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1 From Speech to Print

The beginning of the history of media may be placed at the invention of the alphabet around the year 2000 BCE, as early as the development of writing around 5,000 years ago, or the development of language before that. Media were already important in ancient cultures. Many materials were used in communication, such as parchment, clay and stone, and later papyrus and paper. In the later modern era, elements that similarly influenced communication included steam, electricity and plastic. As materials became lighter, communication grew more efficient. Often those who used ancient ‘media’ also had a monopoly on knowledge.

We must also not forget religious communication, which has played a crucial role as a visual medium for millennia. This mostly applies to Christianity, however, as the use of images in mosques and synagogues in Islam and Judaism has been scarce. Since the literacy of the so-called common folk is a relatively recent development in world history, for millennia the average person has formed his or her worldview through religious sculptures, mosaics and paintings. Also, before the Reformation, religious texts were often written in Latin. Medieval cathedrals in particular have functioned as a strong form of communication, and the events of the Bible have been narrated to the faithful in the form of images (icons) and sculptures. Up until medieval times, art was largely didactic, or educational. Pictures taught people everything that was important about the history of creation, religious dogmas, saints and virtues.

Churches, medieval cathedrals in particular, have also acted as media spectacles where pictures, words and music have formed a multimedia experience. The term ‘multimedia’ was established along with digital culture when people began combining text, sound, pictures, video and animation using computers. Before modern media, spectacles of course existed outside religious communication as well. One important form of communication in Europe has been various public rituals, such as parades, plays and coronations, royal weddings and funerals. Royal weddings and funerals in particular have been and still are important media spectacles, if we look at things like European royal weddings in the 2010s or the funeral of Princess Diana in 1997.

Communication has at times acted as a crucial factor in the development of humankind. Some media theorists have even looked at the entire history of civilization from the point of view of the history of media, such as Harold.
A. Innis in his influential works *Empire and Communications* and *The Bias of Communication*.¹ Media manifest ‘the extensions of man’, to quote Marshall McLuhan,² who continued Innis’s work.

**WORDS INTO TEXTS**

Ancient Greece has traditionally been considered the birthplace of Western civilization and Europeanness. Although writing had been invented about 2,500 years earlier, speech was the most important medium in the Hellenic culture. During its classical era (480–330 BCE), foundations were laid for things like Western philosophy, whose progenitor Socrates (circa 470–399 BCE) based his thoughts and actions on speech. However, the dialectical method of questions and teaching he used has been passed on to posterity through the writings of his students, such as the philosopher Plato. Although Plato was a skilled writer, he was opposed to writing. To Plato, like his master Socrates, dialectics was the basis of reason. Plato believed that writing destroyed memory. The same argument has been used with digital culture – how computers and mobile devices reduce the need to exercise memory when everything is always readily available somewhere. Plato also raised the issue of how writing, unlike speech, is unable to defend itself or correct misunderstandings. Socrates has been seen as the first media theorist and Plato as the first media critic.³ Although this was the era of the manuscript or *chirographic culture*, rhetoric was valued above all and speech still held a primary role in communication between people. By this point, a transformation had taken place in the history of information from *pictographic*, or writing the picture, through *ideographic*, or writing the idea, into *logographic*, or writing the word.⁴

Ever since modern man, *Homo sapiens*, began to form complex words and phrases using their developed vocal anatomy, the culture of speech or *oral culture* dominated communication between people. The development of language formed a basis for development: humanity became human. Speech was humanity’s only ‘media’ for over 150,000 years. It has been suggested that speech developed during human evolution primarily to facilitate collaboration. In the development of primitive humans, brain size correlated with group size, so that as the brain developed groups grew in size. There were also more males in these groups, because as communication developed females were able to trust males more. This facilitated the transfer of genes that were beneficial for evolution. Communication became valuable. Words could be used to instantly sway others, obtain status and also communicate unusual things, anomalies.
In the era of oral culture, people’s livelihoods were based on hunting and gathering. Speech allowed not only precise communication to others regarding things like obtaining food, but also the processing of things on an abstract level using symbols. Humans may indeed be called ‘the symbolic animal’, referring to the phrase by German philosopher Ernst Cassirer (1874–1945). As vocabulary developed, so too did conceptual thinking, our perception of the past, the future and the world outside our physical senses. Through language, man also became self-conscious. Many philosophers, such as Gottfried Leibniz (1646–1716) and Ludwig Wittgenstein (1889–1951), have emphasized the primacy of speech for thought, and that the barriers of language are equivalent to the barriers of the world. Language also provided an opportunity for sharing emotions and ideas, which allowed the development of various complex strategies and tactics. The development of speech may have played a key factor in Homo sapiens becoming the dominant and soon also the only species of human about 30,000 years ago. When the species began to spread from its ancestral home in Africa around the world, speech helped it survive changes in climate, terrain, fauna and flora that took place particularly during the last Ice Age (35,000–10,000 BCE).

In oral culture, things were preserved in memory and transmitted to new generations in repeatable rhythmical and metric stories and songs that included imagery and metaphors. This helped sustain culture through the ages. Myths have been preserved mainly because they have been passed down the generations as oral poems and songs. They would not have survived to this day on a large scale, however, had they not been written down once in the form of mythology. Such myths include Homer’s The Odyssey, the Icelandic sagas and the Kalevala, the Finnish national epic that was an influential book for J.R.R. Tolkien, the creator of The Lord of the Rings. Oral culture is indeed often traditional and conservative in its effort to preserve culture. This can also be seen in religious texts like the Bible or the Quran.

Stories vary according to their narrator, however, and speech about the past is tied to the present – the way in which the narrator formulates his or her speech. In addition, speech is bound to a place and a situation and changes, unlike writing. Writing began to develop after humans began to draw. The earliest surviving evidence, such as cave paintings, drawings and cliff carvings, are about 40,000–50,000 years old. Gradually, pictures began to develop into pictograms. As networking village communities began to replace hunter-gatherer communities, a need arose for more precise communication. Agriculture developed around 9000 BCE in the wet plains and hills of what is called the Fertile Crescent (present-day Iraq, Syria, Jordan, Lebanon and Israel/Palestine). Writing was developed first and foremost to
serve the needs of government: that is, for taxation and accounting. During its development, people did not think that writing would be used to transmit poems, letters and stories, or that literacy would become an aid for human thought. Writing also launched humans from the prehistorical era to the pages of history: history ‘begins’ with written history.

The relationship between speech and writing is interactive and multidimensional. According to the Canadian literary theorist and cognitive researcher David Olson, reading and writing have shaped the way we think about language, the mind and the world. In particular, Olson discusses the relationship between speech and writing: the way in which writing, after its invention, has created a model for speech. Harold A. Innis, also from Canada, has said that writing greatly expanded humanity’s capability for abstract thought. As written culture developed, human mentality also changed and new opportunities developed for intellectual thought.

Various writing methods, such as hieroglyphs and cuneiform, had been used by Sumerians and Egyptians as early as the early Bronze Age around 4000–3000 BCE. The invention of writing, or rather the reproduction and preservation of spoken language, was influenced not only by drawings and paintings, but also by tally stones, which served trade in ancient agricultural societies. There is evidence of the earliest tally stones dating back to around 8500 BCE. Tally stones were small triangular, round or conical objects of clay that represented an animal, a measure of grain, pots of oil or other trade goods. These marks or tokens carried meanings.

The next step, around 3700 BCE, was the replacement of these marks with hollow balls of clay that acted as envelopes of a kind. To identify the contents without having to break the ball, the Sumerians first depicted the contents of the ball on it as such, and later scrawled some kind of representation of the contents onto its surface. As representation became increasingly abstract, the objects no longer needed an actual content, and the ball could be transformed into a tablet. These objects also became status symbols, which is why they have been preserved in tombs. Around 3100 BCE, the Sumerians developed numbers to depict things like a quantity of sheep, and so writing and mathematics are considered to have developed at the same time, although mathematics only became possible after the invention of writing.

With the development of agriculture, village societies developed into cities and began to trade with one another, which required communication for things like measurement and calculating quantity. In addition, the clergy gained power and began to influence secular laws in addition to religious ones. The most famous of these laws is the Code of Hammurabi, whose nearly 300 laws were carved in stone at public places around 1700 BCE. The Babylonians
developed the phonetic script of their predecessors the Sumerians by turning it into a standard that could be used to rule an empire.

The method of writing developed by the Sumerians in Mesopotamia\(^{10}\) was also adopted in Egypt. It is not known for certain, however, how writing came to Egypt. The idea of mimicking is supported by the fact that the written Egyptian language appeared at once, as opposed to developing gradually like the Sumerian pictograms. Writing was also developed independently by the native peoples of Mexico around 600 BCE, and possibly also by the Chinese by around 1300 BCE.

The writing of the Egyptians is known through hieroglyphs discovered in tombs. It was developed by priests for religious purposes, but there was also a secular, everyday version of the script for accounting and correspondence. Although the Egyptians slightly expanded the use of writing as a form of communication between communities, it remained a rather complex skill mastered by the few. Hieroglyphic script has been deciphered largely with the aid of the Rosetta Stone\(^{11}\) that had the same text written in three languages: ancient Greek, ancient Egyptian and hieroglyphs. The Rosetta Stone has become a metaphor for solving a difficult problem. Writing is, in a sense, a cipher if it cannot be read. Writing is in fact technology,\(^{12}\) even though it may not feel that way to those of us who have internalized it. Yet writing technology utilizes tools and equipment including paper, pens, brushes and ink or a word processor, mouse, keyboard and printer. Writing enables the preservation of things in an external memory and the transmission of a message across time and distance. Writing allows a message to be delivered to its destination secretly and in authentic form. In a sense, the information is removed from the speaker, which changes the concept of information. Writing has also enabled discourse about discourse, where written language itself is an object of interest.\(^{13}\)

In historical research, however, writing has not been seen merely as a ‘technologizer of the word’ that has enabled the change and development of societies. Instead of deterministic generalizations, efforts have been made to study writing as part of complex societal, social and cultural contexts, where development has not necessarily been that straightforward. The linguistic turn\(^{14}\) starting in the 1970s has also influenced views in historical research on how linguistic communication affects the mentality of human communities. According to this view, language plays a crucial part in how societies have formed. This view posits that societal processes have not been deterministic, but are the results of cultural communication. For example, the American Jesuit priest and literary scholar Walter J. Ong\(^{15}\) has said that besides its role in the development of abstract thinking, writing strengthened the position of the Church in people’s lives.
Writing is a power technology. It ‘enables remote control over people and property but also time and place’, as media philosopher John Durham Peters puts it.\textsuperscript{16} The American evolutionary biologist Jared Diamond\textsuperscript{17} considers writing to be a key tool of modern society together with arms, microbes and a centralized political system. He emphasizes the way in which writing has spread either through a blueprint – by copying or conversion into another form of writing – or by adopting writing in the form of the spreading of ideas or internalization of an idea, where the details have been developed independently. The Romans are an example of the former type of culture and the Egyptians (probably) of the latter. Moreover, the development of food production was a precondition for the development of writing. Yet not all food-producing societies that have also had complex political systems developed writing. For example, in the empire of the South American Incas, one of the largest empires in the world in the sixteenth century, writing was unknown.

**THE MANUSCRIPT CULTURE**

Hieroglyphic writing was a mixture of picture (pictograms) and phonetic signs (phonograms). The actual phonetic alphabet was developed around 1500–2000 BCE among the Semitic peoples in the Middle East, and the alphabet has probably been invented only once during the history of mankind. The Greeks adopted the alphabetic script from the Phoenicians, a Mediterranean people of traders, which is the origin of the word *phonetic*. Even the Phoenicians did not have vowels in their writing, only consonants – probably because vowels were not important in Semitic languages. The Greeks introduced the vowels, and based on the Phoenician system created a 23-character system of letters around 800 BCE. The Greeks called text written on papyrus *biblos*, which is the origin of the word ‘Bible’. The Romans, on the other hand, called a roll of papyrus *volumen*, which has become the English term ‘volume’, referring to a book.

From Greece, the alphabetic script was passed on through the Etruscans and the Romans to European cultures. The Greeks began to use writing for other things than just the exclusive administrative tasks of scribes, and it spread to private homes as a tool for poetry as well as humour. This gave birth to literature, and thinking began to be further supported by writing. It should nevertheless be noted that the Greeks did not need the alphabet for creating literature, because epics like *The Iliad* and *The Odyssey* were born in the absence of writing, in metric form and based on memory. A method of writing based on sounds was also more democratic in the sense that learning to read
became possible for broader layers of society, as 20–30 letters were relatively easy to learn – unlike early conceptual script, pictogram script (thousands of ideograms, for example in Mandarin Chinese) and syllabic script (for example Japanese).

It has also been asserted that with the arrival of literacy in Greece there was a leap from that which was heard to that which was seen, which enabled a ‘revolution’ in Greek thinking as the Greek civilization rose above others.\textsuperscript{18} This view has been criticized for being too radical, even though writing has without doubt facilitated argumentation by recording information for reuse. The questioning that remains an essential component of science, especially philosophy, is seen to have taken place in Greece primarily in the culture of speech. But as Olson says, writing has nonetheless facilitated the development of scientific thought, which includes scepticism: questioning things.\textsuperscript{19}

Greece and especially the Romans gave birth to a chirographic culture, or the culture of writing, that lasted from antiquity to the end of the Middle Ages. However, the distribution of written materials decreased significantly in Western Europe after the fall of the Roman Empire. An important part of the development was the shift from rolls to the codex or book format, which was adopted by Christianity. In the world of the manuscript, writing was still subordinate to speech: its task was to recycle text back into the world of speech. There was no such thing as reading quietly to oneself; even account books were read out loud. Up to the Middle Ages the majority of texts were intended to be read out loud, and the use of readers was commonplace.

Texts were copied manually by writing, and because copies were unique they were also valuable. The price was augmented by the increasingly common parchment, which was a valuable material. Books and literacy were still the monopoly of ‘princes and priests’: God spoke through them, so communication often consisted of one-sided monologues. Writing was also a tool of power, because it allowed information to be monopolized. Monasteries became copying factories of sorts, but also libraries as well. Hardly anybody read ‘for pleasure’. Writing had been invented as a tool, and it remained that way for a long time. Still, people also trusted in memory, at least to a couple of generations back. In any case, the preservation and centralization of information, which is an elementary part of the internet, for example, has been a component part of the daily life of civilizations at least since the days of the Great Library of Alexandria (around 300 BCE).

How democratic literacy really played out as a phenomenon before modern times is a rather relative question. In the Middle Ages and for a long time thereafter, writing was a skill mastered by the few, especially the clergy. However, writing also began to spread to other layers of society. An important
part of this development was the birth of the European university system in
the twentieth century. Writing became more ordinary in the late Middle Ages,
which had significant consequences. Traditional customs were replaced by
written laws, and documents were forged. Scribes got so much power that, in
the Middle Ages, we can talk about them having a monopoly on information.
Manuscripts, handwritten documents, were already produced rather copi-
ously two centuries before the invention of printing. The spread of writing
gave birth to new professions, as along with scribes emerged the accountants,
secretaries, notaries and postmen who all held a high professional status. This
also increased the amount of paperwork and bureaucracy.

Writing also had indirect effects. It improved social control when laws as
well as other norms and rules could be written down, making them more accu-
rate and less ambiguous than memorized ones. This helped societies become
more stable and peaceful, as legal punishment and culture supported each
other with increasing control. The world also became more predictable.

Writing did not replace speech, however, just like the new rarely replaces
the old in media history. Preaching has been important as part of the
‘multimedial mass media’ created by the Church all the way into the era
of modern media, and not only as a communicator of religious messages.
From the very early days, governments have been aware of the importance
of the pulpit especially in the countryside: in Finland, for example, secular
announcements were made in churches as late as the 1920s. Government
administration and universities have also communicated through speech for
centuries. In addition to myths, various songs, ballads and rumours have
spread topical information, and rumours have been called ‘the oral postal
system’. Other places of oral communication have included gentlemen’s clubs,
scientific associations, public bathhouses and inns. Increasing trade has
increased oral communication.

GUTENBERG’S ‘INVENTION’

A large-scale written culture that permeated society only began to gain ground
in the 1450s with the invention of printing, which played an important role
in modernization. However, printing did not actually trigger moderniza-
tion. These roots, rather, go back to the birth of early-modern Europe in the
twelfth and thirteenth centuries. At this time, the basis for the development
of modernization was laid in the form of the founding of the universities, the
synthesizing of the philosophy of antiquity with Christianity, the crusades
and the voyages of discovery, and an increasingly busy capitalist trade (for
more on media and modernization, see Chapter 6). When looking at inventions that have influenced ‘the speeding up of history’, printing is mentioned alongside gunpowder and the compass. These developments led to a faith in progress, a linear conception of time, scientific technology, control over nature, individualization, and secular enlightenment as well as disciplined work and an entrepreneurial spirit, which are considered to be modern features of society and culture. The effects of the development of printing in this process were crucial. Although printing as such did not trigger the ‘scientific revolution’, the Reformation, the voyages of discovery, the rise of capitalism or the revolutions in America or France, it is hard to see how they could have been accomplished without it. Most importantly, printing enabled a huge reproduction of culture that was no longer in the hands of the chosen few. It gave birth to a typographic culture.

In the early-modern era, increasing trade and the urbanization of society led to busier communication. The voyages of discovery, the appreciation of national cultures and languages and the rebellions of peasants and craftspeople against the dominant nobility and bourgeoisie, which began around the same time, further increased communication. Another important factor was the decline of the power of the Catholic Church due to the Reformation, along with the emphasis on the importance of equality and the individual. Religion also played a significant role in spreading literacy, as Martin Luther emphasized the importance of spreading the Christian Scriptures in the divergent vernaculars of the people. Literacy was a precondition for information spreading to become the property of all people, and printing came to satisfy the needs of the growing number of readers. The printed word was also more democratic. When monks copied manuscripts, they were expensive – status products equivalent in value to that of a cow or even a house. Printing caused these prices to crash, so that even poorer people could afford books, though it would take a long time before the hardest-suffering had access to them.

In the early sixteenth century, printing was not a new invention, however. Printing had been practised in both China and Japan as early as the eighth century – in China, the practices for stamping and copying texts carved in stone date back to before the beginning of the Common Era. Printing is considered one of the four great inventions of ancient China along with the compass, gunpowder and paper-making. The actual printing technology was developed in China during the Tang dynasty (618–907 CE). In it, a piece of wood was used for printing one page at a time. This was suitable for an ideogram system, but not for the alphabet, which included 20–30 characters. Probably because of their strong connection to ideograms, Chinese printing methods did not spread more widely.
In Europe, too, plate printing presses had existed since the end of the thirteenth century. The plates were made of wood, and one page of text was carved onto one plate. The method was slow, and the wooden plates wore down quickly. Printing also spread to Japan and the Korean peninsula. Metal plates had been experimented with in Korea in the late fourteenth century, but working them had proven difficult. As would later happen in Europe, initially religious texts (the teachings of the Buddha, or the sutras) dominated content.

The first European printing method was developed in 1447 in Mainz, in the Rhineland by a goldsmith, Johannes Gensfleisch zur Laden zum Gutenberg. He is better known by the name Gutenberg. He discovered that there was no need to work an entire plate out of metal, but cast individual letters that could be easily placed in a different order according to need. Gutenberg did not invent movable types as such, as they had been used in Asia and even Crete (the Phaistos Disc) almost 2,000 years before the beginning of the Common Era.

Around 1450, for the first time, it became possible to marvel at the ‘manuscripts’ created using the Gutenberg method. On the surface, they did not differ much from traditional manuscripts, as the first printed products attempted to imitate handwritten ones as closely as possible. They were printed on paper using a mechanical printing press with removable metal types. The development of paper manufacturing in Europe was necessary for the wider spread of printing technology, along with oil-based ink (varnish made out of flaxseed oil) that had been developed by Flemish artists in the early fifteenth century. Largely, Gutenberg did not invent printing from scratch by himself, but he was able to ingeniously combine different elements of existing features into a functional whole. Though the printing process was very simple, working it was slow. Gutenberg’s first major accomplishment, the printing of a Latin Bible that came out in 1455, took six printers a total of two years. A good indication of the significance of Gutenberg’s invention was that the method of text reproduction that he developed was used until the 1960s, when phototypesetting became more common.

Although Gutenberg’s sponsors, the businessman Johann Fust and Gutenberg’s future son-in-law, writer Peter Schöeffer, forbade their printers from revealing the invention to outsiders, the spreading of the new method was impossible to prevent. Printing presses were first founded in cities in the Rhine Valley, a little later in the valley of the river Po in northern Italy, and finally in all major European cities. By 1500, there were already printing presses in 250 localities in Europe, especially in France and Italy in addition to Germany. In places like Orthodox Russia, however, printing spread
slowly. This was partly due to the Cyrillic alphabet, but was also due to the fact that, in Russia, literacy was the privilege of a very small elite. The Muslim world was strongly opposed to printing throughout the early-modern era; it even considered it a sin. Muslim opposition has also been seen as the reason printing technology spread so slowly to the West from China. The first Turkish newspaper, for example, was not founded until 1840. These examples show that the spread of printing technology, like many later forms of media, requires favourable social and cultural conditions.

New media technology did not cause a ‘revolution’ just because one person invented a technology, that is, any more than it has done later in the history of media technologies; rather, revolution ensued because an important technological problem was solved in a suitable commercial and cultural context. In other words, Gutenberg discovered the right technology at the right time. Another person who could well be considered the initiator of the ‘revolution’ of the printed word was an unnamed apprentice who worked at Gutenberg and Schöeffer’s printing press, who was ready to leave his master’s workshop and travel long distances carrying the necessary equipment and necessary knowledge. His future apprentices did the same, which gradually gave birth to a network of printing presses, where people in the industry knew each other. The most successful printing presses began to found branches all over Europe.

When looking at communication and traffic connections in the fifteenth century, the wide spread of printing in Europe during the first three decades can be considered revolutionary. By 1480, there was a printing press in 110 European cities and towns, and in 1500 there were 236. It has been estimated that around 12.5 million books were printed in the fifteenth century, and about 150 million in the seventeenth century. These numbers were significant even relatively speaking, given that there were fewer than 100 million people in Europe, of which only a small percentage could read. Printing and trading books was therefore an international business from the very beginning. Every literate person was theoretically able to obtain a book to read.

Since printing books was a business, it had to be financially profitable. At first, books were bought mainly by clergymen, so most printed books were religious: Bibles, prayer books and writings by classic medieval theologians like Thomas Aquinas (1225–1274). As the reading public grew, the share of religious literature decreased, so that by the 1520s it was already in the minority. Besides religious books, printed books included large numbers of Latin grammars and the classics of antiquity like Seneca and Cicero. The number of books printed in the vernacular was only about a quarter of those printed in Latin, but their relative share grew constantly. Especially in Italy, texts in the
vernacular also began to reach their reading audiences, and there were many reprints of the works of Dante, Boccaccio, Petrarch and Bruni.

‘REVOLUTION’ OF THE PRINTED WORD

Cheaply mass-produced writing and literacy gradually spread to all layers of society in modernizing countries. The printed word weakened the supremacy of the Church and created a realm of enlightenment based on science. It played a significant role in the Renaissance, the Reformation and the creation of nation states. An influential study on the importance of the printing press in early-modern Europe by the American historian Elizabeth L. Eisenstein emphasizes the ‘revolutionary’ nature of printing in the phenomena of cultural history.\(^{26}\)

Printed books really became common during the first decade of the sixteenth century. Thereafter, they gradually replaced the handwritten book, and after the mid-sixteenth century, handwritten books were only used for special purposes among the learned.\(^{27}\) They could not compete with printed books, but they became even more expensive luxury products. It has been estimated that, whereas copying one book manually took about a year, the earliest printing presses could print the same item in a couple of days.\(^{28}\)

In Europe, the Church had dominated ‘the word’ with its iron grip for centuries, but in a typographic culture this monopoly was dismantled. The crucial thing from the perspective of social history is that as printing and literacy spread, the old hierarchical superstructures could no longer monopolize the word the way they had for almost 5,000 years. Simultaneously, they lost control of information, of the ‘truth’. A famous study of this is the classic of microhistory, *The Cheese and the Worms*, by the Italian historian Carlo Ginzburg.\(^{29}\) The book is about a sixteenth-century Italian miller named Menocchio, who was executed by the Inquisition for propagating a worldview he had learned from books but had formed independently, not in line with the teachings of the Catholic Church.

As Ginzburg writes,\(^{30}\) Menocchio’s case was made possible not only by printing, but also by the Protestant Reformation. Printing had an obvious and well-known close connection to the Reformation of the Church. When Martin Luther (1483–1546) nailed his 95 Theses on the door of the Augustinian chapel in Wittenberg, his act was not unheard of. It was fairly common for medieval theologians to argue about clerical matters in public. What was exceptional was that these theses, which Luther had intended for the learned elite, did not remain on the chapel door, but spread so widely – even to the
surprise of Luther himself – it was ‘as if the angels themselves had been messengers and brought them before the eyes of all the people’, as one sixteenth century chronicler wrote.\textsuperscript{31}

The messengers were not angels, however, but travelling preachers and traders who spread copies all over Europe. Luther’s criticism of the sale of indulgences and other actions of the Catholic Church spread mainly because the theses were printed. An efficient network of printers was born that was comparable to the ‘super nodes’ of the internet, computers operating in peer-to-peer networks as temporary servers and sharing contents informally with one another. Nevertheless, it should be emphasized that oral communication still played an important role when Luther’s theses and the Reformation of the Church were discussed in homes, taverns and inns.\textsuperscript{32}

It could be said that the activities of Luther were the first ‘media campaign’. The Reformation in the early sixteenth century was the first great ideological conflict where the printed word played a significant part.\textsuperscript{33} Luther wanted the Bible to be translated into the vernacular, but translating into German was not easy, because standard written German did not yet then exist. Luther’s Bible translation did, however, help create a standard for the many dialects of the German language. The translation was a threat to the Church because until then only priests who knew Latin had held the monopoly on spreading the words of the Bible among the people.

Luther and his adherents understood the possibilities of printing as a method of mass information, and the distribution of flyers and posters was organized carefully. Travelling salesmen went from city to city, town to town, door to door distributing information about Luther and his theses. Then Luther himself with his adherents began to travel from one town to the next to spread the new word. Here, printing was also efficiently utilized by advertising every speaking engagement with posters and flyers. This way, information was quickly spread to all people. In the next stage, the same channels were used to spread the reformers’ texts, essays, sermons, polemics and finally actual books, such as Luther’s \textit{New Testament} (1522) and \textit{Small Catechism} (1529). Between 1518 and 1525, more than one-third of all books printed in Germany were written by Luther.

The large-scale distribution of holy texts in the vernacular – that would also reach large masses of people quickly – would not have been possible without the possibilities created by printing. There are many interpretations of the effects of printing on the Reformation, and vice versa: did printing enable the Reformation, or did printing spread so quickly because of the Reformation?\textsuperscript{34} In any case, there is no doubt that, in the hands of the reformers, the new technology became a useful and effective weapon in the battle for the hearts
and minds of believers. Through a book, it was possible to encourage doubters and to strengthen the faith of those who already believed by giving them arguments to help win religious debates. At the very least the new medium, printing, made the revolution considerably easier, because it allowed for the better coordination and synchronization of action. Similar characteristics can be found, for example, in the Arab Spring of 2011, where social media facilitated the movement.

Protestants can be said to have been the first ones to utilize a ‘media attack’ in their activities. Their purpose was not only to spread their own messages, but also to weaken the Catholic Church. The Reformation also facilitated privatization, as now even ordinary people like Menocchio the miller were able to read the Bible by themselves. One should keep in mind, however, that few people at the time could read, even in Germany. Oral communication therefore continued to exist also in the era of the printed word, and pictures also remained an important form of communication.

Printing was also crucially important for what is called the scientific revolution. This refers to the advances, especially in natural sciences, between the sixteenth and eighteenth centuries. Of particular importance were the discoveries of the astronomers: German-Polish Nicolaus Copernicus’s (1473–1543) ideas about a heliocentric world and the accurate observations about celestial bodies by the Dane Tycho Brahe (1546–1601), the Italian Galileo Galilei (1564–1642) and the German Johannes Kepler (1571–1630).

Not only did printing enable the rapid spread of the astronomers’ theories, it was also important for preserving information. Tycho Brahe was the first to efficiently utilize printing technology. Facsimiles of old texts made it easier to spot things like anomalies, which are an essential part of the birth of scientific paradigms. He then made corrections to the texts that could again be made more precise later. Astronomers also no longer had to copy old texts, and they could compare different theories. Their representation became considerably easier when it became possible to print various formulae and charts. It has been estimated that prior to the year 1500, approximately one-tenth of all books were ‘scientific’. At the time, however, the role of the book in science was technical rather than theoretical.

Printing also created new opportunities for other fields of science, such as medicine. The accomplishments of the Belgian Andreas Vesalius (1514–1564) and the Englishman William Harvey (1578–1657) in the study of anatomy and blood circulation were dependent on printing technology. The anatomical engravings drawn in Vesalius’ De humani corporis fabrica, for example, were influential in their detail; printing enabled a considerable leap in quality in the study of the human body. Besides great individuals in science, later
in the seventeenth century the era also gave birth to the famous scientific organizations the British Royal Society and the French Académie des Sciences. Geography benefited greatly from printing technology, when it became possible to print maps and distribute them widely. Map-makers utilized ‘crowdsourcing’ early by asking people to send information about their coastal areas to the publisher.\textsuperscript{40} One might argue that printing also gave birth to the media of participation, which are usually associated with our social, digital era.

Less attention has been paid to the importance of printing for the Renaissance and the birth of humanism. This is partly because the Renaissance and the modern era have been considered to have begun before the discovery of printing in Europe. The periodizations of ‘modern’ have varied, however (more on this in Chapter 6). Even if the Renaissance is recognized as having already begun during the era of chirographic culture, it is still obvious that the opportunity for the large-scale copying of books enabled by printing facilitated this ‘rebirth’ of art, culture and thought.

For the learned, printing offered a framework of time and space.\textsuperscript{41} The broad admiration of antiquity during the Renaissance, for example, was easier when literature related to it was available. Printing did indeed play a significant part in the spread of Latin. Not only did the texts of antiquity become available to broader groups, but the language also developed when books were written about Latin grammar. Before the year 1500, about 77 per cent of all books were in Latin.\textsuperscript{42} Also an increasing number of texts were published in Greek, especially Cicero’s works. ‘Engineers’, craftspeople, artists and philosophers could study each other’s thoughts and working methods more easily through literature. The role of clergymen as buyers of books began to decrease from the sixteenth century onwards, and many growing social and professional groups, such as lawyers, became important book-buying professions. This also gave birth to the image of an individual thinker and artist as a great person, also part of the modern world of art and media when printed portraits of people were published broadly.\textsuperscript{43} This led to the creation of an early version of the European intellectual. Printing also significantly facilitated international scientific dialogue, when results could be compared and evaluated, and the illustrations related to them copied precisely.\textsuperscript{44} For science, it meant the birth of peer review, which is an essential part of twenty-first-century scientific research.

The gap in the consumption of books between Europe and the civilized countries of Asia (China and Japan) was torn wide open. One explanation that has been offered for this is that the human capital of the Europeans was larger than that in the Far East or elsewhere in the world. Although books would remain ‘luxury products’ for a long time, there was still purchasing
power in the growing cities of Europe, and even as precious goods the prices of books decreased more than the average consumer price index. With religious movements, books and literacy also began to spread to the lower social groups.\textsuperscript{45}

The effects of printing were not only indirect, but also abstract. Its effects on culture have been analysed by many media theorists, Marshall McLuhan and Walter J. Ong foremost among them. McLuhan says that the printed book was the first ‘teaching machine and also the first mass-produced commodity’. At the same time, printing was the first method of mechanizing craftsmanship. It was individual in a new way and separated thought and emotion – the head and the heart – as well as art and science and poetry and music.\textsuperscript{46} Ong considered typography to encourage people to think about things as neutral, cold, objective facts. The printed text encourages a sense of closure, a view of a finished, completed state. In principle, these characteristics had already existed in chirographic culture, but the printed word was much easier to read than the producer-oriented handwritten word. Printed text was consumer-oriented and also more reliable.\textsuperscript{47} McLuhan’s student Neil Postman has emphasized the way in which the printed word facilitates an intellectual understanding of the world. We must learn to ‘negotiate in the world of abstractions’, which ‘requires considerable powers of classifying, inference-making and reasoning’.\textsuperscript{48}

As the production and reception of texts (and printed images) were separated, an anonymous audience was born. One could say that modern media were born when, for the first time in the history of communication culture, an ‘external’ tool of communication was placed between the production and reception of texts. Typographic culture also gave birth to the idea of the (romantic) individual, creative literary work that should not be plagiarized. This was a departure from the culture of speech, where it does not matter if someone else’s inventions are borrowed. This was the beginning of intellectual property rights, whose establishment would still take several centuries.

One should still keep in mind that the general spread of literacy is a much more recent phenomenon than the mechanical reproduction of texts. In Western Protestant societies, the wider spread of literacy began in the seventeenth and eighteenth centuries, and universal literacy was only really achieved with the development of the school systems of nation states starting in the nineteenth century. In the sixteenth century, many books were still too expensive and often targeted at a specific profession. The first cheap books were the so-called chapbooks. They were small booklets about saints, miracles and romances. Besides common folk, their readers were also aristocratic
women. They can be seen to involve a certain kind of escapism associated with popular culture entertainment. The printed word started to become part of popular culture at least by the seventeenth century.

The creation of an official national written language began in Italy, but was actually realized first in France in the sixteenth century, when the kings of France encouraged its introduction as part of national unification. Of the large countries, in the areas where printing spread in Spain and England the development was slower. In smaller countries, like the Netherlands, the language population was too narrow. In Germany, the Reformation slowed down progress, although – as has been pointed out – it also made the German language more uniform in the long term.49

A new profession was born – the printers, who were a new group of craftsmen. At the same time, new media technology combined old and new professional skills, like it often did later. Old skills included the production of paper and ink, leatherworking and the binding and sale of books. New skills included printing, typesetting and typecasting. The Moors had brought paper to Spain as early as the twelfth century, but only printing made it a commonly used material. Parchment was too expensive for mass production. Still, a few of Gutenberg’s first Bibles were printed on parchment. An estimated 300 sheep were used for the covers of one Bible. Parchment was used for book covers for a long time, however.

THE BIRTH OF NEWSPAPERS

One group of printed products created by the spread of printing were newsletters, which described some notable event, usually illustrated with pictures. The roots of newsletters lie in the universities and monasteries. The University of Paris had a messenger service as early as the thirteenth century. There was also regular postal traffic between monasteries, and the postal system developed even before printing.

In the sixteenth century, newsletters became something of a predecessor to newspapers. The American communications researcher Wilbur Schramm has classified newsletters or news publications from the late sixteenth to the early eighteenth centuries into four different types: a relation was a one-time publication about a single event, such as a battle or a coronation. A coronto was a booklet about foreign news. A diurnal was a regular publication about a single subject, typically to do with government. A mercury was a booklet that looked at events for a six-month period. There were also various national variants of these groups. Newsletters were sometimes published even in the twentieth
century, and the tradition lived on in the form of ‘telegrams’ that papers published as special issues when particularly important news was discovered.\textsuperscript{50}

Behind the distribution of newsletters was the need of mercantilist rule and trade to receive up-to-date information about trade relations and world affairs in a broader sense. The distribution of news grew as stock market activity became commonplace. The subjects of newsletters included things such as plagues, wars and changes of sovereigns. As such, when newsletters dealt with events like natural disasters or miracles, they could be seen as an initial form of the ‘yellow press’ that appeared in the late nineteenth century (see Chapter 3). They also included announcements about things like the harvest, failure of crops, shipping schedules and prices. Major trading cities were the centres of news activity. The trading house of the German merchant family Fugger played an important role in the distribution of newsletters, when it started regular courier traffic between its trading posts around Europe. Initially the newsletters were handwritten, but soon they were also printed. The press and news were born when the private correspondence of merchants began to be circulated more widely. The merchants did not really need publicity, but with time the papers they established also began to publish materials other than just trading information. This ‘leftover class’ of news thus became a trading commodity in itself. Information had, however, become a trading commodity earlier with the invention of printing.\textsuperscript{51} Nonetheless, the first newspapers still resembled private letters and had no conscious typographical structure.

The ‘journalism’ of newsletters emphasized factuality. This was mainly because merchants and trading houses needed information in trading that was as accurate and reliable as possible. They were also news-like in nature because they often included previously unpublished information, even though the information could be months old when it came out. In this regard, these precursors to newspapers mainly resembled present-day financial newspapers and newspaper finance sections. Also at this stage newsletters were apolitical, so journalism was not political at birth.

Printers also sold newsletters to audiences gathered at markets or fairs. They often included an engraved picture, and were therefore also of interest to the illiterate. In the sixteenth century, the circulation of newsletters was only measured in a few hundred copies at most. Yet printed newsletters were already given names, which created continuity. One common part of newspaper names was \textit{Gazette}, which was derived from a newsletter in Venice costing one \textit{gazzetta} in the sixteenth century. Another predecessor of newspapers were various flyers that could be used to distribute information and opinions relatively cheaply while avoiding censorship. The Thirty Years’ War (1618–1648) was the golden era of flyers in Europe.
The actual newspapers were born when printed newsletters began to be numbered and published under the same name at regular intervals in the seventeenth century. This finally separated them from correspondence as an independent phenomenon of their own. The first regular newspapers were founded in Germany, Britain, the Netherlands and France – in other words, the countries central to European trade and colonialism. At the Frankfurt fair, for example, fair relations were published twice a year from the 1580s onwards. They also included news, though this was old compared to newsletters. Newspapers mainly distributed foreign news, but as early as the seventeenth century they included advertisements mainly about the products of merchants. The birth of newspapers did not ‘kill’ the newsletters, however; they continued to live on in the form of things like political pamphlets, and therefore took a political form.

In the first phase of the press, it was in the hands of a small elite and was addressed to elite individuals, which is why its history from the seventeenth century onwards in the trading centres of Europe could be referred to as the elite press phase. In addition, its elitist nature arose purely from the fact that most of the lower social groups including the peasantry were illiterate. The lower social classes were sometimes even warned against reading newspapers. Circulations were very small, and topics were still mostly related to trade. Elite press journalism was largely similar to the era of newsletters, although the types of articles in newspapers expanded from trade to other matters. Due to censorship, the main focus was still on foreign affairs, however: writing about domestic issues, especially ones related to the government and the sovereign, was usually not allowed. On the other hand, merchants were already familiar with domestic and local matters, so there was more demand for foreign news.

The oldest surviving volume of a newspaper is the Rorschacher Monatsschrift from 1597. This paper contained news and came out monthly, so it cannot yet really be considered a proper newspaper. The Relation aller Fürnemmen und gedenkwürdigen Historien from Strasbourg and the Avisa Relation oder Zeitung (later Aviso) from Augsburg are considered to have been the first newspapers. They were both founded in 1609 and came out weekly. The Frankfurter Journal, established in 1615, included a selection of news. In the seventeenth century, interest in news was fuelled by the Thirty Years’ War, which began in 1618. The oldest newspaper still in existence is the Wiener Zeitung, whose publication was only interrupted by the Nazi occupation of Austria. Besides German-speaking areas, newspapers were published in the Netherlands, France, England, Spain, Sweden and Denmark in seventeenth-century Europe.
Especially in the German-speaking world, newspapers were initially published by postmasters, whose job made it easy for them to obtain news by correspondence. Gradually, publication was transferred to printers, who had the technical equipment. Elite papers were also still mainly newspapers with little editorial content. Personal views in newspapers were expressed mainly by the correspondents rather than editorial staff who were often synonymous with the publisher and printer. News still consisted mainly of foreign news. The appearance of seventeenth-century newspapers resembled books, letters, flyers or small printed items and had no journalistic typography. The papers were thin and pictures were rare. Columns were introduced in the 1660s when the London Gazette – for a long time the only official state newspaper in England – adopted a two-column format.

THE PRESS BECOMES POLITICAL

The rise of the press from the eighteenth century onwards was linked to the development of capitalism and the growth of the importance of the bourgeoisie with it; after all, papers mostly served trade, particularly the manufacturing industry. The objectives of the bourgeoisie were economic and political as well as cultural.

This phase in the history of journalism from the eighteenth century onwards has been called the phase of politicization of the press.\textsuperscript{54} It was based largely on a tension between the old and the new elite. The rising bourgeoisie wanted to improve its economic, political and cultural influence alongside the ruler and the nobility and the clergy who supported the ruler. The bourgeoisie advocated the elimination of trade restrictions, representative democracy and greater intellectual freedom, especially in science. The press helped promote these goals, and a relationship began to develop between it and the birth of new political parties. As the Finnish scholar of journalism Pertti Hemánus\textsuperscript{55} has written, ‘ideology and a political thinker and a politician as an organizer of political activity were often combined within the same person’.

The eighteenth century gave birth to a new type of reporter, rather free and creative compared to the earlier role of the reporter as an intermediary; it is along such lines that opinion journalism developed.\textsuperscript{56} Censorship already played a significant role, however, and freedom of speech became an important factor in Libertarian theory (more on this in Chapter 5). At this phase, more economic resources were being spent on the press. Circulation expanded, albeit slowly, as growth was dampened by illiteracy.
A forerunner in the triumph of the new elite was England, where the Glorious Revolution of the late seventeenth century (see the sub-chapter ‘Democracy and Media Systems’ in Chapter 5) gave rise to parliament, which obtained many essential constitutional political rights (Bill of Rights) in relation to the king. One of the liberal and democratic reforms brought about by the new law in 1695 was the abolition of the Licensing Act, which had limited the number of printing presses. After this, the English press became partisan, and newspapers were divided into conservative (Tory) and liberal (Whig). The press was allowed to express its opinions rather freely, especially in the English colonies.

After freedom of the press made England the leading press country in the eighteenth century, it also gave rise to the first famous journalists. Literary talents, such as Robinson Crusoe author Daniel Defoe (1660–1731) and Anglo-Irish Jonathan Swift (1667–1745), author of the political satire Gulliver’s Travels, became journalists and assistants in the English newspapers. They also developed journalistic innovations: Defoe developed editorials and serialized stories, Swift developed the letters to the editor section. This way, the press sought to activate its readers in understanding the world more broadly and equivocally. In many countries, for a long time, newspapers only came out a couple of times a week at most, but the English Daily Courant started coming out daily as early as 1702. Freedom of the press was not absolute, however, and there were attempts to withhold crucial information, which was one way of limiting the potential of mass communication. Reports on sessions of the parliament, for example, were prohibited, although this prohibition was circumvented. The Gentleman’s Magazine, for instance, disguised its stories as reports on the representative body of ‘Lilliputia’ (‘Debates of the Senate of Magna Lilliputia’) and used easily recognizable pseudonyms of people.

In the Netherlands, also, the newspaper became a popular institution as early as the seventeenth century. The Gazette de Leyde, founded in 1677, became especially important due to its attempt to remain neutral in relation to the court and to cover political conflicts in a diverse fashion. It also had a relatively large network of correspondents extending all the way to St Petersburg. At the background in the Netherlands was the tradition of political pamphlets and, most importantly, a freedom of printing that was quite broad for its time. This was not so much due to a desire to protect the free press but to the fact that the Netherlands lacked a strong central government that could have monitored printing. Printing presses were located in large cities where the location of the press could be easily moved. Authorities also had little interest in publications that were shipped abroad.
thus became an important place for people like the French, who printed many of their texts there to avoid censorship.

The press in the United States was involved in a battle between the old and new elite similar to Europe. The old elite was represented by the British colonial masters. The year 1721 gave birth to the *New-England Courant*, whose most famous writer was its founder’s younger brother Benjamin Franklin (1706–1790). The founder James Franklin (1697–1735) was even sentenced to prison for a year for criticizing the government in his paper. Benjamin also published his own newspaper, the liberal *Pennsylvania Gazette*. Benjamin Franklin did not just own a newspaper, but also a paper mill, a type foundry and an ink factory. Other Founding Fathers of the United States, such as John Adams (1735–1826) and Thomas Jefferson (1743–1826) also wrote actively in newspapers.

After independence in 1776, press in the United States also became partisan, but overall remained relatively liberal. The United States was the first country where the press detached itself from the state. It has been said that the American Revolution would have never been possible without the press. Revolutions have also influenced the press, as they give rise to much news and other content.

The pamphlet *Common Sense* by Thomas Paine, one of the most famous agitators of the American Revolution, played a crucial part in this historical event. It was distributed hand to hand and read as ‘social media’ at homes, shops, taverns and coffeehouses, and therefore acted as a unifier for views on the revolution. Within the first three months alone, 100,000 copies were sold – an edition whose size was not surpassed by any book during the eighteenth century.60

As the printed word had played such an important role in the revolution, with independence the famous First Amendment was added to the constitution, which guaranteed freedom of the press. The idea that the press was ‘the fourth estate’ has been attributed to the view of democracy created by the third President of the United States, Thomas Jefferson. Jefferson’s view included the idea that because citizens must be free, information also had to be allowed to flow freely. In addition, The First Amendment included the demand that those in power may be criticized, if necessary. Although freedom of speech was not defined in the amendment in any way, it emphasized the responsibility not to abuse it. A key part of the amendment was that Congress is not allowed to enact a law that would limit freedom of speech: an enlightened citizen had to be protected through rights. All in all, the First Amendment was the most important article of the Constitution of the United States, because it already included all the key elements of a modern, democratic system of
This gave birth to the idea of ‘media immunities’, meaning that media are a vehicle of public communication, which puts them in a unique position in relation to other industries.

However, ‘Europe is the cradle of journalism’ – also in the etymological sense, since the term journalism has a French origin (jour, day), which came into use after the French Revolution. In France, an act guaranteeing freedom of the press was only enacted in 1881 under the Third Republic. The press played a role in the revolution, especially in the way in which the idea of the sovereignty of the nation spread. The years 1789–1792 were an exceptionally free period for the French press – even from a present-day perspective, since at the time the press did not have to consider advertisers, owners or organizational bureaucracy. Besides politicians, the revolution also gave rise to ‘journalists’. Of the actual politicians, Jacques René Hébert (1757–1794) became famous as the ‘Homer of filth’, as the first ‘muckraking journalist’ after agitating for violence and other extremely radical action in his satirical periodical Le Pére Duchesne. During the first decade after the revolution, there were approximately 350 newspapers and a total of about 2,000 printed items published in France. The press was not only a ‘child’ of the revolution but also its ‘father’, as it enabled and – most importantly – accelerated major changes related to the revolution.

Although the first actual newspapers came from German-speaking regions, Germany was an exception to major European cultures in terms of development of its press, which was quite modest compared to France and Britain before the early nineteenth century. The main reasons for this were the lateness of industrialization and the political climate. The region consisted of small, independent states until the birth of the German Empire in 1871. This meant that the press was also mostly local. States were run in the spirit of absolutism and political parties were prohibited. Distinctions between estates prevailed for a long time in Germany: the nobility did not have an independent position in relation to the ruler, and the dividing line between the nobility and the bourgeoisie, as well as that between the bourgeoisie and the rest of the population, was sharp. Instead of newspapers, magazines and the reading groups formed around them became important in late-eighteenth-century Germany. After many turns, censorship was abolished in 1874, although the ‘Iron Chancellor’ Otto von Bismarck (1815–1898) limited freedom of the press in the spirit of authoritarian theory. Meanwhile in Russia, the tsarist regime had a negative view of the free press, and the first new elite papers only started coming out in the late eighteenth century.

The politicization of the press was largely due to the fact that politicians of the yet undeveloped political parties saw the potential of the press in winning
over voters. Politicized papers were small, but already rather diverse in content. News was borrowed from foreign papers, because the freshness of news was not too important yet. The London-based *Morning Chronicle*, founded in 1769, was the first paper to use its own correspondents in politically important countries, and the paper’s owner James Perry (1756–1821) himself travelled to Paris to report on the French Revolution. Another factor that affected the development of politically opinionated journalism was enlisting literary talent for the service of the press. Typography also began to develop. *The Morning Post*, founded in London in 1772, established the front page story with its visible ‘screaming’ headers.

The liberation of the press goes hand in hand with the birth and shaping stage of the multi-party system that is part of democracy. The press did not start the formation of parties, however; rather, the development of society as a whole accelerated the development of parties and press alike. The press was an important tool in political conflict. In revolutions in particular, such as in France and the United States, the press, that is the media, played a significant part, even though the printed word in a broader sense – including pamphlets, almanacs, ballads and other printed products – was not the initiator of the revolution.

With the politicization of the press, general societal consciousness expanded. At the same time, a new influential professional group was born – the journalists, who have since then been called ‘the fourth estate’. The term is said to have been established by Edmund Burke (1729–1797), leader of the English Whig Party, who called the press the fourth estate in his speech before parliament in 1787, after the press had been allowed into parliament for the first time. The other estates were the nobility (the House of Lords), and the clergy and the middle class (the House of Commons). There are also other views among historians about the origin of ‘fourth estate’, a term that only became common later.
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