Books are too high-tech...try a DVD instead: rethinking production priorities for maximal accessibility in documentation and revitalization.

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1. Introduction

So.

In keeping with this year's theme of strategies for moving forward, I would like to draw attention to something which I am sure everyone here has actually noticed already.

Namely, that documentation-revitalization efforts continue to emphasize print literacy, assuming that it is a simple, cheap, and effective technology to implement.

The motivations for this norm are fairly clear-cut: print media are materially simple and robust, and often serve to socially legitimize previously unwritten languages. Reduction to text also radically facilitates automated searches and any number of other digital manipulation approaches, since interfacing with multimedia still sits on a foundation of text in so many ways. Finally, realization in print serves as a way to render what may once have only been a process, a series of practices, into something more concretely visible, which itself can help strengthen the position of the language.

But print literacy also carries heavy costs. The goal of this paper is to outline the material and non-material costs of this prioritization, and demonstrate why higher-technology alternatives like audiovisual media can often be cheaper and more accessible than print media.

First, the reproduction, distribution, and transport of substantial print materials is often much more expensive (especially when accommodating linguistic variation) than informationally equivalent digital media (CD, DVD) - even as digital media access is already strikingly widespread, particularly in precisely those communities whose contacts with mainstream media technology bring in significant stresses on local language status and use.

Second, print literacy also carries a serious non-material cost. Beyond orthography wars and resistance to writing itself, print literacy can create a generational gap right down the middle of revitalization efforts: youth read and write but do not speak, and elders speak but cannot read and write---with elders often being excluded from teaching for this very reason. It can also draw attention away from the primary problem of maintaining and expanding the domains in which the language is richly used: print media production creates an illusion of great work being done for the language, even as a community's daily speech-use practices can continue to dwindle.

Working from a comparison of how print literacy has affected revitalization efforts in one Passamaquoddy (Algonquian, USA) community, and how video- and web-based media have opened up new opportunities for wider access to both the process and the products of revitalization work, we conclude that documentation-revitalization workers should adopt a more nuanced approach, including print literacy where appropriate, but not simply assuming it as a default fundament to all community documentation-revitalization efforts. In order to avoid the common outcome of hard-won books sitting on the shelf while people go back to watching dominant-language soap operas on TV, we must denormativize the academic's comfort zone of print-media production, and consider which mix of technologies is actually more likely to usefully reach the greatest range of community members, particularly in training them to produce such materials themselves.

2. Material costs of writing

Writing is, fundamentally, a technology. It is an ancient one, to be sure, but a technology nonetheless. Hence it has to be invented, shared, and taught, if it is to be used at all.

The benefits of this old technology are clear: archival stability/reliability, simple and ready searchability (especially compared to sound and video) and especially, its material low-techness and its baseline cheapness as a medium for recording language: pencil and paper, charcoal and stone. We can add to this the common claim that increasing the written realizations of a language often increases its prestige, particularly relative to a competing major language that has an established written form. ("Writing makes it into a real language, not just a 'dialect'" is a common sentiment.)

And a few of its basic drawbacks are equally familiar: the problems of complete interpretation due to the written word's even greater susceptibility to decontextualization; and its dismal capacity to capture the full prosodic and visual components of a speech act. Despite the various patches and workarounds we have developed over the millenia, the anemic representation of prosody remains, I think, the worst problem, the worst sheer inadequacy introduced by the use of this technology we call writing. It has certainly hobbled linguistic science's investigative priorities, leaving us linguists all still radically underappreciative or even dismissive of the importance of prosody in documentation and analysis, as well as pedagogy/teaching.

Now, we are so used to the demands of this technology that we also take for granted the material costs of basing community language work in writing. The reproduction, distribution, and transport of substantial print materials are not cheap, particularly in the small private print runs that, say, producing a small community-use dictionary often entail, and even more so when communities are not located near to printing facilities.

There is still a further cost to prioritizing print. The physical commitment of resources demanded by a print run entails a much greater expenditure of work hours in proofing the materials to be set in text. Since every typological error in transcription shatters the fundamental information to be conveyed. Audiovisual material of course can have errors of their own, but barring slips of the tongue, the potential for error in conveying the core material of the language is far less. Put simply, the preparation of a written text is a long, drawn-out process; the preparation of the same audiovisually recorded text to make it equally shareable is not much more than the recording time itself---anything more, is additional editorial modification or annotation.

Compare this to current-day digital media---CDs and DVDs. Assuming pre-existing end-user access to the relevant reader technology (CD players, DVD players), the per-unit cost of delivering audio and video material corresponding to multiple books' worth of information is radically lower than that of printing and distributing even one single book. For communities with substantial internet access, assuming downloading/streaming demands of time and bandwidth can be managed reasonably, these costs get even lower.

The obvious counter-response here is precisely this: yes, it's cheaper to churn out audiovisual materials with one ratty laptop and a stack of bulk-purchased blank DVDs, but what about that cost of establishing end-user access to devices that read them back? What if they don't have DVD players at home or internet access?

Well, of course printed materials make sense as a focus if technology-access considerations force it---e.g. limited access to electricity, let alone current digital media technology---but the number of endangered language communities under those limitations today is constantly shrinking, and I'd be willing to bet that the majority of communities this audience is working with have at least community-level access to digital video, be it VCDs, DVDs, or other means by which to access our current plethora of digital video file formats.

I would even venture to claim as a general though by no means exceptionless rule, that the degree to which a community is isolated from precisely this sort of technology rather tends to track the degree to which it is insulated from outside linguistic pressures.

I'd emphasize that this is unidirectional, not bidirectional: i.e. without electricity, you may still have tons of outside linguistic pressure, to be sure. But with electricity, you pretty much always do: it's been my experience that as soon as electricity comes in, communities also immediately nab television and digital video--- and their concomitant linguistic pressures.

(It's these communities to which I'm expecting the present line of argumentation to apply. If we're truly out in the middle of nowhere, then of course writing is a materially low-tech approach that can readily be applied with ambient materials, even if this literally means charcoal on stone.)

Finally, when both written-text technology and audiovisual technology are both relatively new in their introduction to a community, all other things being equal, the latter is likely to supersede the former in uptake, simply because of its more direct interpretability. Under such circumstances, audiovisual media tends to be more immediately accessible, and therefore more effective as a means of distributing information.

3. Non-material costs of writing

Print literacy also carries a serious non-material cost. And this is perhaps the bigger problem.

In endangered language contexts, perhaps the most familiar and heartbreaking cost is the phenomenon of orthography wars: the factionalization of choices in writing system across any number of personal, political, and intellectual alignments. Years upon years spent hashing things out, digging in heels, digging out heels, satisfying the needs of disparate groups—all at the expense of time spent supporting and developing real-life, face-to-face use of the language on a daily basis.

Orthography wars seem like needless wastes of time to the average linguist, but of course they result from real concerns: writing can become a symbol of identity along any number of parameters. In particular, divergences or similarities between proposed practical orthographies and those of the locally dominating languages form a further, rich source of complication and conflict. Similarly, there can be resistance to writing itself as a foreign practice. Whatever their social source, all of these result in further fracturings to an already threatened speech community. And as such, they are a cost of writing that should not be taken lightly.

Related but perhaps most pernicious, however, is the consequences of the educational overhead of writing. As academics, we have been writing all of our lives, and we tend to take for granted how much training it takes to be even a passive user of writing, i.e. a reader, let alone an active writer. Typically this training in writing starts at a young age, often even while we are still acquiring our L1(s), and continues with regular, reinforcing use for the ensuing decades.

Contrast this with an elderly speaker who has used the language all their life without ever reducing it to writing. Even if one is literate in another system (which can then be a hindrance in itself), it is generally always a slow and painful task to learn to write in one's heritage language for the first time, no matter how transparent and learner-friendly the orthography is.

All of this becomes clear, of course, when we introduce a literacy program into a community with little to no tradition of writing in the heritage language. But for those of us who have not had this experience, the sheer difficulty of learning to write one's unwritten language for the first time ever---especially for older new writers---often comes as a surprise to academics, and academic linguists especially. Since we

are not only comfortably literate, but also spend much of our days jumping from spelling system to spelling system just to read through one linguistic article citing examples in several different languages. Perhaps this ease of transorthographic meandering is why when users-to-be experience the shock of writing the heritage language for the first time, and all the ancillary problems thereof, this rarely encourages those of us charged with advising or even running revitalization work to pursue alternatives to written literacy as the primary first step in such efforts. Literacy is still more often than not seen as the foundation.

(This is not to say that audiovisual materials are without any non-material overhead: most, however, lies in production, rather than end use. And even here, it is certainly easier to train someone to point and click a camera and mike---and get at least passable documentary results---than it is to train them to produce comparably accurate transcriptions. Basic audiovisual production training is not only more immediately accessible, thereby increasing community-level self-sufficiency and autonomy in documentation/revitalization work---let me say that again---but in some cases might open up further economic opportunities for those so trained. In general, audiovisual production experience is likely to work out as a more broadly marketable skill than mastery of an endangered language's orthography.)

The fact that writing carries with it a massive overhead in user training can have quite destructive effects, in creating a set of haves and have-nots in a skill institutionalized/rendered crucial by the choices/ prioritizations made by language workers. In particular, print literacy can create a generational gap right down the middle of revitalization efforts: youth read and write but do not speak, and elders speak but cannot read and write - which often results in elders being excluded from teaching for this very reason. Herein the ideal of children having language lessons at school reinforced by time with elders at home is rather shattered.

This is precisely what I have observed in the community that I work with. Since the 1970s, the Passamaquoddy language has had a standard orthography that by all accounts is a good one. The key problem is that the 1970s are also precisely when language shift began in earnest. Such that fluent native speakers almost uniformly have not been schooled in the system, and the bulk of those who have---i.e. subsequent generations of schoolchildren---are effectively non-speakers.

Only a handful of fluent/native speakers can read and write: almost without exception, these are just the small set of individuals involved directly in documentation and teaching work. The speech community as a whole is not literate in this system.

This in itself would not be a problem, except that the strongly literacy-focused nature of community documentation/revitalization, particularly in the school system, has flatly intimidated substantial numbers of speakers out of what might otherwise be much more significant participation.

Time and again I have heard this refrain from speakers: "I'd like to do something to teach the younger generations, but I can't read or write the language."

The relative inaccessibility of the writing system to speakers---who are by and large fully literate in English---engenders the full range of reactions we might expect: assertive rejection of the need to write it at all, or at least according to the standard orthography; or a somewhat wistful lament that the writing system is beyond their ability to learn.

None of these responses is particularly helpful or conducive to maximizing vibrant participation by fluent speakers, and the overall dynamic serves to ghettoize active language work into that small corner of the community where literate fluent speakers do their documentation work.

The materially reifying nature of writing has a further drawback. It can also draw attention away from the primary problem of maintaining and expanding the domains in which the language is richly used: print media production creates an illusion of great work being done for the language, even as

community speech-use practices can continue to dwindle.

In short, the hard-working language activists can produce fine fine books, which community members then proudly display on mantles and coffee tables, but rarely use actively. This again is something I have witnessed in the community in which I have worked: the last fifteen years or so have seen intensive effort on the part of the strongest and most linguistically trained speakers that has culminated in the recent publication of a truly excellent print dictionary, a masterpiece of lexicography and a monumental work all around. The trick, however, is to make sure that it is not just a beautiful gravestone, but is instead a touchstone for a living, breathing use of the language by a rich range of speakers.

4. Positive suggestions, and reframing the utility of writing

And I have good news to report in this domain. Despite the fact that the production of this dictionary has come perhaps at the cost of time setting up immersion and master-apprentice programs, conversational get-togethers, and all the other truly crucial/essential efforts for reclaiming spaces of community language use, this great chunk of text is now moving into a new stage: acting as the foundation for an extensive online talking dictionary (see the Passamaquoddy-Maliseet Language Portal http://vre.lib.unb.ca/passamaquoddy/splash, and the earlier dictionary at http://www.lib.unb.ca/Texts/Maliseet/dictionary/) which also already incorporates transcribed and glossed videos. It remains to be seen, still, how much this more accessible version will allow non-literate speakers to participate in serious revitalization work.

So this has, perhaps, been a fairly negative, "anti-" talk. That's not my goal, however. The purpose of defamiliarizing writing and dislodging it from its crusty old pedestal here is to free up spaces and resources for powerful alternatives.

To reach these, we might first ask why academically trained language workers so reflexively turn to the reduction of spoken/signed language to writing, as the first tool in our box. Well, we all become slaves to our technologies, of course---hence the ancient and cross-cultural equation of education to literacization.

So this is where books come in, as education, as the pre-eminent way to maintain and propagate information.

What, however, is our goal?

To save the language or to save the speech community?

As documentarians, we may find ourselves prioritized to save the language itself, i.e. to produce documents recording as rich a sample of the speech community's linguistic practices as possible. But as revitalization workers, and indeed as moral/ethical agents in the world, it is definitely our job to do what we can to save or reconstitute or build anew the speech community.

To do this, near as I can tell, is to find ways to recover and reconquer the former territory of the language in social space. (Or even new territory.) Engaging with the psychosocial causes and consequences of how this territory was lost, working to reconfigure lifelong individual and group habits of language use and especially non-use---just plain getting these spaces back into vibrant language use---this is the hard task of language revitalization.

To the extent that writing can aid and enhance these efforts, needless to say, it should be used and developed. But when writing becomes an end unto itself, or even just a tool whose costs are underestimated, or worst of all, a means to the pure schoolification of heritage languages (= just another form of ghettoization, another form of loss of space)—then we have taken several steps backwards, and

probably shot ourselves in the foot, to boot.

In seeing writing as a means to an end, we as documentarians should carefully consider the self-serving (or just plain selfish) nature of developing difficult-to-learn but fully-phonemic practical orthographies. This is generally in the name of offering an accurate phonemic guide for learners, but in practice it often works out more to ensure that when native speakers put pen to paper, they are creating quality documentation for us. This is saving the language.

Two-tiered systems of fully-phonemic and hypo-phonemic orthographies, such as those developed by Pam Munro et al. for several Zapotec languages, are for saving the speech community. These systems prioritize the ability of ordinary folk to use this technology simply and easily to expand the range of use of their languages.

The topic of this paper, then, is part of a broader set of questions: in language revitalization efforts, to what extent are we subtly and unconsciously still prioritizing the needs of participating academics over the needs of the speech community?

Note for example how frustrated some of the audience must be that I have given you only an oral talk: no handout, no PowerPoint. Already we have an expectation that I will meet your demand for the reinforcement of writing making language visual, more a concrete product than the living, discursive process it is.

Consider these kinds of subtle pressures: when, as many do, endangered language communities first ask for a dictionary, yes, it's their choice, not the participating outsider academic's. But it's also likely a deeply constrained one: they're asking for what they expect to get out of an academic, both perhaps from personal experience with their local educational system and what sense it gives them of how language and academic work relate; and also from the baseline options the academics themselves are likely to offer first.

As advisors to communities seeking to revitalize their languages, how often do we first and foremost suggest programs to increase the social spaces for the language, doing the difficult social engineering to make that happen, and to produce tools whose primary and direct use is to expand and retake language-use territory? These non-material efforts, these projects that produce no material output, only changes in people and practices, are, near as I can see, what we need to focus on most.

It would seem that emphasis on literacy is best motivated in communities where transmission is not terribly threatened: here this ancient technology comes to the fore as precisely one more way to further expand the language's realms of use. However, as I have witnessed firsthand, there are also communities where literacy has served to limit access precisely where it's most needed, to further shrink already shrinking potential spaces of use by native speakers and learners alike.

We need, then, a critical sense of what's appropriate when and where and with whom, rather than a simple reflex to pop out a print dictionary and some readers/textbooks. In seeking to balance the uses of print vs. audiovisual media, it helps to see where each of these approaches lays its costs. Print media offers relatively cheap material costs (except as described above), but very heavy non-material costs. Audiovisual media demands heavier material costs (sort of), but much lighter non-material costs. With always limited resources of money, energy, and time, what do we prioritize? The answer, of course, is that there is no simple answer of "writing = bad, audiovisual = good".

Instead, what we can develop is an attention, a mindful challenge to denormativize our reflexive turn towards writing as the fixative and the concretizer, and instead to watch and listen and respond to what we observe, and choose our tools and envisioned products carefully and thoughtfully, remembering always that like language itself, successful revitalization/conservation work is not the finishing of a product but the sustaining of a rich set of processes.