

Literature and Analytics: Changing Aesthetics in the Age of Big Data

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Abstract – Language is a faculty that differentiates Homo sapiens from other animals on Earth. It is a gift that evolution brought to humans. All human societies have language that can communicate their experiences fully. The invention of printing resulted in the universalization of knowledge after the European Renaissance. The growth of science, especially after Darwin, has shattered traditional philosophical and religious ideologies. Science has come to the centre of everything and revolutionized human values and progress. The revolution in the field of communication technology assisted by the English language has changed the modes of communication and replaced traditional means. With the advent of information technology, every aspect of Homo sapiens' life has been converted to data. Technology has enabled us to measure an ever-increasing volume, variety, velocity and veracity of data in an age of 'big data'. The possibilities of billions of people connected by mobile devices, with unprecedented processing power, storage capacity and access to knowledge are unlimited. E-readers and tablet computers have changed not only the way of reading but also the way of composition. The communication revolution is going to transform the way language is used and literature is experienced. It is a monumental shift that is going to change the very definition of language and it is a progressive move in the creation and publication of literature.

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One of the most remarkable pictures that is celebrated and shared by the rationalists and followers of science is that of Clinton Richard Dawkins wearing a t-shirt with the expression "We Are All Africans" printed on the front. Investigation of the patterns of genetic variation in modern human populations supports the view that the origin of Homo sapiens is the result of a recent event that is consistent with the Out of Africa Model (Johanson). The recent African origin of modern humans or the "Out of Africa" theory (OOA) proposes a "single origin" of Homo sapiens saying anatomically modern humans began migrating out of Africa (geographically this includes the Middle East) during the Middle Stone Age/Middle Palaeolithic around 100,000 or 70,000 years ago and began to replace earlier pre-existent Homo species such as the Homo erectus and the Neanderthals.

The change from a species of hunters and gatherers to sedentary agriculturists on the banks of rivers and crop raisers was an evolutionary change in the behaviour of Homo sapiens. As the behaviour of a scavenger was replaced by the perseverance of a farmer – those who adapted to the change survived in the process of evolution – Homo sapiens started social and cultural life. The behaviour transferred to generations via genetic, epigenetic or subcultural influences. In this process, language was

a key factor to maintain social and cultural relationship. Language encodes a Homo sapiens' thought into puffs of air or dozens of drawn symbols and is decoded by another sapient receiver. Languages are maintained and culturally transmitted by acts of speaking and writing. Many modern languages have descended from some proto languages. Migration, seclusion and geographical distances resulted in the evolution of distinct cultures and languages.

The first cave paintings and carvings are the first irrefutable expressions of a symbolic process that is capable of conveying a rich cultural heritage of images and probably stories from generation to generation (Deacon 374). Switching from the initial gesture language to vocal mode forms the distinctive grammatical properties, that allow humans to create unlimited expressions. The mental time travels are elaborated into narratives and children are told these stories. Stories continue to dominate our lives, whether in the form of plays, novels, operas, television soaps, or bedtime tales told to children (Corballis, 51).

In the Biblical account of the Tower of Babel, in Genesis 11:1, it is said that everyone on Earth spoke the same language, and God divided them by making them speak different languages.

Different religions and cults have their own account of the creation of man and the origin of language. Miscommunication may have awful consequences. It has led to personal conflicts and disasters and even resulted in war between nations. One of the most remarkable features of this century is that the Homo sapiens now has a global language called English, a lingua franca, supporting the scientific and technological growth of the species.

European Renaissance marked a new enthusiasm for classical literature, art and learning. Humanism placed man in a high pedestal and a spirit for voyage, exploration and seeking knowledge dominated during these centuries. A series of events followed – growth of science and rational thinking, colonialism, dominance of the British, the Enlightenment, acceptance of democratic values, industrial revolution and finally the two world wars. The invention of printing increased the use of written vernaculars enormously during and after the Renaissance. As Britain became the dominant colonial country, its language too attained importance; and the learning of this language has opened the window of scientific and rational thought to the rest of the world.

Even though colonialism is a contemptuous ideology, it has positively contributed to the unification of the Homo sapiens based on enlightenment values, science and technology. The growth of science, especially after Darwin, has shattered traditional philosophical and religious ideologies. Science has come to the centre of everything and revolutionized human values and progress. There has occurred a globalisation of rationalism and scientific temper. The popularity of English has indirectly contributed to it, raised it to the position of a global language. The progress of technology has placed it firmly and it has become the language for computing. In the last decades of the 20th century, revolutionary inventions have occurred in the field of media and communication. The device called computer has become an essential tool for each and every field, assisting storage of information. Language discourses too have been affected since listening, speaking, reading and writing is done with the help of the computer.

The revolution in the field of communication technology, assisted by the English language, has changed the modes of communication and replaced traditional means. When face to face communication was the only way to transfer audio messages, radio communication replaced it with wireless technology. Books are replaced by e-books and reading is done with e-book readers. Writing with pen and paper is obsolete today and the computer keyboard has taken its place. How does this shift affect the usage of language by Homo sapiens? Does it affect language and literature positively or negatively?

With the advent of information technology, every aspect of Homo sapiens' life has been converted to data. Technology has enabled us to measure an ever-increasing volume, variety, velocity and veracity of data in an age of 'big data'. The term "big data" tends to refer to the use of predictive analytics, user behaviour analytics, or certain other advanced data analytics methods that extract value from data, and seldom to a particular size of data set. David Brooks use the term Dataism to describe the mind set or philosophy created by the emerging significance of Big Data (Brooks). Harari in his *Homo Deus* has taken things further saying that human life is a flow of data and the value of an entity is determined by its contribution to data processing (Harari 2016). "...humanism is now facing an existential challenge and the idea of "free will" is under threat... Once Big Data systems know me better than I know myself, authority will shift from humans to algorithms" (Harari 2016).

The future of Homo sapiens, regulated by communication technology, will see a conflict between organisms and algorithms. The studies of digital media have given a new direction to gain knowledge about society. Though interpersonal communication cannot be accurately traced through social media usage, it plays a vital role in analysing mass behaviour. Algorithms can manipulate opinions and condition human behaviour so that a collective pattern can be structured either as favourable or unfavourable to a subject. Klaus Schwab, Founder and Executive Chairman of World Economic Forum Geneva, has the following opinion on this evolving phase of industrial revolution:

The First Industrial Revolution used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and information technology to automate production. Now a Fourth Industrial Revolution is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres.... When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace.... The possibilities of billions of people connected by mobile devices, with unprecedented processing power, storage capacity and access to knowledge are unlimited. And these possibilities will be multiplied by emerging technology breakthroughs in fields such as artificial intelligence, robotics, the Internet of Things, autonomous vehicles, 3-D printing, nanotechnology, biotechnology, materials science, energy storage, and quantum computing. (Schwab)

Information technology turns our ways of communication, including the magnificent one, i.e.

literature, either redeployed or obsolete. When modernity rearranged modes of representation, literary language has been stripped off its grandeur. HomoSapiens is presently witnessing the most profound transformation of their communication in history. The present century game changers are the internet, smart devices, satellites, algorithmic marketing and social networking. A social transformation is taking place in the field of creative writing and appreciation of literature.

In the information age, the relation between the sender (the writer) and the receiver (the reader) has altered much; marketing algorithms have turned them to suppliers and buyers. The exercise of buying and reading of books has turned from libraries to online stores and the purchasing behaviour recorded by the marketing algorithms, such as those employed by online shopping websites like Amazon, display books that accord with the reader's attitudes and assumptions. The contemporary authors can understand and follow their readers' opinions and tastes better than any authors at any other time in history.

The internet allows writers to see the ramifications of their artistic decisions real-time. There is no more 'the reader' but folk of readers and to flourish in the whippy, multifaceted information habitat of today, the writer must become a chameleon. Authors who want to survive in the datafication era can no longer trust their creative potential. Either a writer adheres to literary similitude, enjoys a sense of superiority and becomes narcissistic, or possesses a profound understanding of the literary effects and begins creating the state of the art, multi-coloured literature of the datafication era.

Regarding the readership, the book culture is slowly disappearing, and the vacuum created is compensated by new media resources. Classics will remain relevant as monuments of the past, but new literature is multiplatform and will be distributed in infinite number and to all who come. The size of the books is not in folios or duodecimos but in terabytes of information that is compact, and even the world's longest novel can be carried and read on the world's smallest reading device. The writer or the researcher is not the store of information today; s/he is replaced by search engines and this is going to affect the way literature is written.

E-readers and tablet computers have changed not only the way of reading but also the way of composition. The current publication of poetry is done either exclusively online or by a fusion of online and offline publications. E-literature sets readers' gadgets with hypertext fiction, kinetic poetry, digital visual poetry, interactive poetry, code poetry, holographic poetry, experimental video poetry... or takes advantage of things like listservs, blogs, and other forms of network communication to create

communities of collaborative writing and publication as in poetical wikis (Sfetcu).

The most popular and widely used tool for foreign language comprehension is the translator services available in the internet. Technology giants like Google and Microsoft have their translator tool which helps an internet user to copy and paste a text and translate. Several social networking sites also offer translation tools to understand posts and statuses. If text translators take time and need to be connected to the internet, the new real-time translator gadgets provide offline and instant translation that is extremely helpful for travellers in foreign countries.

Language as a communication tool for the Homo sapiens is evolving at a fast pace with technology day by day and its most advanced and appealing form, i.e. literature, too adapts itself to this rapid change. Everywhere, the social identities and networks that languages reflect and construct are becoming dispersed and less geographically tied (Graddol). The standardised form of language is slowly fading away especially in the case of English. With new technology and new skills, the attitude of the public towards correctness has changed. The border between written and spoken forms of languages is withering away and each day new usages are entering into languages. The rules of grammar too have become flexible, adopting urban hybrids into standard language. The text has changed its form and become shorter, fragmentary and multimodal.

The datafication age has significantly changed the form and content of language and literature. The communication revolution is going to transform the way language is used and literature is experienced. Language is the unit upon which data is written and it is turning itself into a heap of data that manipulate the human behaviour. It is worthy to ask whether technology could turn literature more 'technical' both in its form and its aesthetic appeal. The linguistic gatekeepers express their anxiety over the future of language and literature. Dataism is certainly going to change the communication aspects and the way a text is composed and received. It is a monumental shift that is going to change the very definition of language and it is a progressive move in the creation and publication of literature.

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