

Technologies of Reading and Writing: Transformation and Subjectivation in Digital Times

Introduction

Amanda Fulford, Naomi Hodgson, Anna Kouppanou, and Joris Vlieghe

Technologies of reading and writing as an educational issue

Practices of reading and writing are a timeless and yet most timely educational concern. Acquiring basic literacy skills is held to be vital to individual self-actualisation and to our collective economic and social wellbeing. At the same time, reading and writing are much more than instruments of teaching and learning. They do not merely convey knowledge, but play a formative role in what is learned and what kind of learning and thinking takes place. In this way, reading and writing give shape to individual users but they also bring about the social space in which children and young people learn and become citizens. This makes reading and writing not only an educational matter but also a political one.

A Symposium that focuses on technologies of reading and writing might set the expectation that the articles collected in this issue all deal with the impact of new technologies, and especially digital ones. This is partly correct and partly not. On the one hand, the scope of this Symposium is much broader than merely addressing the present situation in which digital media have an ever growing influence on everything we do, and therefore also on practices of reading and writing. We also address reading and writing as practices that are in and of themselves technological: writing with pen and paper is as much a matter of technology as is typing on a keyboard and screen; writing a letter is as much supported by technology as sending an email is. As such, literacy practices always have had, and always will have, a technological dimension; reading and writing are dependent upon material and technological supports, which constitute and give shape to what it means to read and write.

On the other hand, we do acknowledge that with the advent and proliferation of digital media, a fundamental shift in technological conditions has taken place. Digital technologies are markedly different from pre-digital ones, and therefore all the contributions to this Symposium deal explicitly with how practices of reading and writing transmogrify as a result of the digitization of the contemporary world. Issues stemming from this are high on the agenda of educationalists and policy makers today: for example, the concern that schools will disappear in favour of online learning environments, that we are faced with an irreversible decline in proper writing abilities, and that there is a lamentable increase in cases of plagiarism, among others. Opposed to this, there are many

who praise the new forms of collaboration and creativity made possible by the use of digital media, and who attribute to these technologies the promise of genuine democratic renewal.

The debate typically addresses these issues in these polarised terms: new technologies are either execrated as destroying the realm of education altogether, or they are regarded as the solution to all the problems we face. However, the articles in this Symposium tend to start from a different, less normative position on these matters, which avoids defending a clear and outspoken position for or against digitization. We hold that new technologies of reading and writing introduce new practices, whose educational and political significance lies in new spaces, new modes of thought, and also new articulations of being human, that are still in the making. Furthermore, we believe that we lack an appropriate language to articulate what is happening today. These articles should be regarded as an attempt to come up with the right words and with the theoretical frameworks that are required to address this most important educational, and political, issue.

We make this attempt from a variety of educational-philosophical and trans-disciplinary perspectives, which deal with literacy practices in a broad sense. Our articles cover the range from the earliest stages of literacy initiation in the family and at primary school, to forms of reading and writing in academia, by students and researchers alike. They also address reading and writing as they take place in formal contexts (school and university) and in informal spheres of life (literature, social media). Nonetheless, all articles, regardless of their particular focus, share the common concern that the use of old and new technologies of reading and writing have important bearings on the formation of individual human beings, as well as on the quality of our social and political lives. Therefore, technologies of reading and writing give shape to education in fundamental ways, and so are of serious and unavoidable concern for educationalists.

Overview of the contributions

The first two articles, by Joris Vlieghe and Anne Mangen, focus on the practice of learning how to read and write. Both authors address this issue by advocating the need for a theoretical framework that takes the often forgotten *bodily* side of educational practices seriously. In his contribution, Vlieghe defends what he calls a technosomatic perspective: by drawing attention to shortcomings in contemporary approaches such as new literacy studies and media theoretical approaches, he argues that we need to take into account the physical gestures and the embodied disciplines that constitute learning how to read and write. These should be addressed not in general terms, but rather analyzed at the level of our concrete, bodily interactions with technology. More precisely, Vlieghe claims that the ways in which we are trained to become proficient readers and writers, scribes and typists, have an enormous influence on how our subjectivities are shaped. By

investigating differences in learning how to physically master pre-digital and digital technologies of reading and writing, Vlieghe maps different spaces of experience, related to markedly different conceptions of what it means to be an educated person.

In her article, Mangen then focuses on the role of haptics and tactility, i.e. on the sensory modalities of learning how to read and write. This dimension is, for the most part, disregarded by educationalists, because reading and writing are generally considered to be merely cognitive activities. If we focus on the body, our hands can be said to be of greater importance than our eyes. In order to draw out the vital role that hands play in gaining literacy abilities, Mangen draws primarily from the paradigms of embodied cognition and Merleau-Pontian phenomenology. However, her contribution is also a plea for a radically interdisciplinary approach, which brings together philosophy, educational psychology, neurosciences, linguistics, semiotics, socio-cultural studies, and many more disciplines. From this combined perspective, Mangen analyzes the writing hand with pen and keyboard, the pointing hand in the shared reading practice of grown-ups and children, as well as the page-turning hand in high-level reading. Although these analyses pose serious questions to the uncritical implementation of keyboards and screens in school, she also shows how the issue of digitization and literacy opens an unprecedented possibility for an increased dialogue between, and even for an integration of, humanities and natural sciences.

The Symposium continues with two contributions that both take an interdisciplinary and phenomenological approach to inquire into the nature of reading and writing. Informed by the specific ways in which users interact with both old and new technologies, they pay heed to the complexity and particularity of human experience. Both draw heavily from the personal experiences of their respective authors, but also from different disciplines in order to account for what it is to read and write in print and digitally. Furthermore, they both rely on the field of literary studies in order to shed new light onto the practices of reading and writing. Literature emphasizes the emotional, embodied, and imaginative dimensions of these practices, and therefore its perspective tends to become marginalized in a culture that is overtly focused on the production and retrieval of information.

Cathy Adams' account relies on her own experience of a physical breakdown in her ability to write. For the phenomenologist, a breakdown is an opportunity for observation. According to Heidegger, things are ready-to-hand and we use them without really thinking about their mode of existence. When they break down or when we cannot use them for some reason, as in Adams' own experience of breaking her wrist, they enter our awareness in their unique way. The experience of a breakdown reveals to Adams the embodied nature of writing and the writing spaces created by the hands and reading and writing tools. She also pays heed to the materiality of writing spaces. Relying

on the important notion of *paratext*, drawn from literary studies, she turns to the particular features of writing spaces and shows how the supposedly 'blank slate' of writing is always already a conditioned space.

In the same vein, Anna Kouppanou draws on notions from cognitive sciences and literary studies in order to look at reading and writing technologies in an original way, in terms of metaphor. She expands the notion of metaphor to consider its embodied, material, and imaginative aspects, and uses instances of literary writing, both prose and poetry, in order to study metaphorical processes in their 'natural' environment. She shows how writing spaces are the result of time being metaphorically transcribed into space. These spatializations of time, she argues, are associative or schematic processes imbued with meaning and instantiated in print or digital media. Although these exteriorized metaphorical processes might not enter the conscience of the reader, they do condition both their reading and hermeneutic time, since the user needs to respond to these spaces by metaphorically transforming them into time. In this respect, texts, she asserts, are never neutral media but, rather, are *metaphoric machines* that condition the reader to enact associative processes and to conform to the text's symbolic and emotional meaning, its rhythms and spaces.

The next two articles by Naomi Hodgson and Amanda Fulford not only consider how technology gives shape to what it means to read and write, but also attend to how the notions of the 'reader' and 'writer' are constituted in particular ways today by such technology. As indicated earlier, the attention given here to technologies of reading and writing bear on the formation of ourselves, as human beings, and on what it means to be educated. These two articles are concerned with how we are addressed, and address each other, as learners, as citizens, and as researchers. Hodgson and Fulford both examine, in different ways, how certain technologies of reading and writing are, by how they position us as subjects, constitutive of a particular mode of governance. Focused on the context of higher education, these articles illustrate how particular technologies of reading and writing enter the researcher in to an economy of accountability, in which she is accountable not only through writing as output, but also for herself by making these outputs visible and accessible. To illustrate the increasing adoption of what she calls 'technologies of writing' in the university, Fulford's starting point is the market for providing prescriptive resources that purport to help students in the development of academic writing skills. She argues that these systematize and smooth the work of writing, such that they serve as technologies of risk management that promise a trouble-free path to writing success. Drawing on the etymology of 'writing' - as scratching out, or carving in - her article considers how thinking metaphorically of writing as physical labor offers a counter to the discourses of writing that seek to construct the writer, and writing itself, in ways that not only deny its inherent messiness, but also, therefore, the transformation of the self that comes

through the labor of learning to do it. In illustrating the notion of writing-as-labor, and what it means to be a writer in a richer sense, Fulford draws on *Walden*, by the 19th century American philosopher and essayist Henry David Thoreau, and on Stanley Cavell's work on this book, *Senses of Walden*. Her analysis emphasizes how an encounter with our words can itself be educative. She finds in Thoreau not an argument against the use of technology *per se*, but rather a case for being present in one's words that means being awake to their dividing possibilities. To encounter language in writing is to recognise the repetitiveness of the labor, to bear the responsibility that being a writer brings, and to acknowledge that being lost in one's work, and finding your way out, is also a finding of oneself.

The standardization and risk management that exists in current educational policy and practice also informs Hodgson's account of the relationship between new technologies of reading and writing and the governance and self-governance of the researcher. Again, the concern in Hodgson's account is not to offer a negative account of technology in view of what it ought or ought not to do, but rather considers two particular devices in terms of how they are constitutive of a particular mode of subjectivation today. The descriptive account of how this is produced looks in particular at open access policy and the ways in which traditional publishers are responding to the challenge this presents and to the needs of researchers who understand their value and success in terms of metrics and particular forms of accountability. Open access is often theorised in terms of the challenge it presents to the current, and long-standing, model of scholarly publishing, dominated by a small number of international publishers. In the context of a knowledge economy in which the production and circulation of knowledge and data are key indicators of innovation and productivity, governments and public funding agencies now actively encourage and facilitate the availability of research outputs in open access. The notion of open access as a straightforward challenge to private, closed access models seems, then, too simplistic when open access publication and the visibility these afford are key measures of accountability for researchers and institutions. Hodgson's account, therefore, considers the relationship between the way in which the researcher is asked to understand herself and the technological devices that facilitate the benchmarking and monitoring of this, and the affordances of new technologies for reading and publishing journal articles that facilitate the required metrics of accountability such devices require.

Such demands for accountability and visibility render the affordances of social media attractive to academics as well as their students. The cautionary tone is strongest in the final contribution to the Symposium, by Nicholas Burbules. Drawing on activity theory, he surveys the different facets of the social media environment in which students and academics exist today. By considering the ways in which social media invite particular forms of argumentation and debate, and constitute a particular experience of space, time, and the social, he raises the questions of how and

to what extent the use of social media in our teaching and in our (self-) promotion is attuned to the aims of academia and to the university as an institution.

Conclusion: Collaboration and the process of writing

The process of producing this Symposium has been one of collaboration, and a true experiment in thinking and writing together. This project originated in a symposium called 'Technologies of Reading and Writing' at the 2014 INPE Conference in Cosenza, Italy. Here, the four editors of this Symposium first explored a shared concern with literacy technologies, each bringing in their own expertise, particular interest, and theoretical background. Because they felt there to be interesting commonalities between their work, they sought collaboration with other scholars, which resulted in an application, and subsequent invitation, to the Educational Theory Summer Institute at the University of Illinois at Urbana-Champaign in summer 2015. The very process of intense discussion and close reading of each of the draft articles in turn formed the basis of a highly collegial event. Before the event and since, the process of collaboration has been perhaps typical of academic research collaboration today: communication by email, coordinating time zones and connectivity to speak 'in person' via Skype. The Institute itself, however, was a 'real life' encounter. We would like to express our gratitude to the organisers of this event for making possible the space to think, read, and write together in this way. Particular thanks are due to Roman Friedman and to Chris Higgins, to the academic staff and graduate students of the College of Education at UIUC and invited colleagues who provided invaluable discussion and feedback, and to *Educational Theory* for supporting what is a vital - and yet increasingly hard to achieve - activity in academic life today.