Recent currents in the study of culture and communication have grappled with materiality and language. While these currents may differ in disciplinary lineage, they converge in the belief that there is no transcendent meaning or informational essence behind language, that meanings are specific to the physical forms and material channels by which messages are inscribed and transmitted. This interest in materiality has netted a shift in research focus across disciplines away from interpretation and towards the nature and features of media and the materialities of communication—that is, the technologies, the machines, and the social and institutional networks that shape, direct and process various forms of cultural expression and exchange. This engagement is driven by certain ‘media materialist’ approaches that conceive of communication as the circulation of data—of any type, linguistic or otherwise—through technologies and networks. While thinking about language as material would seem to be compatible with this more general framework of media and ‘machinic’ materialism, the relationship of a specifically linguistic materialism to those ideas is nevertheless problematic.

A major complication is connected with translation, which not only acquires conceptual prominence in the most influential media materialist models, but a universalist character, as a form of universal consciousness or a process of universal translatability. McLuhan’s brand of media materialism, for example, which sees ‘media as translators,’ anticipates a future in which language and communication might be completely bypassed by way of media and gadgetry that externalize the entirety of human thought and bodily experience. His vision of translation is a fantasy of pure communion, an ideologically and technologically seamless union of minds. Friedrich Kittler’s information materialism similarly attempts to bypass language and meaning by focusing exclusively on material networks and technologies used for the processing, transmission, and storage of relevant cultural ‘data.’ The computer enters the scene as universal translator; once data is digitized, he contends, “any medium can be translated into any other.”

Because translation is positioned strategically in these materialist frameworks, it emerges somewhat uncritically. It provides conceptual support for the feedback loop—that idealized and continuous, intermedial flow of information—while the main objective is to focus attention on media themselves as shapers of meaning and hubs for social protocol and practices. But the universalist connotation that emerges in forecasts of seamless translatability via ‘universal’ code has been duly criticized; warns WJT Mitchell, it “underestimates the effects and difficulties of translation.”

Translation carries increasing metaphorical weight across disciplines and that is perhaps
symptomatic and instills the prospect of reassessment with a sense of urgency. Extending beyond the linguistic realm and qualified as cultural translation, it has become emblematic of that dynamic process of meaning-making, whether by exchange, distribution or circulation, between or through people—individuals or groups, or things—media hardware or global networks, across time and space. George Steiner famously made translation commensurate with the broadest general category of human communication by recognizing the inevitable singularities within languages: “inside or between languages, human communication equals translation.”

Nicholas Round chronicles the most frequently encountered metaphorical mentions, noting a problematic universality in many characterizations of translation. What motivates this extension of translation to a wide variety of disciplines is the underlying idea that translation amounts to any “attempts at organizing or applying knowledge”—“physical scientists translate data into accounts of the world, historians translate evidences into narrative, philosophers translate experience into theory.” Round is anxious about linguistic translation getting lost within this expanding range of epistemological and interpretive practices. With similar trepidation, translation scholar Anthony Pym asks, “Has translation really become so dramatically important?”

And with these conceptual extensions comes a technological aspect: translation now refers to the renderings of texts between ‘natural’ and ‘national’ languages and also to the transformation and transmission of all manner of cultural texts into and out of digital code. Nevertheless, the consideration of linguistic translation practices does not merge well with the study of media—despite the fact that digitization and networking are radically changing the way translation is being organized and carried out and are mounting incredible challenges to the way translation—and languages—have been conceived.

One might consider several reasons for this neglect. First, theories of materiality, by necessity, are run through with monolingualism—after all, translation has traditionally been considered most effective when invisible—it’s often an afterthought. Furthermore, McLuhan and Kittler’s work in particular is very much anchored within specific cultures of analysis (Anglo North America and Germany, respectively), despite their globalizing and universalist rhetoric. Second, where the concerns of media studies intersect with those of cultural studies, prioritizing language as a marker of cultural identity means resistance to the consideration of languages as contingent and constructed codes, as devices that might also form part of any given media-technological network. Third, these questions are of concern to translation scholars and practitioners and would perhaps be more suitably dealt with by that discipline.

**Translation Studies: A View From Within**

It’s important to note, however, that recent scholarship in translation studies shares materialist concerns, not only in the form of ‘deconstructive impulses’ but also its efforts to recognize translation as a dynamic and historically situated process. Studies by Liu, Venuti and Hermans emphasize the historical and cultural conditions that precipitated particular translations and ways of translating and worked to produce the equivalences that might otherwise be taken for granted as already given. Sakai’s keyword description is representative, and characterizes ‘translation proper’ (after Jakobson) as a discursive construct that hides the necessary heterogeneity of each and every translational act. This view of translation is produced by a particular translational regime, one that consists of “an institutionalized assemblage of protocols, rules of conduct, canons of accuracy, and ways of viewing.”

The manufacture and maintenance of translational equivalence by material means challenges linguistic boundaries, questions translational conventions, and prompts the upending of orthodoxies in language use and production. It liberates the translator (theoretically speaking), making the processes by which she operates and is integrated visible, variable and radically contingent. From the perspective of translation studies, then, the cross-disciplinary extension of translation could be regarded as problematic if it serves to mask these revelations under a simplified view of translation as disambiguated informational flow.

Much of the resistance to notions of the universal in translation and language results
from the recognition, on the part of theorists and practitioners alike, of the ‘invisibility’ of translation and the translator. Venuti has shown that this invisibility is a symptom of the desire for ideals of fluency and transparency, as well as dependence on these, as imposed and maintained by standard ways of reading and evaluating translations: “The illusion of transparency is an effect of fluent discourse,” which is achieved by “the absence of any linguistic or stylistic peculiarities.”

Non-fluent texts are considered linguistic mutations, written in non-languages, referred to variably, and often negatively, as “translatsese, translationese, translatorese.”

To confront this concealment, Venuti advocates an approach that signals the “foreignness” of the source text, a translational strategy of “abusive fidelity” that resists transparency through linguistic tinkering, invention and experimentation.

While such approaches may be translator- and author-driven strategies—resistant acts against institutional norms and “rules” of standard language practice—similar ‘abuses’ are in evidence in ‘new’ media and pertain to the automated production, processing and distribution of language. Emily Apter links these strategies to language that is ‘machine translated’—both in terms of a “Netlish” that emerges from the Internet as global linguistic hub and one that mingles world languages and machine codes, displaying a multitude of linguistic anomalies and hybrids. Apter sees this as “language-in-a-state-of-translation”, where results are liminal, in process and readable.

The challenge to the invisibility of translation thus merges with the move towards conceiving of translation as a material practice, part of a network of social and institutional activities and technologies, and invites critical reflection regarding shifts in the status of translator. Taking cues from media and cultural theory, Chesterman advises translation scholars to look into “what networks exist...what the various nodes are, both human and non-human,” and to delve into undertheorized areas such as team translation and co-editing. The translator hereby undergoes theoretical reassessment in the same way that post-structuralist thinking prompted the fragmentation of the singular author-creator. It should be recalled that the focus on the role of technology in the circulation of discourse in studies adopting a media materialist approach helped to tear down old models of creative authorship by reconceiving cultural production in terms of collective, collaborative labour—whether as human authors, producers, readers, or a combination of human and machine processes. In this theoretical climate, one sees little reason to insist that the ‘translator’ refer strictly to the human translator—especially when posited as a perfectly polyglotted professional possessing of epistemological privilege.

Conflicting Natures: Language and Code

The mingling of world languages and machine languages in the digital realm has thus sparked deliberation about the ‘nature’ of human language from the standpoint of translation and technology. Studies from translation and textual criticism meet in the middle when comparing language and code—the main objective is to assess how code fits into theorizations of language. For instance, Hayles suggests that “code implies a partnership between humans and intelligent machines in which the linguistic practices of each interpenetrate the other.” Apter concludes that the language of code is something only emerging, “masked by conventional language.” The suggestion, by both Apter and Raley, that programming languages may be offered as degree programs at post-secondary institutions might seem fanciful, but results from rethinking the materiality of human languages, writing and coding practices, prompted by confrontation with machinic counterparts.

But the contrasts mobilized beyond translation studies to problematize the notion of universal translatability—between language and code, between the human and the machinic—nevertheless contribute to the continued marginalization of certain “lessons learned” from translation theory. Different disciplinary concerns, not surprisingly, foster different results, but the increasing visibility of translation across media and across disciplines may have the paradoxical effect of rendering language and linguistic operations newly ‘immaterial.’ While the technologization of discursive environments inspired literary and media scholars to consider the materials of ‘human’ language—the ‘stuff’ of speech and writing—as media among media, the extension of these
explorations to ‘new’ media—as the investigation of code and coding practices—has prompted a re-naturalization of human language as a natural ‘given,’ something essential and ordinary. That is, while scholars focus on ‘materializing’ code and coding practices by interrogating the ways computer architecture and systems change the nature of information processing, they inadvertently reinstate non-machinic language as code’s naturalized ‘other.’

Code & Software Studies: Going Deeper

Despite certain convergences in theoretical foundations, then, disciplinary focus and strategy result in divergent conceptions of translation and language in separate corners of the academy. In the materially-minded sub-discipline of Code & Software Studies, the attention to mechanisms and structures by which language is processed transforms into a concern for coding and programming and the effect that these so-called rationalist and logical procedures may have on ‘natural’ language processing (of the non-computational kind). One effect of the material approach to code has been to move immeasurably closer to the machine, to bypass what Kittler has referred to as the ‘eyewash’ at the screen interface, to interrogate machine architecture, to trace the way computational discourses have been inscribed into hardware and software. However, as the materiality of the computer’s deep structure comes to light, the language at the surface often becomes newly mythologized as an unknowable, yet familiar, unity.

For instance, Kittler reinvokes natural language by lamenting its effacement—not only by the hierarchical layering of code, but by the concealment of this code behind so-called user-friendly interfaces. Noting that “programming languages have eroded the monopoly of ordinary language,” he recognizes a coding “chaos” that shows remarkable continuity with languages of old: “codes with compatibility problems,” he writes, “begin to grow wild and to adopt the same opacity of everyday languages that have made people their subjects for thousands of years.” Indeed, much of the theoretical discussion that emerges around code and language is tied to the distance that separates the interface from the ‘real’ workings of the machine. This distance between symbolic surface and coded scaffolding is both infinitesimal and treacherous; the invisibility of the computer’s inner functioning lends an aura of concealed impenetrability, if not a more sinister and inhuman quality to writing, knowledge production and transfer. The sentiment behind the well-worn ‘traduttore, traditore,’ [Italian; translator—traitor] has shifted to the computer.

Building on Kittler’s concerns, considerable theoretical effort has been directed towards ‘materializing’ the so-called digital text. Of fundamental concern—theoretically and artistically—is to demonstrate the extent to which coding is also writing, to show that programming continues to be mark-making despite the fact that it addresses machines, not humans, or both. The problem of code and surface becomes an examination of address and readability across code and natural language as distinct communicative modes. The divisions between code and screen language are theorized in terms of surface vs. structure, genuine vs. pretend, conscious vs. unconscious. Emphasizing the radical difference of a concealed and ultimately inaccessible machinic layer, the naturalness of that ‘human’ language at the interface is reasserted. Surface and structure, language and code, become figures for human and machine, and efforts to establish the non-transparency of code fall back on notions that what is essentially human is that which is ‘uncodable.’

Drucker usefully ties the language-to-code problem to fundamental philosophical tensions; language can represent knowledge in a systematic way, but can also exist—be perceived and experienced—as knowledge. However,
she argues that these tensions emerge as an opposition between machine and “language as we know it” in programmable media, because “it is a reductive hybrid version of the one which can be encoded/encrypted in order to serve as the basis of the other.” For Drucker, something must be taken away from ‘real’ language for it to operate electronically; its transfer out of language and subsequent encoding strips it of its material record. Crucially, it is at this moment of loss where the ‘immaterial’ enters the scene; Drucker characterizes it as:

that gap of transformation—like that which used to exist for the typesetter between the reading of the line and its setting into hot type—and also exists between the material of text becoming that of sound, of sound to mind, of eye to voice, of hand to type.

Here, I would add ‘linguistic code’ and recognize translation, broadly understood, as the bridge over this impossibly immaterial gap. For Drucker, however, the immaterial/material dilemma in the machine context is of an entirely different order and thus unresolvable; she contends “you can’t reconcile the need for the machine to work through logic and the capacity of human language to function through and on account of—not just in spite of—its illogic.”

Code artist and theorist Florian Cramer takes a slightly different view; computer codes are ‘writings’ created by humans, and human language also exhibits formal, logical and executable features normally exclusively associated with machine code. He observes that “program code contaminates in itself two concepts traditionally juxtaposed and unresolved in modern linguistics: the structure, as conceived of in formal structuralism, and the performative, as developed by speech act theory.”

While this insight can be, and has been, fruitfully employed to reflect back on human language, a curious outcome of the linguistic face-off between human and machine is the extent to which ‘natural’ language has come to seem uncontaminated and unprogrammed, pure in its illogic and unstructured contingency. As the materiality of code becomes more apparent, that of human languages is paradoxically suppressed.

Machine Translation: A Familiar Failing

The contrast emerges quite clearly in critiques of Machine Translation (MT) technology, where code and language face off in the ultimate test of the machinic treatment of language; it’s no surprise to discover that the machine has always already failed. The drive to develop Machine Translation technology is often regarded as just one more misstep in the parade of doomed linguistic projects littering the history of human language since the alleged Babelian confusio linguarum. Read as an audacious search for antidotes to linguistic (and semiotic) multiplicity, the move towards mechanization suggests universalist and absolutist aspirations.

Yet, despite this failure, it is still the job of translation practitioners and theorists to acknowledge the strides that have been made in MT technology since the recent switch to statistical and corpus-based methods, and, thus, the very real implications it has for their day-to-day practice. With respect to the increasing “externalization of translation functions,” Cronin sees today’s translators as “translational cyborgs who can no longer be conceived of independently of the technologies with which they interact.” Echoing the information materialists, he emphasizes the increasing presence and integration of MT and Computer Assisted Translation tools and acknowledges the capacity such systems have to retool the industry and individuals. Emphasizing the need to elaborate the historical and social reality of translation in more sophisticated terms, Cronin calls out a harmful and all-too-common trend in writing on translation technology, analyses which amount to no more than “endlessly recycled translation howlers from failed MT projects and the derisive dismissal of ‘pocket translators’ and free MT services on the Web.”

While critiques of MT vary in purpose and scope, they are anchored by several key arguments that directly invoke the materiality of the computer-as-translation-apparatus by reviewing its technocultural inheritance, revealing both an Anglocentric bias and its cryptographic and military origins. Though such arguments are valuable and necessary in critiquing the potential for MT to produce culturally balanced or neutral translations,
the assumption that such translations are possible under different circumstances demonstrates an inherent reliance on certain conventional notions of what translation is, or can consist in—notions that are being profoundly challenged within translation studies, largely by relying on the same materialist and post-structuralist trends. By sidestepping the insights of translation scholars with specific regard to translation practice—both as technology and in interaction with technology—media-cultural analyses of MT that appear to be robust and nuanced critiques are revealed, in some cases, to be simply reinscribing the most commonsensical assumptions about translation and language.

While this analysis sketches broad theoretical tendencies across disciplines and recognizes that strategic, practical and micro-agendas may force concerns such as these to the sidelines, it nevertheless serves to highlight emerging paradoxes when keywords, concepts and approaches are extended across areas of study. With respect to the way contrasts between language and code impact on views of Machine Translation specifically, it is hoped that the insistence on protecting the human domain of language from Machine Translation's heavy hand will not completely eclipse the recognition and implications of new language and translation practices emerging precisely due to these new technological configurations, those which permit much broader imaginings of Machine Translation. One might consider a range of emerging practices here, the most significant of late being collaborative translation and translation volunteerism on the web, including initiatives such as TED's Open Translation Project and Wikipedia: Translation. Other manifestations include subtitle request boards, as well as translation groups and multi-authored texts on P2P sites, and a full range of computerized language play, including the creation of multilingual fansubs and scanlations, linguistic experiments in the form of translingual music videos, film dubs and codework.

Christine Mitchell is a PhD Candidate and Course Lecturer in Communication Studies at McGill University (Montreal). She holds a BFA in Art & Design and an MA in Russian Linguistics, both from the University of Alberta. Her research focuses on conceptions and representations of language and translation in communication and culture; her dissertation investigates machine translation and the materiality of language. She has recently translated a Soviet-era science fiction novel from Russian into English.

Notes

6 Ibid, 48.
7 Anthony Pym, “Translation technology as rupture in the philosophy of dialogue,” in Translation Technologies and Culture: Proceedings of the Sixth Portsmouth Translation Conference, ed. I. Kemble (Portsmouth: U of Portsmouth, 2007), 1-9. With regard to such “conceptual extensions,” he notes that this is “a little frightening for someone dealing with the everyday professional realities of translating texts between languages.”
10 Ibid, 74.
12 Ibid, 4.

16 Apter, 237.

17 Raley predicts that “The different kinds of institutional training programs developing now … suggest that we will indeed see programming languages included within degree certification programs in literature and the arts at the undergraduate and graduate levels.” Apter is more tentative, imagining a point “when departments will debate whether to admit programming languages as legitimate language fields of comparative literary study.” See Rita Raley, “Interferences: [Net.Writing] and the Practice of Codework,” *EBR*, http://www.electronicbookreview.com/thread/electropoetics/net.writing; and Apter, 227.

18 For an overview of keywords and concerns of this emerging sub-discipline, see *Software Studies: A Lexicon*, ed. Matthew Fuller (Cambridge, Mass: MIT Press, 2008).


26 Ibid, 217.


28 Ibid, 218.


31 For example, Cramer contends that “computers…might teach us to pay more attention to codes and control structures coded into all language.”


34 Ibid, 113.

35As W.J.T. Mitchell has observed, this line of critique emanates from media theory’s “obsession with war machines,” which “traces every technical innovation to the arts of coercion, aggression, destruction, surveillance, and propaganda spectacle.” See Mitchell, 206.