# Same Data, Different Perspectives

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#### Introduction

The same body of data can be viewed from different perspectives. Presenting analyzed data crafted into visualizations of information will accentuate or diminish concepts based on the different foundational assumptions or needs that the user of information has. This can be leveraged to serve multiple stakeholders from one service and datastore. Communications practitioners crafting messages for promotion and prayer mobilization have different needs for information and different core assumptions than strategic planners determining resource and personnel needs and pursuing partnering opportunities. Their needs also differ from information that funders seek in order to target their contributions.

In this paper the author demonstrates how the needs of different stakeholders are served through the information service **progress.Bible™** by a description of the service's core concepts, sources of data, and visualizations² of information that have been developed to serve diverse stakeholders.

## What is progress. Bible?

Progress.Bible is an information service about the global state of Bible translation and scripture engagement. It is designed for organizations working on translation, publishing, distribution, or engagement with the Bible, but it also provides information to other organizations interested in using scripture in various kinds of Christian ministries.

Progress.Bible addresses themes of Translation Need, Language Engagement, and Completed Scripture by gathering data from participating organizations about their work in translation and/or related scripture use, literacy, education or technology development work. This shared data is aligned with reference data about the languages of the world from the *Ethnologue*<sup>3</sup> to construct a shared understanding of the remaining needs in Bible translation and measure the pace of progress in meeting these needs.

#### Gathering and Collating the Data

Progress.Bible works with data-contributing organizations ("Data Contributors") who are members of one of three bodies which collectively represent almost all of the organizations working in the Bible Movement that translate, publish, and promote the use of Scripture. These are the Forum of Bible Agencies International (<a href="www.forum-intl.net">www.forum-intl.net</a>), the Wycliffe Global Alliance (<a href="www.wycliffe.net">www.wycliffe.net</a>), and the Every Tribe Every Nation alliance (<a href="www.everytribeeverynation.org">www.everytribeeverynation.org</a>). The organizations represented in these three alliances are already working together in numerous ways, from joint development of standards and software to collaboration in specific language projects. Sharing data with one another via

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<sup>&</sup>lt;sup>1</sup> The author gratefully acknowledges the valuable feedback given by Chip Sanders and Tammy Schutt, both of SIL International, in the development of this paper.

<sup>&</sup>lt;sup>2</sup> All images within this paper are used by permission of progress.Bible™ and may not be reproduced apart from this paper without permission of SIL International.

<sup>&</sup>lt;sup>3</sup> Simons, Gary F. and Charles D. Fennig (eds.). 2018. *Ethnologue: Languages of the World*, Twenty-first edition. Dallas, Texas: SIL International. Online version: <a href="http://www.ethnologue.com">http://www.ethnologue.com</a>.

progress. Bible is a new form of formal collaboration for the Bible Movement, and as more organizations learn of it, many eagerly embrace being a part of this collaborative service. 4

Being a part of the service typically involves sharing data in two primary themes:

- Language Engagements
- Scripture Products.

These two themes, coupled with reference information about the languages of the world, combine to form a comprehensive high-level view of the availability or absence of scripture, and the concomitant need for translation work. *Need* thus constitutes the third major theme in progress. Bible. Currently the progress. Bible team is developing a process to gather explicit data on "Expressed Need" for translation work, an important sub-theme within the broader theme of Translation Need which will be discussed later in the paper.

## Concepts and Definitions in the Data

This is a review of the concepts regarding and definitions of the data fields included in progress. Bible that are germane to the discussion points of this paper. It is not intended as a comprehensive list, and definitions are more conceptual than technical in this section.

**Language**: A language that has been identified in *ISO 639-3 Codes for the representation of names of languages, Part 3: Alpha-3 code for comprehensive coverage of languages.* (<a href="http://www-01.sil.org/iso639-3/default.asp">http://www-01.sil.org/iso639-3/default.asp</a>)

#### Language Engagement

Organized engagement by a group or agency which is intended to produce outputs and outcomes related to development<sup>5</sup> of a particular language in one or more spheres of use. The kinds of **Major Activities** documented for language engagement divide into two groups:

#### Scripture related:

- Translation to produce scripture in textual, audio, or video forms;
- Development of Bible teaching and study materials;
- Scripture Engagement to use scripture for particular spiritual and societal goals;
- Development of materials from / based on scripture in audio or video media.

#### General language development related:

- Language assessment
- Orthography development
- Literacy programs
- Multilingual education
- Dictionary development
- Documentation of local culture and knowledge

<sup>&</sup>lt;sup>4</sup> Sharing data informally is not new among the organizations of the Bible Translation Community. Formally sharing certain kinds of data in a single framework, based on definitions held in common and collated into a single datastore, is a new way of working.

<sup>&</sup>lt;sup>5</sup> Simons, Gary F. 2011. "On defining language development." A poster presented at the 2nd International Conference on Language Documentation and Conservation, University of Hawaii, 11–13 February 2011. http://www-01.sil.org/~simonsg/poster/ICLDC%202011%20poster.pdf.

Along with identifying the language and major activities, **Language Engagement** data must include **Status** as Past, Present, or Future (planned).

Other important, though optional kinds of data include:

- **Function**(s) of the organization reporting its engagement
- Time frame of activities as beginning and ending dates
- Output goals, particularly scripture product goals
- **Progress data** mined from translation projects that use software equipped to capture and share such data through automated processes.

Each of these has associated definitions and typologies to which the Data Contributors' data are mapped for processing into the progress. Bible's data warehouse.

Progress.Bible does not attempt to track work of isolated individuals working independently. Sustainability of projects and longer-term programs usually requires institutional/organized group support. Quality and usability improve through working in a group in a manner that meets recognized external standards. In particular, agencies contributing data to progress.Bible commit to applying the Translation Standards of the Forum of Bible Agencies International (FOBAI)<sup>6</sup> in conducting translation work.

#### **Scripture Products**

Translation agencies, publishers, and distributors of scripture and scripture-related products provide **Scripture Product** data. Data elements that describe Scripture Products, in addition to the language, include:

- Scope of scripture included: Bible, New or Old Testament, or particular book(s)
- **Type or comprehensiveness**: Complete text, selections, story form, dramatization, etc., of the scope specified
- Date of production or publication

These data elements are essential; however, progress. Bible also gathers additional elements that are valuable but are not required.

#### Reference Data on Languages

Another standard (mentioned above) that forms the spine of the data in progress. Bible is the ISO 639-3 language code set. Without such a standard, there would be no shared point of reference for what is identified as a language in progress. Bible. On this standard *Ethnologue: Languages of the World* is based<sup>7</sup> and offers a body of reference data about each living and recently extinct natural language (and language community) of the world. This body of data is the source for progress. Bible for several data

http://www.forum-intl.net/resources/index.htm (documents available in both English and French)

<sup>&</sup>lt;sup>7</sup> The Ethnologue existed prior to Part 3 of ISO 639, and in 2004 was used as the basis of extending the existing code sets of ISO 639 parts 1 and 2 to become comprehensive. Since the publication of the 14th edition of the Ethnologue in 2005, the languages documented in Ethnologue have been aligned with the ISO 639-3 code set, which is updated annually. See "History of the Ethnologue" in Ethnologue: Languages of the World. https://www.ethnologue.com/about/history-ethnologue

points<sup>8</sup> for every identified language that it documents. I will highlight only a few here:

- Names by which the identified language is known;
- Primary country and additional countries in which the language is indigenous or established;
- Language status as Living or Extinct, and the more refined vitality metric of "EGIDS";
- **Population** figures (first language users, total users, members of related ethnic group);
- Location as coordinate-based mapped "shape";
- Language development: literacy rates, domains of use, media availability, etc.

The most visible overall metric that *Ethnologue* updates and publishes each year is the number (and list) of Living Languages. This number and list is used as an inventory and reference list for the data presented in progress.Bible.

#### Languages not in the language reference standard

The question of what constitutes a language for the purposes of understanding need to translate scripture is crucial for progress. Bible and the Bible Movement. While using an internationally recognized standard brings great benefits, it is clear that there are complex issues with attempting to create a standardized list. <sup>10</sup> There are languages in existence <sup>11</sup> that are not identified in the chosen standard, yet are no less in need of translation work. These situations should form the content of a whole separate paper! While the issue is an important one, it is not the focus of this paper.

#### Data that evolves versus data that is stable

Data about Products differs from that of Languages and Language Engagements in a fundamental way that is important to understand for data management and warehousing. The data representing a Language/Language Community, and the data representing a Language Engagement change over time, while the data about a published Scripture Product does not. Scripture products exist from a point in time forward and, if properly described in the first place, the data about a scripture product does not change 12.

Language engagements change over time: they are planned, carried out, and eventually ended, such that the *status* always changes if considered over a sufficiently long timeframe. The *activities* carried out might change over the duration, *goals* may be expanded or reduced, and *progress* toward the goals

<sup>&</sup>lt;sup>8</sup> See "Language Information" in *Ethnologue: Languages of the World,* https://www.ethnologue.com/about/language-info

<sup>&</sup>lt;sup>9</sup> "Extended Graded Intergenerational Disruption Scale", an analytical measure of the vitality of a language. See "Language Status" in *Ethnologue: Languages of the World*, <a href="https://www.ethnologue.com/about/language-status">https://www.ethnologue.com/about/language-status</a>

<sup>&</sup>lt;sup>10</sup> Haspelmath. Martin. 2013. "Can language identity be standardized? On Morey et al.'s critique of ISO 639-3." In "Diversity Linguistics Comment" Blog, posted on 2013/12/04. https://dlc.hypotheses.org/610

<sup>&</sup>lt;sup>11</sup> See "The Problem of Language Identification" in *Ethnologue: Languages of the World*, <a href="https://www.ethnologue.com/about/problem-language-identification">https://www.ethnologue.com/about/problem-language-identification</a>. One major group is Sign Languages used by Deaf communities. Though the ISO 639-3 standard includes more than 140 Sign Languages, various bodies estimate hundreds more exist in addition to these. Two Deaf community organizations, Deaf Bible Society and DOOR, are working with progress.Bible to maintain a common set of Sign Language identifiers, with a minimal body of descriptive data (names, population estimate, location), for every well-attested Sign Language that is not included in the ISO 639-3 standard.

<sup>&</sup>lt;sup>12</sup> The data handling in this regard is getting more complex with the progressive release of digital scriptures, but this is still true of all past products and most products published currently.

accrues. Contributors of data commit to regularly submit updated data about all their projects, <sup>13</sup> whether past, current, and planned. Progress.Bible generates and stores snapshots of the most current data on a monthly cycle, and maintains the history of Language Engagements through connecting these monthly snapshots. The total number of engagement records is always increasing, but from one month to the next, the number of "Current" Language Engagements can go up or down.

Data about languages changes both because our knowledge of languages of the world is incomplete and constantly growing, and because language communities themselves change—sometimes slowly, sometimes quickly—under the inevitable influences of other languages around them. Thus, the inventory of Living Languages also changes over time.

The data of *Ethnologue* is constantly being updated with the assistance of a global body of field editors, though the release of data to the public is done only through annual editions. However, as SIL is the managing organization for progress. Bible and the owner of the *Ethnologue* datastore, progress. Bible is privileged to be able to access and use certain data points as the editors approve updates through the year. This equips progress. Bible with the most current data on Language Status, Language Vitality, and Population, which are critical for analyzing the need for translation in a given language.

This intrinsic characteristic of change over time of both Languages and Language Engagements adds to the complexity of collating data and presenting metrics about them, especially for audiences not well versed in these nuances.

## Presenting information to different kinds of stakeholders

## A Simple View of Progress and Need

This view is appealing because of its simplicity. Its purpose is communicating how many of the Living Languages today have various levels (amounts) of scripture available. The follow up question that usually accompanies it is how many of the Living Languages that don't have the Bible at least have work going on in them? The matrix below answers this question. It also shows how many languages in a given "Scripture level" category have *Work in Progress*.

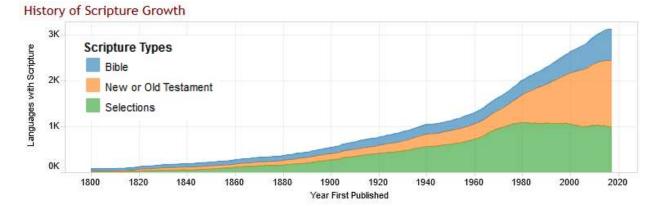
#### Scripture - Engagement Matrix

	No Scripture	Stories	Selections	Old Testament	New Testament	Bible	Row Total
In Progress	579	120	612	2	924	393	2,630
Not Currently Active	3,187	27	357	5	609	282	4,467
Totals	3,766	147	969	7	1,533	675	7,097

Languages that are In Progress are presumed to be moving toward the eventual goal of a whole New Testament or even a whole Bible. To date, 675 languages have achieved the goal of a Bible, and 1533 more have at least a New Testament. Some languages have more than one translation, but each language is counted only once.

<sup>&</sup>lt;sup>13</sup> Organizations contribute data about their "projects", which progress. Bible maps to the more abstractly defined Language Engagement concept. In this way we do not have to be concerned with potential conflicts in definition in which, for example, one organization defines project as a 3 year segment with incremental output goals, while another organization defines project as the whole pursuit of a major goal typically over a longer timeframe.

Graphing the growth over time shows a simple view of progress:



The above graphics communicate both the accomplishments in Bible translation up to now, as well as the many languages that still await their first scripture, their first New Testament, their first whole Bible. A number of organizations have asked to use a version of the "History of Scripture Growth" in their public communications—exactly the kind of audience for which it is intended.

This, however, does not actually offer a perspective on Need that most workers in the Bible Movement are desiring to promote and use.

## Presenting the Data on Translation Need

One important concept that everyone—promotional communicator, prayer mobilizer, strategic planner, executive director, high level investor, or field operations director—wants to track and keep in constant view is that of Unmet Translation Need. It may seem strange to the reader that the concept of Need was not defined in the earlier section on concepts and definitions. The reason for this is that progress. Bible does not attempt to enforce a single definition of Translation Need. Instead, progress. Bible is able to use the data it gathers and maintains to present multiple "views" according to different sets of foundational assumptions.

## A Bible in Every Language view

This view is quite simple, in fact, it is really too simple to be useful. This view has the foundational assumption that every Living Language should have the Scriptures, preferably the whole Bible, but at minimum the whole New Testament. The two visuals displayed above could be used to support this perspective. It would be easy to look at the chart and graph and form the judgment that as many as 3570 languages are in need of Bible translation and are not on the way to getting this need met.

However, this perspective is oversimplified primarily because the definition of Living Language requires unpacking. This can be done by applying the reference information that *Ethnologue* tracks on Language Vitality. The number of Living Languages recorded in *Ethnologue* currently stands at 7097<sup>14</sup>, an inventory that includes languages used by more than a billion people worldwide (e.g., Chinese and English) as well as languages used only for ceremonial purposes by a small community of people—languages the *Ethnologue* describes as Dormant. A Dormant language has an ethnic community with a living memory

<sup>&</sup>lt;sup>14</sup> See "Summary by language status" in *Ethnologue: Languages of the World*, https://www.ethnologue.com/statistics/status

of its language, but they do not use it in everyday life. They have switched to using another language for all regular communication. The community will not be reached with the gospel through their heritage language, so translation into such a language holds little more than sentimental value, and a high quality translation is probably not even achievable. Currently 240<sup>15</sup> of the 7097 Living Languages that have less than a whole Bible are classified as Dormant. Some agencies working in Bible translation would prefer that these not be included in the Living Languages inventory.

Consider also languages with only slightly stronger vitality—languages which are Dying in regard to regular use and transmission to younger generations because the community is well along in shifting to using another language. These languages usually have their needs for scripture effectively met by scripture products in the language to which the community has already effectively shifted. This moves 670 *more* languages out of consideration from a reasonable Translation Need list. Even with this better understanding, 2660 (3570 minus (240+670)) languages is a much larger list than is currently being used in communicating about the ongoing need for Scripture translation.

Many organizations consider even languages that are Shifting (EGIDS definition: the child-bearing generation can use the language among themselves, but it is not being transmitted to children) are already likely to be effectively served by the language to which the community is shifting. In some cases, though, it may be appropriate to carry out some translation or oral story development in the language with the community.

There is not full agreement across the Bible Movement regarding what minimum language vitality level is needed in order to justify and sustain a translation effort. This makes the presentation of Unmet Translation Need much more interesting!

## An Investor's and Strategic Planner's Perspective: All Access Goals view

The All Access Goals view is based on a set of goals for scripture availability that has been set by one major alliance at work in the Bible Movement. Its distinguishing feature is the selection of a goal for scripture translation based on the population of the speakers of the community, with a target completion year for these initial goals. The goal does not represent an end point expectation for any language. The overall intent of this initial goal formulation is to support 95% of the world's population having access to a whole Bible, 99% of the world's population with access to at least a New Testament, and 100% having access to at least some scripture (25 or more chapters) in the language that serves them best<sup>16</sup>.

A presumed set of goals is the foundational assumption characterizing this view. The identification of a clear, actionable high level goal has strong merits for planning, as well as communication to an interested public who are probably not interested in nuanced perspectives. The overall goal is broken into an easy-to-understand goal for each language, against which progress can be readily measured. Strategic planning within this view is relatively straightforward, based on pacing of project starts, availability of staff, training and consulting capacity, and technology support, which can support

<sup>&</sup>lt;sup>15</sup> A few Dormant languages have whole Bibles because they were at one time vibrant languages and continue today to be important liturgical languages for some Christian communities.

<sup>&</sup>lt;sup>16</sup> "Heart language" is a term often used in promotional materials by western organizations. For the purposes of this paper, discussion of the concept of heart language is not in view, so I have chosen instead to use a more generic—though perhaps less motivationally powerful—phrase "language that serves [them] best".

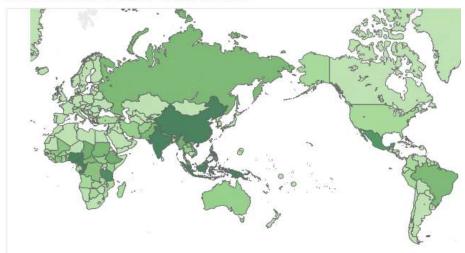
formulation of needed personnel and funding estimates. The Need can be clearly understood and communicated.

In this view, the Unmet Translation Need count and list of languages is calculated as: Unmet Translation Need = # Languages with goal not met - # Languages that have started work.

Recall that the activity of Translation is only one of the kinds of activity that are recorded for Language Engagement. There are languages that have current engagements in which Translation is not being done. An important part of the definition of "Languages that have started work" is whether this includes work other than Translation or not.

A global overview illuminating this view might be a map displaying the proportion of needs in each country, where the darker color represents the greater proportion of need:





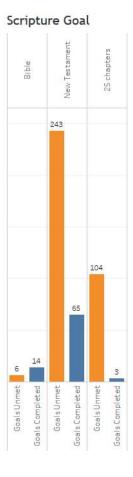
This is based on the percentage of Languages with Unmet Need. However, it can also be presented according to Population:

Greatest Population with Unmet Translation Goals

The country color shadings become a bit different when viewing Need according to the number of languages, versus the size of the populations with Unmet Translation Goals. Considering the goal formula is founded on population size of the community, and the overall goals for scripture availability are according to population, the view based on population is elevated in significance.

Those interested in planning and monitoring progress desire to get more specific—to dive deeper into data—than a global view presents. The bar chart at right, another view component, offers data at a country level (in this example) or a continent level. This data is aligned with a detailed view that displays for each language whether its goal is met, work has started, or work as not started, and the current status specifically in regard to translation as "active translation", "past translation", or future "planned translation".

The designation "work has started" could imply the same thing as an Engagement status of "active translation", but that is not the case. The definition that the stakeholders of this perspective have chosen states that "work has started" means that work in any domain began at some time in the past (recent or long ago) but might or might not be currently In Progress (active) in translation work. The rationale for this decision is that once a language has been counted as "started" it can be awkward and confusing to have to revert the language to "not started," if a project stops short of achieving the target goal. Many reasons arise as to why engagement in a language might stop, briefly or for an extended period. Only the Details view gives visibility into this state, which can help identify a need for further inquiry into the particular language situation. However, it is also subject to misinterpretation if the user does not understand the definitions fully. The inclusion of non-translation work within "work has started" acknowledges that many language programs benefit from preparatory kinds of work, e.g., documenting cultural stories or songs, or developing the writing system, prior to planning and beginning translation.



In this view there are also languages that are "unlikely to need translation" based on the assumption that a minimum level of language vitality, "Threatened" or stronger, is needed in order to sustain a viable translation effort. (This aligns with the related discussion point above). This does not rule out translation for Shifting languages; where work has already begun and is currently Active, or the target goal for the community has been completed, such a language is considered still in scope for planning and progress already achieved.

#### A Community- and Operations-centric view: Emergent Needs

This view has been in use widely across the Bible Movement since the latter half of 2016 and is the first view of Translation Need presented by progress. Bible. It was developed with stakeholders from another major alliance in the Bible Movement and numerous organizations use and share this view's version of the Unmet Translation Needs list for church engagement and prayer mobilization. The view has no formal name, but I've labeled it Emergent Needs, for reasons elaborated later.

This view presents a Translation Need Categorization<sup>17</sup> which calculates a category for all 7097 Living Languages. The categories are:

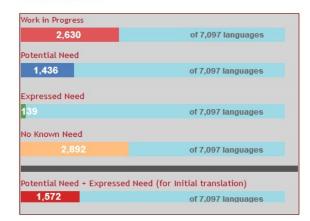
- Work in Progress: a language with any language engagement with a status of Current regardless of the major activities involved.
- **Potential Need**: a language in which no work has ever been carried out, and is vital enough to sustain translation work. "Threatened" is used here as the minimum vitality level for a language to be considered a Potential Need.
- Expressed Need: a language in which members of the language community, or an agency desiring to work with them, have expressed a desire for scripture in their language. Expressed Need uses a typology to further specify the kind of need:
  - Initial translation (there is no existing Scripture)
  - o Revision of existing Scripture
  - More Scripture where some, but less than a Bible exists
  - New translation where another translation already exists
  - Other Scripture-related media
- No Known Need: an unfortunate label for a category which is composed of all the remaining living languages that do not fit into any category above. A more accurate name would simply be None of the Above (though that label was rejected by stakeholders). No Known Need has three major subsets:
  - Languages with scripture adequate to serve current needs, or have stated a clear noninterest in translation, in some cases because the community is currently served by scripture in another language
  - Languages that are low vitality where no work is going on: Shifting, Dying, Moribund, and Dormant languages
  - Languages with little or no scripture, or old translations, in which there is no current engagement, but which are vital enough to reasonably sustain translation work.

From this unpacking of No Known Need we should state that "No Known Need" does not mean there are no needs! The staff of progress. Bible are already considering how subdividing these would improve understanding and application.

The visualization supporting this view (shown at the left) captures the comparative sizes of these categories, and is sensitive to a global, continent, or country level filtering for the view.

The foundational assumption of this view is that the most important thing to communicate is that a

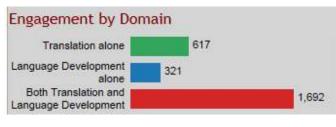
Translation Need



language community is currently engaged, whether the activity is specifically Translation, or is some other area of scripture engagement or language development not directly related to Scripture. The

<sup>&</sup>lt;sup>17</sup> The whitepaper "How progress.Bible describes Translation Need" was developed to elaborate on this categorization. <a href="https://tinyurl.com/y976n2cs">https://tinyurl.com/y976n2cs</a>

justification for this is two-fold: engagements among the agencies of the Bible Movement are conducted with a view toward translation (initial, continuing, revision, etc.), even if the timing at present is not right; and any agency that is considering work among a language community would be interested in knowing if any work is already going on there.





The paired visualizations communicate the major activities being conducted and set Work in Progress in geographic context.

A second foundational assumption of this view is: in language communities where no work has ever been done, more information is needed in order to understand whether there are needs for translation. In other words, the languages where no work has ever been carried out have "potential need", not "definite need". For many of these, upon investigation, it will be appropriate to record a specific Expressed Need (usually for Initial Translation), but until there is some investigation, declaring these as definitely needing translation is premature. Some

language communities will be found to be less vital than previously thought, or are served sufficiently by scriptures in another language. With multilingualism increasingly characterizing language communities around the world<sup>18</sup>, this is more often the case than in the past.

Though this view asserts a definition of Potential Need that should not be equated with definite translation need for planning purposes, this definition is just a bit too nuanced to work well in broad communication with the public. So, in this view, the Unmet Translation Need count is calculated as:

Unmet Translation Need = Potential Need languages + Expressed Need for Initial Translation languages

An observation to make about this view is that different roles interpret the category Potential Need just a bit differently. While mobilizers of public support might simplify the Potential Need category to just a part of translation needed, strategic planners can interpret this category as "investigation needed", such that the first engagement with a community in this category is more likely to be an assessment of needs and advocacy for considering options, rather than immediately entering into planning specifically for translation. This will likely depend on the organization undertaking the initial work with people in the community, perhaps influenced by whether the language community has an established church presence.

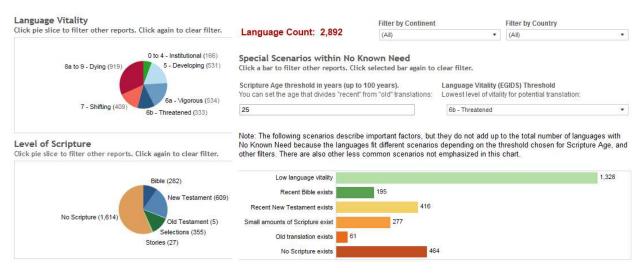
This is the reason I have labeled this perspective Emergent Need. This view supports efforts to investigate and encourages needs to emerge (and be counted and shared) based on desires articulated

<sup>&</sup>lt;sup>18</sup> Lewis, M. Paul, Gary F. Simons. 2016. *Sustaining Language Use: Perspectives on Community-Based Language Development*. Dallas, TX: SIL International

directly by the language communities themselves, or agencies planning to work with them in ways that involve use of scripture. In this way, Potential Need languages naturally transition into Expressed Need languages, and from that state, one hopes, on to being actively engaged. In addition, while expressing need for initial translation is very important, this process also encourages documenting desires of language communities that are beyond the initial translation stage. The recording of Expressed Needs is a new area of collaboration among Bible translation agencies, though the investigation and internal documentation of needs is not new *within* many agencies. The progress. Bible team is working with Data Contributors to better understand how to document, track, and share information about Expressed Needs. (Sharing such information is so new that progress. Bible has not yet constructed visualizations supporting the concept!)

Another observation about the Emergent Needs view is that, again, languages where work (in any activity) has started but subsequently stopped are not included in the Unmet Translation Need count, unless a new Expressed Need has been stated. The rationale for this is similar to the parallel situation in the All Access Goals view: once a language has been taken off the Unmet Translation Need list can be awkward to have to restore it to this list. Many reasons arise as to why engagement in a language might stop, briefly or for an extended period, before reaching some significant—not to say "adequate"—level of scripture. An Expressed Need for translation in a language that had past work but has no scripture will "move" the language from No Known Need category into the Unmet Translation Need category—a good thing for visibility and planning, but again, potentially confusing for broad public communication. This may be mitigated if the work in the language was from a considerable time past.

Returning to No Known Needs: there is so much going on in this category that a unique set of visualizations was created to unpack it:



The languages of No Known Need line up primarily in three major sets: those of low vitality, those with some significant amount of recent scripture, and those with no, little, or old scripture. The languages of this last group deserve attention to understand whether there exists a real need that is not yet expressed. In this set of visualizations, it is possible to try out different "threshold" settings for minimum vitality, age of existing scripture, and level of scripture, in various combinations.

## So, do the resulting Unmet Translation Needs lists actually differ?

The lists DO differ! In the March 2018 analyses from progress. Bible, the overall counts of languages in the two lists differed by over 100 languages, the All Access Goals view standing at 1454, and the Emergent Needs view standing at 1572. The difference lies in languages where work took place in the past and stopped without producing scripture, but also where subsequently a new Expressed Need has been recorded. These 118 languages are categorized in the Emergent Needs view as Unmet Translation Need, while the All Access Goals view treats them as Translation Started. It should not surprise us that the differentiator relates to a core assumption and resulting category in one view that has no parallel in the other view. There is also a live discussion about whether the definitions for "Started" and "In Progress" should include all kinds of work, or Scripture-related kinds of work, or only specifically Translation work.

Is one view right and the other wrong? I don't think so. They are based on different perspectives and foundational assumptions. However, having two views that people expect to produce comparable results but do *not* produce the same list of languages is definitely a problem. Work is underway to reconcile the views at least to the point that the bottom line count and list of languages with Unmet Translation Need is uniform. Even so, the other aspects of the different views, if well understood, can still illuminate important aspects of the complex concept of Need as it applies to Bible translation.



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