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The Political Power of the Algorithm

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Abstract
This essay for the inaugural issue of *Technology and Language* highlights that digital technology is transforming not only the way we communicate through language, but the very nature of language, thought and action. Algorithms are deployed to make decisions, to sort and make meaningfully visible the vast amount of data produced and available on the Web. In ranking, classifying, sorting, predicting, and processing data, algorithms are political in the sense that they help to make the world appear in certain ways rather than others.

Keywords: Algorithm; Digital; Communication

Аннотация
В этом эссе для первого выпуска журнала *“Технологии в инфосфере” (“Technology and Language”)* подчеркивается, что цифровые технологии меняют не только способ общения с помощью языка, но и саму природу языка, мышления и действия. Алгоритмы используются для принятия решений, сортировки и значимого отображения огромного количества данных, производимых и доступных в сети. При ранжировании, классификации, сортировке, прогнозировании и обработке данных алгоритмы обретают политическую силу в том смысле, что они способствуют созданию одного образа мира, скорее чем другого.

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Digital technology is transforming not only the way we communicate through language, but the very nature of language, thought and action. The call by scholars in cultural and intercultural studies to "epistemically decenter" and "decolonize" language in language education (Bojsen et al. in press; Macedo, 2019) clashes head-on with the power of digital algorithms to select, organize and classify knowledge, predict user behavior and influence people's beliefs and actions (Bucher 2018, Jones 2019, Amoore 2020). Digital communication enhances the visibility of addressers, multiplies the number of their addressees, amplifies the content of their message, strengthens its phatic impact, and democratizes their modes of information. But beyond this structuralist Jakobsonian view of communication, there is a more insidious way in which digital technology itself is re-centering our lives and re-colonizing our thoughts. Post structuralist scholars of technology, e.g, Poster (1990), Latour (1999), van Dijck (2013), Pennycook (2018), have focused on the alliance between data processing and the technological construction of social reality.

The algorithms of social media platforms are not just technological devices, "coded instructions that a computer needs to follow to perform a given task" (Bucher 2018, p. 2). They are ways of thinking that blend with human minds and purposes.

> Algorithms are deployed to make decisions, to sort and make meaningfully visible the vast amount of data produced and available on the Web . . . In ranking, classifying, sorting, predicting, and processing data, algorithms are political in the sense that they help to make the world appear in certain ways rather than others. Speaking of algorithmic politics in this sense, then, refers to the idea that realities are never given but brought into being and actualized in and through algorithmic systems. (Bucher 2018, p. 2)

Twitter and Facebook in particular have become political tools for populist presidents, but also for Black Lives Matter and other movements for social justice.

Critics have focused on the (unholy) alliance between business models of technology (to make a profit) and their avowed social and epistemological mandate (to connect and inform). Such is the case of Google and Facebook that despite their mission statement have allowed questionable language practices on their platforms in the name of freedom of speech and freedom of commerce (Vaidhyanathan 2011). Facebook in particular has been accused of programming its algorithms for maximum user participation by encouraging sensationalism and fostering outrage.

Algorithms don't only enable people to make decisions, they are themselves algorithmic decision-making devices. What an algorithm enables the computer to do is give its users "actionable output" (Amoore 2020, p. 12). For example, it can make it distinguish, say, a protest from a demonstration or a riot. But, by assembling verbal propositions that express its reasoning and reducing the multiplicity of phenomena to a single actionable meaning, it enables the computer to decide what is worthy of attention, i.e. what is "interesting", and to act upon that decision.

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Algorithms are "predictions based not on linear sequences of causes and effects, but on non-linear recursive functions of big data that supply the contingent probability to all the layers within the algorithm . . . Algorithms learn by inductively generating outputs that are *contingent on their input data, using statistical notions of what is interesting*" (Amoore, 2020, p. 12, my emphasis).

Such decisions can have disastrous consequences, such as when a U.S drone mistakes a wedding party for a terrorist grouping. But it can also bias the results of exams as was the case when the grading of candidates at the International Baccalaureate was left to algorithms (Broussard, 2020). Because the input data included not only the previous excellent grades of a given student, but the historical performance data for her school and the teacher prediction of her grades, one Latina student got rejected because of the algorithm's assumption that students from that school, who were mostly low-income students of color, would continue to do poorly, and because teachers tended to have lower expectations for Black and brown students compared with white students.

Some critics have focused on the ethical aspect of algorithmic systems from a poststructuralist perspective. Louise Amoore rejects current definitions of algorithms as unitary, sequential lines of code, and she questions approaches that wish to increase the transparency of algorithms to address ethical issues. She offers instead a paradigm that envisions algorithms in terms of partiality, indeterminacy, and contingency, and that counters their nefarious effects by "reopening the multiplicity of the algorithm, digging under the stories, and attending to the branching pathways that continue to run beneath the surface" (Amoore, 2020, p. 162). Such a line of thinking speaks for reinstating the teaching of literature in language education, not to have students dissect its structures but to illuminate the ethical dilemmas and contingent truths that literature reveals. It is an urgent reminder for language teachers, eager to use the communicative facilities offered by social media and Google Translate, that language use is not just the ability to hear and be heard, but the obligation to listen and be listened to and respected in the concrete particularity of each person involved.

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