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[transcript]

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Situated in Translations

Cultural Communities and Media Practices

Reassessing the Situation of the Text in the Algorithmic Age

William Uricchio

In the course of *Rambo 2: First Blood* (1985), the eponymous Caucasian hero single-handedly kills 69 mostly Asian characters. And yet, says Pico Iyer, "Rambo has conquered Asia. In China, a million people raced to see *First Blood* within ten days of its Beijing opening, and black marketers were hawking tickets at seven times the official price." (Iyer 1988: 3) In India, five remakes of the movie were put into production, and, in Thailand, 15-foot cutouts of the American vigilante towered over local theaters. For those who have seen the film, Iyer's reports seem anomalous, even unsettling. In the West, *Rambo 2* appeared to many as a crudely revisionist effort by some in America to finally win the Vietnam War. The film was singled out for its particularly brutal killing of nameless Vietnamese characters, many of them, in fact, played by actors of Chinese ancestry. How, then, could this lone white character gather a following among some of the very people portrayed as victims of his vengeance?

We know, of course, that audience reception is a rich and unpredictable terrain, and that a bit of well-targeted research could yield any number of plausible readings with which to comprehend the film's popularity in some circles. We have well-developed traditions to gather this sort of evidence and solid theories to help make sense of it. But this essay will not take up the work of reception; rather, it will address the *situation* of the text—the contextual and often material conditions and practices that position and frame the text. In the case of *Rambo 2*, we might look at how the promotion of the film played to regional political and social dynamics; or at the role played by the languages dubbed in for the Asian victims as part of the film's localization process. These and other practices situate the narrative in a particular way, enabling Chinese viewers to experience something quite different from their counterparts in the US market in the mid-1980s (just as those viewing the film in the US in 2018 see it in a new situation). The situation of a text is a *condition* of its reception and thus distinct from the text's reception. However, reception can certainly function as part of a text's situatedness, as a book cover emblazoned with bestseller status suggests.

This is not a new insight: scholars in various fields have already described some of the process' mechanics. Thomas Kuhn's work on the history of science discusses *paradigm* shifts—when taken-for-granted truths suddenly collapse in the face of a new situation—offering a fresh understanding of an existing data set. For example, Copernicus' heliocentric model of the celestial spheres displaced Ptolemy's geocentric model. The implications were profound, with long-held epistemologies suddenly appearing naïve and myth-bound. A new set of assumptions completely reframed the results of empirical observation, giving them fundamentally different meanings. Copernicus' work can certainly be inscribed, as Kuhn shows, within a 'scientific revolution,' but it was also part of a larger process of reframing, of restitution, in the form of the circulation of printed tables enabled by the printing press and in the form of the Reformation, with its wide-ranging critique of inherited orthodoxies and truth systems, both religious and cosmological. This move beyond the scientific domain to a more encompassing cultural situation was taken up by Michel Foucault with his concept of the *episteme*. An episteme "defines the conditions of possibility of all knowledge, whether expressed in a theory or silently invested in a practice." (Foucault 1970: 183) The radically shifting historical status of madness, or punishment, or sexuality in Foucault's work illustrates the profound implications of epistemic situation on the lives of people.

These grand theories—and ensuing realities—of situation owe much to Gaston Bachelard's generative idea of epistemic rupture. But there are also more fine-grained and quotidian approaches. In this regard, one might invoke Gerard Genette, whose notion of the *paratext* looks specifically at the situation of a text through peritexts (elements on the periphery of the text such as the author's name, the publishing house, and bestseller proclamations emblazoned on the cover) and epitexts (elements at a distance from the text that nevertheless refer to it, such as reviews and advertisements). These 'thresholds,' to invoke Genette's language, shape our expectations of a text, inform our reading, and radically contextualize our approach. As with Kuhn's paradigm or Foucault's episteme, their operations are most visible at times of change. Some of my and Roberta Pearson's work has addressed these issues, considering Shakespeare's or Washington's fast-changing cultural status in late-19th century America where, for example, they shifted from being popularized or even neglected to being 'sacralized,' resulting in texts with contradictory paratexts. These contradictions revealed underlying social tensions regarding national identity and values, with particular paratextual strategies adhering to or targeting particular social formations, as outlined in scholarship on the period's contested cultural status (Levine 1990; Uricchio/Pearson 2014).

Paradigms, epistemes, paratexts ... these and other concepts all attempt to account for the shifting situation of reception for cultural artifacts—a task I wish to continue in this essay, but with two twists. Firstly, I would like to address a number of recent changes in cultural production that suggest a powerful change in the situation. These have been accruing for several decades and have generally to do with the increasing digitization of texts and networking of distribution systems. These processes have yielded a number of qualitative shifts that bear directly on inherited value systems. Secondly, I would like to pull on a still-nascent but fast developing dynamic within this process that has distinct implications for the notion of situation itself, as well as its operations as an intermediary. I will consider the potentials of algorithms, and artificial intelligence systems generally, to disrupt the binaries of text-reader and text-context by intervening in both relationships and recursively rendering them responsive. In both cases, I will be concerned with the media and notions of mediality, although the implications are broader. These two approaches – one to today's changing situation and the other to the changing operations of situation—fall within the contours of the term *translation* in the Middle English (14th century) sense of transference, removal, or conveyance from one person, place, or condition to another.

THE CHANGING SITUATION

Digitization, globalization, the paroxysms of late capitalism ... a handful of frameworks and causal agents tend to be invoked to explain the rapid changes to economies, identities, values, and connectivity characteristic of the late 20th and early 21st centuries. The speed and intensity of these developments in many parts of the world have led to cultural spaces awash with both legacy and emerging practices. With growing tempo, long-revered artifacts have become unmoored from established frameworks, while new forms coalesce and dissipate with little apparent logic. The example of *Rambo 2*—floating among different linguistic and cultural frameworks, audiences, and exhibition contexts—offers a slow-paced 1980s example of these dynamics and their implications for reception. With the advent of the 1990s, the World Wide Web and World Trade Organization in their very different ways signaled an intensification of these trends, with implications for the situation of cultural production and reception. The following section briefly considers several of these developments.

CONCENTRATION/DIFFUSION

Beginning in the mid-1990s, two contradictory trends began to pick up speed. On one hand, the concentration of media ownership, already evident after the Second World War, began to accelerate. In part triggered by technological changes such as satellite and cable distribution, fueled by deregulation, aided and abetted by transnational economies and treaties, companies and particularly media organizations began to cluster both vertically (multiple newspapers or television companies joining together) and horizontally (gathering television, film, music, print, and

telecom companies together under a single holding company). Digitization and an increasingly global economy further stimulated the process, emblematized today by figures such as Rupert Murdoch or companies such as Bertelsmann and The Walt Disney Company. Although a global dynamic, it has been most pronounced in the United States. In 1984, fifty independent media companies owned the majority of media interests within the United States. By 2017, that number dropped to six large companies with control of ninety percent of the market.

At the same time that media corporations were devouring one another in a feeding frenzy that left but a handful of bloated survivors, networked computing began its inexorable spread. And with that spread came radical diffusion and disruption. Individuals could produce and distribute their own media texts, whether blogs or garage band sounds; they could pirate music, television programs, books, and films, sharing their ill-gotten gains with friends; they could shift consumption patterns by spending their money on games, phones, and apps. Diffusion of the means of production and access to the means of distribution grew at pretty much the same pace as concentration within legacy media industries.

Suffice it to say that the confluence of these two contrary movements, concentration and diffusion, has led to considerable churn and uncertainty. Ever more powerful computer processors, ever faster connectivity, and ever lower costs have fueled new possibilities, whether industries such as digital gaming or social formations such as the countless interest groups that make use of Reddit. But at the same time, the braking mechanisms of government intervention (anti-piracy schemes, surveillance) have combined with continued corporate mergers (media content companies' acquisition of the 'pipes' that distribute the internet, compounded by threats of net neutrality in the US), all while a new and superior breed of media conglomerates have entered the picture (Facebook and Alphabet). While it is difficult to predict whether we can expect an outcome or must simply face more unexpected twists and turns, the fundamental uncertainty regarding the very ontology of our communications systems has created a new situation, and one that is taking particular forms.

In this fast-changing space of corporate takeovers, fan sites, spam, and surveillance, the situation of texts is uncertain in the sense that their ownership, provenance, and therefore implication is of uncertain origin. Fan sites turn out to be closeted corporate creations, branded platforms are in fact owned by the competition, and individual agency in social media sites is anything but guaranteed. In a world where the consumer has morphed into a content producer (YouTube, various social media, massively multi-player games, etc.), and where online cultural participation can easily violate expansive intellectual property laws, inherited notions of ownership, author's rights, and fair use have lost their clarity.

HIERARCHIES OF KNOWLEDGE

Consider the nature of authoritative knowledge. The appearance of the printing press ushered in a notion of attribution, of authorship as a claim to ownership but also to responsibility. Denis Diderot's *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers*, although penned by a number of late 18th century French luminaries, ultimately owed its authority to its editor, who commissioned, rejected, and at times even encrypted the work of his authors. From the steady publication of charts, maps, and secular texts in the late 15th century until the early 21st century, when Jimmy Wales and Larry Sanger started Wikipedia, authority was bound to the individual. Wikipedia, by contrast, offered a radically new model by harvesting the wisdom of crowds. With largely anonymous collective authorship and editorship, dynamic texts, and discussion rather than certitude on some issues, it has grown to become a massive multi-language project that has eclipsed its print predecessors. As of this writing, Wikipedia comprises more than 40 million articles in 299 different languages. While a small-scale study of science articles published in *Nature* showed that Wikipedia's accuracy was on par with the *Encyclopedia Brittanica's*, Wikipedia's great advantage is that it reveals precisely which parts of an issue are controversial (Giles 2005). By examining a page's editing history, the reader can see exactly which terms are contested and assess the nature of that contestation. In a world where truths are complex, this strategy offers an alternative to assertions of certainty … or silence. Responsibility and, with it, authority are diffused and even anonymous, and yet, in the aggregate, texts function authoritatively while offering the advantages of transparency. The situation of texts and the knowledge they purport to impart is dynamic, a process that encourages consideration and cross-checking rather than blind acceptance. Transparency, in this situation, helps to rework uncertainty, at worst simply demarcating it as such and, at best, turning it into sites of interrogation.

A related dynamic seems to be taking place with news. Where the public was once served by a professional, vetted, and often clearly editorially-demarcated press, platforms such as Facebook and Twitter are increasingly disaggregating news stories from their sources, mixing them with reports of unknown provenance, and sharing them with like-minded communities of readers. Like the Wikipedia example, Facebook's dynamics—including authorship—are often anonymous, its texts potentially mutable, and discussion rather than certitude on some issues prevails. But there are also significant differences. These commercial platforms are not driven by the altruism of the Wikipedia community, but rather by profits—which means clicks. Curation of sometimes vetted texts vies with anonymous authorship to produce decontextualized content with minimal quality assurance. Transparency is absent. And the communities, like the mix of texts, are algorithmically curated, posing a set of challenges that will be discussed in the final portion of this essay. In this setting, in contrast to the related Wikipedia

example, the situation of the text and the status of its claims to truth are difficult to locate and open to question. Once, clearly defined hierarchies of authority and attribution (such as the mainstream press in the US) offered a common national reference point. But this certainly has given way to a free for all. The way that Facebook and other social media disaggregate news from its editorial sources effectively resituates reports into a free-floating position as possibly true or false, with dramatic implications for the epistemological status of the text.

ACQUISITION/ACCESS

The networked era has been good for the consumer sector, and while companies such as Amazon attest to the continued market for physical artifacts, in the media sector, they also reveal the steady growth of access as an alternative. The issue is one that most academics know well from university libraries, in which bound paper journals are steadily being displaced by digital access. Convenience is certainly an issue, since digital issues can be accessed from nearly anywhere, but these subscriptions also have a dark side: when they end, users no longer have a backlog of paid-for issues as they would with hard copy. Access to issues past and present terminates. The growth of companies such as Netflix, Spotify, and Pandora, together with the shifting business models of legacy publishers and even software and games companies, which are increasingly using upgrades for revenue purposes, all point in the same direction: payment for access rather than acquisition has become the new normal.

While this behavioral shift might be understood as a response to mobile lifestyles, or an acknowledgement of the ephemerality of cultural forms, or simply an effort to maximize profits and minimize environmental footprints, it represents a far more profound shift in the understanding of consumption. Digital acquisition generates data, as well as money. And the nature of the data in many cases is fine-grained. Amazon's Kindle tracks readers' behaviors—how quickly they read, where they start and stop; Netflix, like Spotify, tracks usage, extrapolates tastes, and suggests relevant texts. Alphabet took in nearly $28 billion for its third quarter in 2017, a good portion of which represented data sales. Conditions in the US and Europe differ considerably regarding data privacy, with the US having far fewer restrictions, but the use of data generated by searches and acquisition in the aggregate has profound implications for the situation of culture, which we will consider shortly.

TERRA INCOGNITA

A few data points: WhatsApp was acquired by Facebook in 2014 for $19 billion despite having no apparent revenue model. The casual, 'free-to-play' game *League of Legends* generated $1.7 billion in 2016 despite being ... 'free.' And, that same year, YouTube generated $12 billion largely on the basis of opt-out advertisements. From the perspective of classical economics, such exchanges—significant dollar amounts for essentially free services—defy reason. Stranger still, after twelve years in operation, YouTube—like WhatsApp—reportedly has yet to yield a profit (though it seems to be roughly breaking even), despite its revenues and despite well over a billion monthly users. Data obviously play a role in this tale, but what does data that can be valued in the billions pertain to? And who is it for?

An economic rationalist might chalk up these developments to speculation in a market awash with value, a Tulip mania of the early 21st century, or to the winner-takes-all instincts of Facebook (WhatsApp) and Alphabet (YouTube) in acquiring potential competitors at any cost. But their sheer number, the scale of capital valuation, as well as their presence across the media terrain (including the medium of currency with phenomena like Bitcoin) suggest that, like the striking reconfigurations of authority and ownership, something else may be at play. Investments and revenues seem unmoored from traditional notions of value and, in that slippage, constitute a new situation. Networked dispersion, the distribution of knowledge and authority, access rather than acquisition, data traces, and economic movements that defy traditional notions of value are combining with one another to become new conditions for cultural production and consumption. One by one, we can find ways to explain away or temper their radical potential, but together they suggest that something rather fundamental is at hand.

ENTER RITUAL

Like many in his trade, James Carey, a professor of journalism, understood communication as the transmission of information. Journalism, after all, involves seeking out information, vetting it, crafting and contextualizing it, and getting it to a public. Communication theory, due in no small part to Claude Shannon, predicated itself on transmission theories worthy of the telecommunications industry—and indeed, Shannon's seminal "A Mathematical Theory of Communication" was published in the *Bell System Technical Journal*. Transmission entails a simple principle: getting a message from point 'A' to point 'B' as efficiently and completely as possible. 'Sender,' 'message,' 'transmitter,' 'channel,' 'noise,' 'receiver' ... the terms of the metaphor permeate the English-speaking field's academic language. And, for nearly 70 years, communication theorists have tinkered with one component or another of this system in a vain attempt to systematize the messy realities

of communication. A cottage industry of theory resulted and, with it, regulatory responses (censorship, ratings, age limits) and ever more refined advertising strategies. Yet, somehow, the dynamics of communication have remained elusive.

Carey intervened by arguing that transmission, while accurate in functionalist terms, was inadequate for understanding communication as a cultural practice. He argued that ritual, by which he meant the sharing, exchanging, and maintaining of symbolic reality, provided an enabling framework: the situation of communication. More in line with John Dewey's and even Emile Durkheim's notions, ritual occurs when people stand around the coffee machine and trade information, and process and debate the news. With a few prominent exceptions such as Nick Couldry, ritual has not generally been the central concern of media scholars or producers. However, that is changing, and quickly, with the growth of networked digital media—social media—which are little more than enablers of ritual. Consider the just-noted 2014 sale of WhatsApp to Facebook's Mark Zuckerberg for $19 billion. That same year, the *Washington Post* print and broadcast empire was acquired by Amazon's Jeff Bezos for a fraction of that amount: $250 million (the newspaper itself was closer to only $60 million). The well-respected, well-researched, and well-written content of the *Post*, one of the US' leading newspapers, was worth a mere sliver of a content-less platform that simply connected and enabled sharing and exchange. The *Post* is in the business of transmission, and What'sApp in the business of ritual, and to the extent that money reveals cultural priorities, ritual trumps transmission in this brave new world.

Digital networks have enabled ritualistic behaviors, have connected people who are dispersed geographically and socially, drawing them together on the basis of shared interests and tastes. And they have done so by the billions, on a scale that dwarfs familiar units such as the nation. Indeed, the enablement and formal articulation of ritual may well be the dynamic that underlies and binds together the co-incident trends described in the previous pages—the contradictory state of media production and distribution, diffused constructions of knowledge and authority, the dematerialization of acquisition, the increasing value of transactional data, and powerful economic forces that defy long-held notions of production. It winds through each of them, through the communities that contribute to and debate on Wikipedia; that share musical tastes and discussions on Spotify; that are identified as data aggregates, cultivated, and shared as pseudo-personal links by social media marketers on Facebook. And to the critiques of digitization, globalization, and late capitalism, it offers an affirmative and even constructive counterpart.

These new modalities constitute key elements in an emergent situation, framing and mobilizing texts and reception practices in quite different ways to those used by traditional cultural gatekeepers. Obviously, this new situation is more or less relevant in various national settings and demographic segments, and I write this in the US where its presence is strong and privacy protections weak. But its

creep seems inexorable, judging by the steady transformation of legacy media organizations driven to embrace data metrics and social media marketing in an endeavor to lower the average age of participation and stay relevant. It is manifest in new systems of recommendation and assessment, akin to the shift in knowledge and authority mentioned earlier with Wikipedia; it has enabled a transformation of cultural behaviors, from consumption to sharing and display. And it has radically resituated the individual text through dynamic recontextualization, where it appears in mobile and changing textual and social constellations. As the 'fake news' of the moment suggests, this all has implications for meaning and the body politic.

The same text, mobilized through one network or another, presented as part of one textual amalgam or another, recommended by one person or another, can have radically different epistemological status. Again, the operations of Genette's paratexts come to mind, except that the scale and nature of the 'threshold' is distinct. Said another way, the digital situation of today's texts has far greater implications than the disruption of business models, or the ease of distribution, or even the enablement of participation, which have largely dominated the discussion. The diverse 'symptoms' sketched out above combine to point to a significant new situation of textual access, authority, and meaning.

So far in this essay, I have attempted to connect a number of dots that, in the aggregate, suggest the contours of a new situation for cultural texts—media texts in particular. Even in the hasty and unnuanced terms of a sketch, the dimensions of those contours seem significant. A dramatic comparison might liken this shift in situation to the emergence of the printing press and the ensuing struggle to control cultural framing between established and emergent authorities—a move resonant with the 500th anniversary of Luther's posting of his *Disputatio*. The implications of that shift are still being debated, if Elizabeth Eisenstein's and Adrian Johns' quite different readings of the nature of the book are any indication. The point is that it takes time to assess implication. To extend the analogy with the emergence of the printing press, we have barely entered the 16th century with our current digital technologies. The decades that follow may well be a 21st century equivalent of the Early Modern period, when alchemy vied with chemistry and astrology with astronomy as a messy paradigm shift played out.

THE CHANGING OPERATIONS OF SITUATION

Provisos aside, if, as argued in the preceding pages, the situation that frames cultural forms is changing, there are also good reasons to argue that the very nature of situation and its operations are changing as well. At several earlier points, discussion was deferred until a later point in the essay, and that time has come. By 'the changing operations of the situation,' I mean to suggest that situation as context or paratext has undergone not just a change in the sense of one situation or another

er, but a change in the very nature of its framing operations. That latter change in operations involves the active intervention between the text and its user, and between the text and the context. The intervening agent, the enabler of this new situation, takes the form of artificial intelligence or, synecdochally speaking, the algorithm. I have argued elsewhere, and will recapitulate the argument here, that our current deployment of algorithms intervenes in and fundamentally disrupts the subject-object relationship characteristic of the long modern. Certain classes of those interventions bear upon the situation in ways that differ fundamentally from its operations in the past—the topic of this portion of the essay.

First, a bit of disambiguation: the term 'algorithm' seems to conjure up responses disproportionate to the simplicity of its meaning. Formally speaking, an algorithm is simply a recipe, a process or set of rules usually expressed in algebraic notation. The actual values plugged into the algorithm are less the point than the step-by-step formulations that govern their processing. They scale easily, whether working with the relatively meagre data of the pre-computer era or the more than 2.5 quintillion bytes of data generated daily at the time of this writing. The great pyramid of Giza, remarkable for its precise measure, was built using a basic algorithm in the form of a *seked*, a ratio for inclination that scaled large or small. Euclid's use of algorithms to find the greatest common divisor ca. 300 BCE is better known, and both references hint at the technique's deep history. Just as algorithms have a deep history but have also recently achieved new power thanks to their changing circumstances (big data and dramatic improvements in processing and transmission), their cultural use also has a long history as well as a fast-evolving present in artificial intelligence (AI) systems.

Despite their relative simplicity as concepts, algorithms today pose some significant definitional problems, mostly because of a series of misapprehensions. Tarleton Gillespie has noted three broad uses of the term that obscure its meaning. Algorithms are invoked as *synecdoche* when the term stands in for a sociotechnical assemblage that includes the algorithm, model, data set, application, and so on. They reveal a commitment to *procedure*, formalizing social facts into measurable data and clarifying problems into models for solution. And they function as *talismans* when the term implies an 'objectifying' scientific claim. Indeed, one might step back and note that these three uses say much more about social anxieties and aspirations than they do about algorithms. How, for example, can one make a claim to 'objectivity' with an authored protocol whose operations depend on the highly variable character and structure of a particular data set? And yet, a glance at any newspaper will confirm the accuracy of Gillespie's insights into the term's ambiguity.

The definition of the algorithm is also complicated by more insistent epistemological problems. Nick Seaver finds that most discussions of algorithms get caught up with issues of access and expertise. Access is an issue because many commercial algorithms, Google's for instance, are closely guarded secrets. 'If only we had

access…' the mantra goes. But even if we had access, we would immediately face the expertise problem, for most individual algorithms inhabit vast interdependent algorithmic systems (not to mention models, goals, data profiles, testing protocols, etc.), and disaggregating and making sense of them typically requires large teams of experts. But even more troublesome is the fact that any given process usually has many possible algorithmic combinations (ca. 10 million in the case of a Bing search), some of which might be uniquely deployed or used for purposes of personalization or even testing. Individual algorithms and algorithmic clusters are recycled and appear in different settings, with some dating from before World War II still in circulation today. This means that we can never be sure precisely which set of algorithmic elements we are examining, and, even if we were, the work of personalization would limit our ability to compare findings. A further twist appears in the form of disciplinary specificity: The valences of the term 'algorithm' differ in mathematics, computer science, governance, predictive analytics, law, and in culture at large, complicating cross-disciplinary discussion.

Finally, unlike earlier technologies, developments in machine learning have enabled algorithms to self-optimize and generate their own improvements. They can now self-author and self-create. This greatly complicates notions of authorship, agency, and even algorithms' status as tools, which imply an end user.

Together, the various factors described by Gillespie and Seaver fundamentally challenge our inherited notions of culture and cultural production. The humanities research agenda not only has to deal with the implications of radically reconfigured notions of the author, agency, and textual stability, but also has to embrace radically expanded corpora. Data, the structure of the data set, models, software systems, and interfaces all play determining roles in cultural production and, as such, are not only appropriate but increasingly important sites for humanistic inquiry. That said, data and algorithmic activities only partially overlap with the work of situation. Two sites of activity stand out in particular.

THE CULTURAL WORK OF ALGORITHMS: CURATION AND CONFIGURATION

Certain algorithmic configurations draw on user and textual data for purposes of textual curation and customization, combing through large data sets to establish correlations regarding taste and likely matches. In the case of *curation*, the AI system recommends and makes available texts that align with a user's taste profile: the situation entails more than framing and contextualization, and includes the selection and sequencing of texts. So, for example, of YouTube's 300 or so hours of video uploaded per minute, the new work of situation includes bringing relevant texts to our attention (i.e., selecting from among the nearly 160 million hours of video uploaded per year) and sequencing them with other texts, thus actively build-

ing a context. Situation, in this case, literally is the process that selects texts for the user's screen and that contextualizes them.

In the case of *configuration*, the AI system draws on past user behaviors and extrapolated preferences to build a unique text in real time. In the most advanced systems, the process of textual configuration occurs in response to the user's bio-markers. In these operations, the notion of situation as at its most recursive, using a reading of the user's data to frame and construct a text from a set of possibilities. The traditional scenario of situation as the algorithmic extrapolation of user data to simultaneously frame and to construct the text. The AI system transfers or conveys the has here evolved to situation as the framing of the user's reading of a text conditions for meaning in the very process of negotiating the existence of the text. And it is here, with the work of curation and configuration, that we can see the new situational functionality made possible by the algorithm. Not simply another contextual frame, the algorithmic situation negotiates between reader and text in ways that are fundamentally new and generative.

TEXTUAL CURATION

The earlier invocation of Netflix and Spotify suggested that their data trails had implications for the situation of texts. In these cases, algorithms paired with large data sets combine to select and push the texts to which we have access, serving as recommendation systems. In this context, 'recommendation' has implications for situation in the double sense of making available (or occluding) texts as well as ordering textual sequence. This new situation curates the textual world to which we have access on the basis of an extrapolated sense of who we are and what we desire.

Consider EchoNest's prediction algorithms that comb through data derived from millions of users' behaviors as well as data drawn from musical texts, seeking correlations by extrapolating past behaviors into future desires or by searching for other users' patterns that might offer a basis for suggestions. To the extent that users play along and offer consistent feedback, Spotify and other streaming music services that use EchoNest's algorithms demonstrate an uncanny ability to identify and provide access to the desired, the familiar, and the reassuring. As users of Amazon's book recommendation services or Netflix's film and video suggestions know, the same principles apply on these platforms as well. In these predictive systems, the past is prologue, as the data generated through our earlier interactions shape the textual world selected for us. No 'surprises' or 'unwanted' encounters, just uncannily familiar themes and variations emerge from this curatorial process.[1]

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1 | This logic extends into the informational domain as well, where it has been the subject of sharper critique, mostly focused on the argument that such predictive systems create an echo chamber in which our existing views of the world are reinforced but rarely challenged.

These behaviors take a slightly different form on Google and other search engines, where 'relevance' includes choices made on the basis of server location (language settings) and presumed relevance of search terms based on prior usage. Those whose settings allow will experience prompts derived from Google's many services including Gmail, Google Maps, and one's history of past purchases. This recursive loop has its conveniences, but the new situation both promotes certain texts and occludes others, invisibly shaping a unique world of possibilities. And it does this not arbitrarily, but based upon a reading of us, neither in consultation with us nor transparent in its operations. Moreover, 'we'—our data assemblages—are the real products that drive Google's profits. Situation is both recursive, in the sense of factoring 'us' (or some data semblance thereof) into the mix that determines what we see, and extractive, in the sense of profiting from both sides of the data equation, 'us' and the texts we see.

TEXTUAL CONFIGURATION

Algorithms have been used as tools for textual production at least since as far back as the Middle Ages, for example, with the canon form in music. And they have continued to appear throughout the ages, whether in the *Musikalisches Würfelspiel* attributed to Mozart, Lejaren Hiller's compositions using the ILLIAC computer in the 1950s, or as pervasive elements in the most quotidian of contemporary digital music. But in the era of big data, they have recently demonstrated a new dynamic in their role as creative tools. In some settings, the combination of user data and algorithms serves as a gatekeeper for cultural production, in the process, displacing the embodied knowledge of established tastemakers and short-circuiting the activities described by Howard Becker in *Art Worlds*. For example, Epagogix, a company that specializes in risk mitigation, has found a niche in advising film and television investors about the likely success of a given project. Data from audiences, box office history, the script, as well as various casting configurations are analyzed by Epagogix's proprietary algorithms, generating a financial assessment that may (or may not) serve as an incentive for investment. All this is to say that algorithms are increasingly playing roles in cultural production as gateways, permitting creativity, and as tools, serving *grosso modo* as creative implements. While essential elements in the cultural pipeline, neither of these applications speaks directly to the situation of readers and texts, a related but different activity that requires disambiguation.

Algorithmic activity moves into situation when it generates texts on demand for the individual user. This process is a bit like curation, just described, but instead of selecting and assembling existing texts based on a reading of the user, it draws on user data to actually construct and configure the text itself. That is, rather than shaping the user's textual access and environment, the algorithm, again, using

user data, anticipates user interests and preemptively makes decisions regarding the textual structure. It acts as a third party, standing between the audience and the text, and brokering the two by extrapolating insights from user data and a pre-existing textual environment, which in turn is selectively called upon to construct a text. From a world of textual possibility, the user simply experiences a made-to-measure linear text, a text that generally masks the fact that it has been compiled on the fly algorithmically.

The algorithmic creation of texts on demand for individual users has a robust presence in the realm of print. Companies such as Narrative Science, Yseop, and Automated Insights mine and analyze data, using natural language processing to deliver it to the user as a story. Millions of these stories were produced and sold in 2017. Although still primarily deployed in business settings, by the press for structured data sets (sports and finance), and on sites such as BuzzFeed as narrative reductions, they are perfectly capable of targeting uniquely configured stories to individual participants. Video production, while far behind, is fast taking advantage of advances in image recognition software to analyze shots for content and emotional register, and to suggest edited sequences, as evidenced by recent work emerging from a Stanford-Adobe partnership (Leake 2017).

Still nascent in time-based visual culture, these responsive textual systems with their algorithmic mediation of the user pose a new order of questions. Even if—to the algorithm—the user appears as both a highly individuated data set and a responsive rule set for textual construction, the algorithm nevertheless recursively produces real-world texts. It breaks the reader-text binary by introducing an intermediary element that determines both and, in so doing, marks out a new dynamic that we will have to grapple with. Whereas with traditional texts like the initial *Rambo 2* example, the situation of film emerges from cultural context, marketing endeavors, translation conventions, and the rest, all targeted at a broad audience, here, the scale of the transaction is reduced in granularity to the individual, and framing is literally embedded in algorithmic decisions regarding textual construction. The made-to-measure text, in these cases, is always already situated.

Lab experiments have recently focused on what might best be described as 'physiologically enabled texts.' Virtual Reality goggles equipped with pupil-trackers calculate what the user is viewing and even extrapolate an assumed level of user interest by observing pupillary dilation, heartrate, and, in some use cases, even temperature, brain activity, and galvanic skin response. These data points add a responsive layer to the more predictive data set acquired from past behaviors, combining to construct an 'appropriate' experience for the algorithmically extrapolated user. Obviously, this scenario is riddled with significant ethical challenges regarding agency and privacy. The agency issues are currently being played out in the domain of self-driving cars, but the privacy issues, in which our gaze and biomarkers are datafied, interpreted, and presumably monetized as signs of interest, go far beyond the familiar data trails that we are still struggling to contain in

policy terms. Nevertheless, they point to an extreme example of algorithmically situated texts and a sector that is quickly growing.

FINAL COMMENTS

RealEyes, a company that among other things designs technologies that 'read' facial micro-gestures and translates them into six categories of quantified emotional units ('happiness,' 'disgust,' etc.), represents a 'next step' in facial recognition. And although primarily directed toward gauging responses to online advertising, its implications for responsive text generation of the sort just described seem obvious (as do its more sinister implications for surveillance and predictive policing). This is all to say that the changing operations of situation, particularly as described above with textual curation and configuration, offer particularly relevant sites to rethink the contextual and material conditions and practices that position and frame the text. Of course, these conditions and practices are in flux and are caught in some challenging dilemmas, as the first half of this essay argued. But they are also moving in a particular direction.

Rambo 2's success in the Asian market hews to the well-established logics of cultural translation. I have taken the term translation to mean 'transference, removal, or conveyance from one person, place, or condition to another,' and John Rambo, like countless narrative figures before him, has played along with these shifting conditions, meaning very different things in different situations. But the nature of cultural situation is changing—and changing quickly. We inhabit a space where the old logics of translation exist alongside the new, and the very condition of coexistence itself is quickly challenging the clarity and efficacy of once well-understood cultural operations.

One could, of course, take up other lines of inquiry, looking at cultural conveyance through the shifting of texts across media platforms; or at the role played by code in operating and translating cultural systems, a task taken up by Lawrence Lessig, among others; or even at the determining role of apparatus and the translation of race in color film stock, Instagram filters, and facial recognition algorithms—worthy approaches, all. But this essay has limited itself to two emerging directions in the situation of cultural texts and their readers, one concerned with framing conditions and the other with the changing operations of the frame, particularly as evident in algorithmic curation and configuration. And it has tried to show that the cultural space we are entering is not simply changing the situation, as we have seen happen countless times before, but rather, that the very operations of situation are themselves changing, and in a recursive, generative, and individuated manner. This is all to say that this is a start, not a conclusion, and that the hard work of stepping outside of inherited boundaries and categories is more pressing than ever.

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Fragile Translations
Languages of/in Media Art

Claudia Benthien

INTRODUCTION

At galleries of contemporary art, visitors frequently encounter media artworks that employ and play with language. Some of the artworks both present and transform acts of translation—as shifts and volatile movements between different languages and linguistic modalities, and between different media and cultures. Such works may also be found online, in what is referred to as 'net art.' Through a simultaneity of languages as well as linguistic modes, media artworks strategically create an 'aesthetic excess' that challenges the recipient's reading, listening, and comprehension abilities. The process of translation, which is commonly intended to overcome strangeness and to make the unfamiliar familiar, is itself 'translated' into a challenging estranging aesthetic that lays bare the inherent fragility of translation and renders it perceptible.

This article approaches three media artworks: a single-channel video by the Palestinian-British artist Mona Hatoum, a net art piece by the Korean-American artist collective Young-Hae Chang Heavy Industries, and a video installation by the Bosnian-German artist Danica Dakić. Each of them combines different languages with the different visual and acoustic layers of language, i.e., their modalities: as oral (acoustically audible) language or as written (visible and legible) language. In general, language both transmits communicative meaning and functions as an aesthetic tool independent of its phonetic dimension. For instance, in media art, written language may continuously shift between 'legibility' and 'visibility,' and it is often presented in motion, as kinetic script (cf. Schneider 1998, 223–243; Benthien/Lau/Marxsen 2019: 80–110). Media linguistics has conceptualized language as an 'intermedium' (Jäger 2010b: 302): firstly, it is in itself multimodal (cf. Androutsopoulos 2007: 73)—it can appear in oral, scriptural, or gestural