Bible. When a lingual church has this capacity, not completely in and of themselves, but in the interdependent manner supported by the global church and academia, they are well equipped to provide and preserve the Bible and theological resources in their language.

Licensing Considerations for CCBT[7]

The second shift relates to licensing restrictions that are encountered in the CCBT paradigm. To understand why copyright can cause unexpected consequences, it is helpful to understand that the majority of translators and quality checkers in CCBT are not associated with any Western organization. As a result, if licensing is only viewed from a Western and organizational context, it will fail to take into account the needs of the global church. In particular, there are three prominent licensing situations which do not meet the needs of the global church in terms of providing them the legal access they need to make use of the works so licensed.[8]

Limitations of Private Licenses for CCBT

Private licenses, which have been the key method of extending user's rights over copyrighted texts for the past hundred years, show their deficiencies in at least three distinct ways. The first complication is that it is difficult to enter into a legal contract with other people or organizations that exist in different countries and speak different languages than one's own. If the negotiation can be made, the

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[4] "Unrestricted" is used to indicate resources that are legally unencumbered (see following section) and freely accessible online.

[5] The description of the strategy may be found in Jore (2017a).

[6] A "lingual church" is "an element of the global church that is linguistically homogenous [sic]", Jore (2017b: 2).

[7] The authors are not lawyers and nothing in this paper should be construed as legal advice. The paper has been reviewed by a lawyer for accuracy.

[8] A summary is offered here, but see Jore (2017a) and Jore (2015) for a more comprehensive treatment.

legal and financial ramifications of doing this time and time again proves cost-prohibitive for most organizations and church networks that need the resources.

The second deficiency is that private licenses only apply to the parties involved. The licensor grants the licensee certain privileges that are not available to the broader public. The licensee does not have the freedom to extend their privileges to other people or organizations that they work with. In the CCBT context, this makes it difficult for licensees to enlist the help of volunteers that do not work for their same organization. The typical scenario where this occurs in Bible translation is that not everyone involved in a translation project has access to the same tools and resources because they are not all employed by the same organization.

Third, private licenses are typically revocable or subject to an expiration date. Although this is not a stipulation required of private licenses, it is one that is often employed. This not only creates overhead of renegotiating the contract but it means that organizations building software or derivative works have been locked into a relationship that they do not have the ability to renew on their own.[9] Although the private license may indicate a good relationship between the organizations upon its inception, it is impossible to forecast the nature of the relationship at some point in the future.

Limitations of NoDerivatives Clause for CCBT

To understand the complications raised by the Creative Commons NoDerivatives (ND) clause, it is useful to first refer to the Berne Convention for the Protection of Literary and Artistic Works, which is the standard international definition of what copyright is and how it functions. Article 8 notes:

> Authors of literary and artistic works protected by this Convention shall enjoy the exclusive right of making and of authorizing the translation of their works throughout the term of protection of their rights in the original works.[10]

The article establishes translations of copyrighted works as the exclusive right of the original copyright holders. This means that any translation of a given text may only be carried out with the express written permission from the copyright holder.

The ND clause from Creative Commons states: "If you remix, transform, or build upon the material, you may not distribute the modified material".[11] Further, in the legal code of the ND clause there is a section on Adapted Materials that reads:

> Adapted Material means material subject to Copyright and Similar Rights that is derived from or based upon the Licensed Material and in which the Licensed Material is translated, altered, arranged, transformed, or otherwise modified in a manner requiring permission under the Copyright and Similar Rights held by the Licensor.[12]

This means that an original language text cannot legally be used for translation without prior and express written agreement, although these texts were created at least in part for the purpose of translation. Although the ND clause may be useful in some contexts, the use of the ND clause on original language and supporting resources is antithetical to the cause of Bible translation.

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9 As is well known, SIL had to pull their Translator's Notes resource from ParaTExt while they renegotiated their license to use the embedded text of the NIV.

10 Berne Convention (1971), https://www.law.cornell.edu/treaties/berne/8.html. For a summary of the Berne convention, cf. http://www.wipo.int/treaties/en/ip/berne/summary_berne.html.

11 See the human-readable summary at https://creativecommons.org/licenses/by-nd/4.0/.

12 https://creativecommons.org/licenses/by-nd/4.0/legalcode.

The addition of the ND clause to original language resources immediately obscures the value of the text to the global church. In particular, it prevents the text from being a valuable resource when undertaking a translation task.[13] For translators not affiliated with an organization that has procured a license to translate, a written agreement granting the right to translate would need to be obtained directly from the copyright holder. As mentioned above, this task is far too burdensome for the licensor and the hundreds or thousands of potential licensees.

Limitations of NonCommercial Clause for CCBT

It is considered that one of the purposes of the Creative Commons NonCommercial (NC) clause is to prevent other people or organizations from making money on a text that they did not create.[14] The clause simply states, "You may not use the material for commercial purposes."[15] While appropriate for some contexts, in the realm of CCBT this restriction can prevent others from earning a wage for the work that they have done in translation and checking.

In the case of an original language resource, like a Greek or Hebrew text, if it were to contain the NC clause, then any translation of it could not be sold commercially.[16] Given the amount of creative work that goes into a translation, it would seem appropriate to allow the translators to sell their work. Further, if they expect to print and distribute the work, as many do, they may be unable to make this a profitable endeavour. The CC FAQ mentions that the NC clause is purposely not too narrowly defined and concedes, "there will always be uses that are challenging to categorize as commercial or noncommercial".[17] This is an intimidating legal situation to find oneself in, especially if legal counsel is not readily available.[18]

Unrestricted Licenses

These licensing limitations, briefly discussed above, have led to the consideration of other options. There are at least three licenses that do not cause any of the aforementioned complications. These licenses are:

- Public Domain/Creative Commons Zero[19] (CC0),
- Creative Commons Attribution[20] (CC BY),
- Creative Commons Attribution-ShareAlike[21] (CC BY-SA).[22]

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[13] It may be argued that such a use would be acceptable under "fair use", but that argument misses the prior point that both copyright law and the ND clause explicitly disallow such an interpretation.

[14] Copyright is incapable of preventing people from violating the restrictions; it only offers a way to seek financial restitution (or a criminal claim in some cases) if there is a violation. See the FAQ answer, "My published work has been reproduced without my permission. What can I do?" at http://www.wipo.int/copyright/en/faq_copyright.html.

[15] See the human-readable summary at https://creativecommons.org/licenses/by-nc/4.0/.

[16] The translation may use its own license, but it must abide by the NC clause. See the clarification from CC at https://creativecommons.org/share-your-work/licensing-types-examples/licensing-examples/#nc.

[17] See the CC FAQ page at https://creativecommons.org/faq/#does-my-use-violate-the-noncommercial-clause-of-the-licenses.

[18] For further reading on how the NC clause adversely affects the global church, see Appendix B in Jore (2015: 263).

[19] See the human-readable summary at https://creativecommons.org/publicdomain/zero/1.0/.

[20] See the human-readable summary at https://creativecommons.org/licenses/by/4.0/.

[21] See the human-readable summary at https://creativecommons.org/licenses/by-sa/4.0/.

[22] See Chapter 9 in Jore (2015: 208) for a cogent argument in favor of CC BY-SA for new works.

Together these form a trifecta of licenses that are intended to provide the global church with the legal permission needed to carry out the task of Bible translation in their individual contexts. Specifically, the global church would have the irrevocable permission to use, translate, modify, and confidently base their derivative works upon a text with one of the above licenses, assuming that they abide by the terms.

There is yet one more license that has been used effectively in certain situations. If existing organizations are reticent to release their works under the above licenses, an intermediate choice is the Free Translate 2.0 International Public License.[23] This license, in summary, grants the global church freedom to translate the work into any other language without any strings attached. The licensor of the original work retains full rights to the identifiers (brand) as well as the text in the source language and the translator is granted the copyright for the translated work. Although useful for many types of resources, it does not allow for more common types of derivative works. As such, it is not well suited for original language resources that frequently need to allow for remixing the data to fit the needs of software and complex data relationships.[24]

Original Language Resources for CCBT

The foregoing section has argued that the CCBT movement has dual needs of access to original language and training material in GLs and the legal freedom to use them in their contexts. Having recognized these trends and the present limitations, the unfoldingWord project has been working diligently to find or collaborate with others to create resources that fit these needs. The following projects are aimed specifically at helping Bible translators and translation quality checkers to better understand the text so that they can produce accurate, natural, and faithful translations. They also aim to reduce the amount of ancillary education needed to use the resources. Each project is intended to be incorporated into a software tool for checking Bible translations called translationCore.[25] What follows is the rationale, methodology, present state, and future plans of each of the unfoldingWord original language projects.

The Open Scriptures Hebrew Bible[26]

The initial resource for consideration is the Open Scriptures Hebrew Bible (OSHB) morphology project. This collaborative project was launched online in December of 2009 and has attracted over 300 contributors. The goal of the project is to create a fully open set of morphological data for the Westminster Leningrad Codex (WLC) text,[27] which is in the Public Domain.

The general methodology for creating this data was to enlist the help of volunteers to contribute parsing data on a collaborative website.[28] New contributors were given a role of Contributor, while those who had demonstrated competency in Hebrew or Aramaic and a high degree of commitment to the project were given an Editor status. The primary difference between these roles was that Editors had

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[23] See the text of the license at https://unfoldingword.bible/freetranslate/. This license has been vetted by legal counsel.

[24] For example, alignment data, which shows the relationship of the original language and the translation, would not be allowed under this license unless there is a layer of abstraction inserted between the texts.

[25] http://translationcore.com.

[26] Project license: CC BY 4.0, available at https://github.com/openscriptures/morphhb.

[27] From the J. Alan Groves Center for Advanced Biblical Research, https://grovescenter.org/projects/westminster-leningrad-codex/.

[28] http://hb.openscriptures.org.

the ability to mark parsings as verified, whereas Contributors could only contribute parsings. The software was careful to track each contribution without overwriting anyone's submission.

Consistency of data is a concern when working with a large corpus, even more so when one is coordinating work among many volunteers in a domain that does not have one set of rules to govern it (e.g., morphology). Primarily two techniques were used to alleviate this complication. First, open discussion followed by documentation of design decisions and agreed upon solutions.[29] Second, software was used to standardize several decisions that were made in the parsing schemes.

The largest jump in productivity came from sophisticated "copy and paste" routines that were devised in the software.[30] Since many forms in the Old Testament are identical (e.g., וַיֹּאמֶר), it was postulated that copying and pasting a verified parsing onto the identical occurrences of the same form would be a simple solution. This was found to be true for the vast majority of forms, as long as certain overlapping forms were excluded.[31] This method increased first pass parsing and augmented the process of marking forms verified, without compromising the integrity of the data.

The OSHB project had its first release of the morphology in December 2013, though the second and third releases were just in the past few months. This increased activity is a direct result of the involvement of the unfoldingWord project, which began helping in the summer of 2016. Since then, several dedicated parsers and a few software developers have generated an immense amount of productivity in just over a year's time, yielding the current nearly complete status.

The most recent release, OSHB 1.4,[32] contains verified parsings for 95% of the forms in the WLC. Beyond the released numbers, the in-progress data shows a first pass parsing on 100% of the forms, with a full 99% being verified. The OSHB text and morphology has been in use by several software applications, which are now benefiting from the increased morphological coverage.[33] The project intends to complete the task in the coming months.

unfoldingWord Hebrew Bible (UHB)[34]

UHB is a derivative of the above mentioned OSHB. The primary reason for the derivative is to support embedding metadata directly into the text. The UHB is being developed by some of the same people who have contributed to the OSHB, but the significance of having it as a separate project is that it allows a dedicated focus without requiring the upstream project to accept changes that do not make sense in its broader context.

In particular, the UHB uses the forthcoming USFM 3 word attributes[35] to encode links to the unfoldingWord translationWords[36] and translationNotes[37] resources in the appropriate locations throughout the text. For example:

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[29] Developing the unfoldingWord Hebrew Grammar (discussed below) at the same time offered opportunities to define exactly what usage categories would show up under a particular morphological heading.

[30] Code available at https://github.com/openscriptures/morphhb-parsing/tree/master/morphhb-scripts.

[31] For instance, several inflected forms that could be marked imperfect or jussive.

[32] https://github.com/openscriptures/morphhb/releases/tag/1.4.

[33] See the comparison of the BHSA morphological dataset with the OSHB dataset provided by Dirk Roorda in this volume. Cf. https://github.com/ETCBC/bridging/blob/master/programs/BHSAbridgeOSM.ipynb.

[34] Project license: CC BY 4.0, available at https://unfoldingword.bible/uhb/.

[35] https://ubsicap.github.io/usfm/attributes/index.html.

[36] https://unfoldingword.bible/tw/.

[37] https://unfoldingword.bible/tn/.

\w רָעָב|lemma="רָעָב" strong="H7458" x-morph="He,Ncmsa" x-tw="rc://*/tw/dict/bi-ble/other/famine" \w*[38]

The first three fields come directly from the OSHB data, but the final attribute (x-tw) is a link to an article on famine in the translationWords resource.[39] Encoding the metadata directly in the text makes it discoverable and convenient for software developers to import and use the resource in translationCore or other tools.

The next iteration of the UHB is a layer of syntactic parsing that will overlay the form-centric morphological data. This would be another parsing layer on top of the morphology that focuses on the function of the words and phrases.[40] This phase of development is currently in need of a software platform that can enable contributors to tag nearly any combination of forms and apply a set of labels to it.[41]

In conjunction with these projects, development has been proceeding on a reference grammar for biblical Hebrew and biblical Aramaic. The unfoldingWord Aramaic Grammar (UAG)[42] is just beginning, but the unfoldingWord Hebrew Grammar has gone through several revisions and is set for its first release.

unfoldingWord Hebrew Grammar (UHG)[43]

UHG is a biblical Hebrew reference grammar based on the morphology codes that appear in the OSHB. The rationale behind creating the first version of the UHG is to provide an openly-licensed and up-to-date reference grammar for direct use with the OSHB or UHB. Such a grammar may be used in software to provide students and translators of Scripture with up-to-date and accurate descriptions of Hebrew grammar on an as-needed basis.[44] Because the articles are directly patterned after the morphological categories of the OSHB, it is simple for software to link directly to them from that text.

A team of scholars and developers worked together to create and revise each of the articles in the UHG over the course of a year and a half. The creation process included individuals drafting glossary and article entries for each grammatical topic and then a series of peer reviews of each. The differentiation between the glossary entries and the articles is similar to the approach of many Wikipedia articles. The glossary entry is a one or two sentence summary of the grammatical topic, while the article goes into much more detail and includes several examples. This has the effect of being useful in a pop up or tooltip in software applications, which may provide immediate access to the glossary in the pop up and then link to the full article.

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[38] https://git.door43.org/unfoldingWord/UHB/src/branch/master/08-RUT.usfm#L13.

[39] The link format follows the Resource Container specification at http://resource-container.readthedocs.io/. This particular link uses a wildcard asterisk to direct the software to display the resource in the language the user has loaded (if it is available).

[40] Similar to the Westminister Hebrew Syntax https://grovescenter.org/projects/westminster-hebrew-syntax/.

[41] It is unclear whether the data will be incorporated into the upstream OSHB project, though it will be available under the terms of the CC BY license.

[42] The UAG will not be covered in this paper, but it will follow the same general methodology that is described in the unfoldingWord Hebrew Grammar section. UAG project license: CC BY-SA 4.0, available at https://unfoldingword.bible/uag/.

[43] Project license: CC BY-SA 4.0, available at https://unfoldingword.bible/uhg/. See grammar formatting guidelines at http://ug-info.readthedocs.io/en/latest/.

[44] This is first use case for the unfoldingWord project, adding the resource into translationCore.

A unique design goal was to make the language of the grammar as simple as possible so that the resource can more easily be translated into the GLs of the world. This should also have the effect of rendering the grammar accessible to people of varied educational backgrounds and varied proficiency in the English language.

The work was completed using an online content creation and translation platform, the Door43 Content Service.[45] Because of this, all the work is under revision control and accessible for viewing (it totals over 2600 commits at the time of writing).[46]

In conjunction with the UHB as noted above, the UHG will be extended to cover higher level syntactic and semantic information. This will generate a new list of categories that will need explanations in the UHG. Some examples of new categories are discourse markers, specific uses of imperfect forms, and more specific particle and pronoun designations. A further extension may be to take the raw material from this work and modify and reformat it to be useful as a teaching grammar. This would provide a teaching resource that could easily be translated and adapted into other GLs.

unfoldingWord Hebrew and Aramaic Lexicon (UHAL)[47]

The final resource in this compendium of Old Testament original language resources is the most technically challenging, the UHAL. This project is just at the beginning stages, but has as its aim a reliable, up-to-date, and accessible lexicon, intended for translation into the GLs. The project is using the Brown-Driver-Briggs Hebrew and English Lexicon (BDB) as its starting point, while revising it in several discrete stages.

The first phase will primarily entail updating the glosses and definitions to conform to modern, simple English and the latest lexicons. Part of this requires an attention to detail and clarity, while another part will benefit from a well defined workflow that multiple contributors can use to ensure consistency. Concurrent with this process will be reformatting the work so that it is easily usable in a digital context.

The second phase, and long-term goal, is to revise the lexicon so that it is a corpus-driven advanced learner's Hebrew-English and Aramaic-English lexicon.[48] There will be much overlap with the unfoldingWord Greek Lexicon described below in terms of methodology and tooling to accomplish this feat. The result will be a context-aware lexicon that will provide immense interpretive value to translators and exegetes alike. Lexicographers and software developers are needed to help achieve this goal.

unfoldingWord Greek New Testament (UGNT)[49]

The motivation for this project was the need for a modern, critical Greek NT text which would be released as CC BY or CC BY-SA. In early 2016, we on the unfoldingWord project became aware of the work of Alan Bunning and his Center for New Testament Restoration and reached out to him to collaborate with his project.[50] Volunteers were enlisted to help Bunning with various levels of checks on his data and in late 2017 a preliminary text was released, the Bunning Heuristic Prototype (BHP).

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[45] https://git.door43.org.

[46] https://git.door43.org/unfoldingWord/en_uhg/commits/branch/master.

[47] Project license: CC BY-SA 4.0, available at https://unfoldingword.bible/uhal/.

[48] For details about this approach, see Price (2015).

[49] Project license: CC BY-SA 4.0, available at https://unfoldingword.bible/ugnt/.

[50] See https://greekcntr.org/. For a full rationale of the textual critical principles behind the text, see Bunning (2018).

Each word of the BHP is tagged with a morphological code and an Enhanced Strong's number. A future release will provide a morphological code and Strong's number not only for the text of BHP, but also for every word found in the transcriptions of all Greek witness up to A.D. 400. Where Strong's provides a number, it is retained but a trailing zero is added (thus Strong's 5207 became BHP 52070). This allows the addition of numbers for words appearing in the manuscripts which were never given an original Strong's number so that new words which should be placed alphabetically, for example, between 5207 and 5208, can be added using the available numbers 52071, 52072, 52073, etc. through 50279.[51]

The UGNT has not yet been released and it will differ from the BHP in three areas. First, because it will be aligned (mapped) to the unfoldingWord Literal Text (ULT),[52] minor differences are being made to match the ULT versification numbers. Secondly, a small number of verses which have no Greek text in the BHP will be added in footnotes to provide a Greek text in support of verses omitted in some versions (e.g., Mark 16:9-20; John 7:53-8:11).[53] Thirdly, metadata is being added, such as links to our translationWords articles.[54]

As was mentioned above for the UHB, another layer of syntactical designations will also be added to the UGNT. Progress for that additional work is dependent on the number of volunteers available to write this content.

unfoldingWord Greek Grammar (UGG)[55]

Like the UHG, the UGG will provide an article explaining Greek grammar for each item listed in the UGNT's morphological codes. Thus, when a user hovers their mouse over the abbreviation in a morphological code listed for a word in the UGNT, it will produce a tooltip or pop-up window giving a short definition for that grammatical issue (e.g., active voice). If more information is desired, a further pop-up window may be called up which will explain the grammatical issue in more detail, as well as give examples. The examples are given in three rows to include the Greek text, the transliterated text and a form-centric English translation. Following an as needed ("just-in-time") learning model, this will provide the user with teaching about the grammatical issues as they need them during their translation or checking process.[56]

Each UGG article will be written in English that can be understood by speakers of English as a foreign language and with the express intent of being translatable into other languages. For an example, the UGG articles will be translated into Croatian so that mother tongue translators of Romani dialects can access the information. This will help them better understand grammatical issues as they translate from Croatian into a Romani dialect. At present, one or two sentence definitions have been written for most items occurring in the UGNT's morphological codes. Editors are needed to review these, as well as to assist in writing the longer articles for each grammatical item.

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[51] See section 4.1.4 "Enhanced Strong's Numbers" in Bunning (2018: 50) for a full description.

[52] https://unfoldingword.bible/ult/.

[53] See the full list at https://git.door43.org/unfoldingWord/UGNT#changes-from-the-bhp.

[54] As described above for the UHB. See a full example at https://git.door43.org/unfolding-Word/UGNT/src/branch/master/64-2JN.usfm#L15.

[55] Project license: CC BY-SA 4.0, available at https://unfoldingword.bible/ugg/. See grammar formatting guidelines at http://ug-info.readthedocs.io/en/latest/.

[56] The process described is being developed in translationCore.

unfoldingWord Greek Lexicon (UGL)[57]

Just as there is a dearth of grammars available which provide mother tongue translators access to biblical languages, there is also a lack of up-to-date lexica in the Gateway Languages. A pressing need is for lexica written specifically in order to be translated so that they will be available to mother tongue Bible translators. To meet this need, unfoldingWord launched the UGL project.

There are three stages envisioned for UGL. The starting point for this project was the digitization of Abbott-Smith's *A Manual Greek Lexicon*,[58] by Translatable Exegetical Tools (TExT).[59] Stage one has been completed by checking and formatting Abbott-Smith to bring the digital version into conformity with the original printed edition, with the addition of BHP Strong's numbers and BHP occurrence counts for the lemmas.[60]

In stage two, volunteers are rewriting each lexical entry. After comparison with other modern lexica (BDAG, Louw & Nida, Newman, Friberg), the Abbott
-Smith glosses will be updated and definitions will be added, along with examples from the GNT or extra-biblical Hellenistic Greek corpora. The lexical entries will be written to be understood by speakers of English as a second language, and in order to be translated into GLs to be used as resources for mother tongue Bible translators.

Stage three will be to revise the lexicon so that it is a corpus-driven advanced learner's Greek-English lexicon.[61]

Conclusion

The resources described in this paper are designed to meet the unique needs of the CCBT paradigm. Each resource aims to be accessible to the world in the GLs, which includes simplified English that is easier to translate than academic verbiage. Further, each resource is intended to be unrestricted from legal entanglements, having either a CC BY or a CC BY-SA license. With continued collaboration among key organizations and individual volunteers, these resources will be made available to the global church, extending the reach of the knowledge of the original languages.

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[57] Project license: CC BY-SA 4.0, available at https://unfoldingword.bible/ugl/. See lexicon guidelines at http://ugl-info.readthedocs.io/en/latest/.

[58] Abbott-Smith (1922).

[59] See http://textonline.org/greeklexicon and https://github.com/translatable-exegetical-tools/Abbott-Smith.

[60] The work was completed in February of 2017. https://github.com/translatable-exegetical-tools/Abbott-Smith/releases.

[61] For details about this approach, see Price (2010).

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