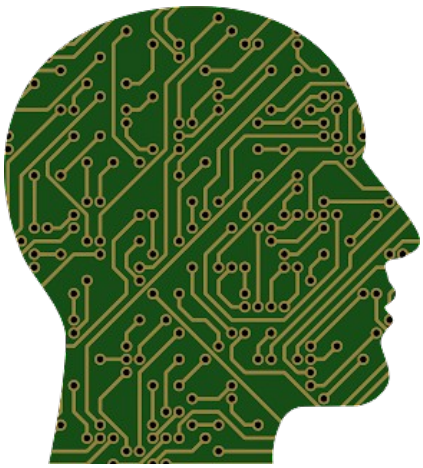
DIGITAL ENCYCLOPAEDIA

A look at digital literacy



NDE ITALIA S.r.l.
Headquarters: Via Silvio Pellico, 10041 Carignano (TO)
VAT no.: 12413100012
Unique code: W7YVJK9

SUMMARY

FOREWORD

Let us take as a case study the universal law known as '**cause-effect**', meaning that every cause corresponds to an effect, and every action generates a result.

In Eastern culture, it is identified with **Karma**, a word in widespread use among the population.

This word has entered our everyday vocabulary also in the West, but few really know what it means. It is often wrongly and improperly associated with one's destiny, with the discourse of events; its true meaning lies in the root of the Sanskrit verb '*Kr*' which means to act, to do, to produce, taking the meaning of 'action performed'. A conscious action, driven by the will.

Let us now look at the 3 different types of actions:

Actions imposed

When a person drives a vehicle on the road, pilots an aircraft or operates a boat, his actions are conditioned by certain rules, such as road, flight or navigation regulations. If the driver of a car has to turn left, he must signal his intention in advance by turning on a light bulb. The action is imposed by a law, or set of laws, to which the person refers, in order to interact correctly in the real world and not cause harm to himself or others. Similarly, the procedure to register on a digital platform is only one. The procedure to make a transfer through a specific banking app is only one, the procedure to create an electronic wallet on a specific infrastructure is only one. So if the individual wants to access a service, he has to perform a specific and determined procedure (set of actions). In other words: if I perform the indicated procedure I enter the system and interact with it, if I make a mistake or skip some step I cannot enter and get to work. These actions are in fact dependent on knowledge of the procedures themselves. The individual who knows the sequence of actions and completes it achieves the result, if he does not know it or knows it in part he does not achieve the objective.

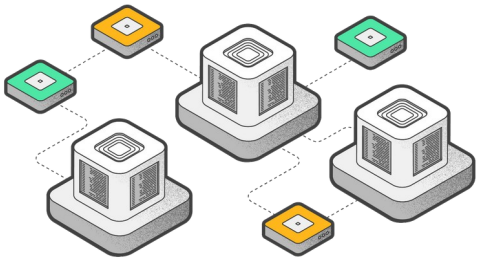
Actions Generated by Automatisms

A spoon is used to eat soup, we are not born with a spoon in our hand. In some populations around the world, food is eaten directly with the hands and others with different tools: knives, spoons, forks, wooden chopsticks, shellfish hooks, skewers. The same dish can be eaten in different ways given the many cultures and customs around the world. For an Oriental, it is as normal to eat rice with a wooden chopstick as it is for a Westerner to use a fork. If an Indian, a Chinese and a European were

sitting at the same table, the same dish would be eaten differently by those present. Therefore, the action of eating with or without utensils would take place through an automatism acquired from birth; each of them would probably find the habit of the others funny and unusual. In the digital world, an example of automatism is found in the entry of credentials to access a given profile, site or wallet; to do so, the individual must enter an identifier and an associated password, be it a security phrase, 12 keywords or biometric recognition (fingerprints).

Conscious action or free will

Man as a species is endowed with the faculty of choice; he can choose whether or not to exercise every day just as he can choose whether to eat a sandwich or a cake for lunch. What matters is that the person decides whether or not to perform an action. In relation to the principle of 'cause and effect' everything that exists relates to what is around, nothing exists independently. Similarly, no person lives totally independently, with the possible exception of a hermit living in a cave isolated from any civilisation. If I want to live in a modern civilisation I will need a place to store my money, financial assets or valuable digital property. I will therefore have to rely on one or more deposit systems (electronic wallet on blockchain, bank account, postal cost, etc.), so as to interact as much as possible with the outside world, in order to get what I need.



In all three cases, there is nowadays a need for Digital Literacy, as a tool for knowledge and assistance, in daily practices as well as in occasional operations.

Returning to the concept of karma, it is therefore closely related to the term 'interdependence', since the relationship between two parties affects both. To return to the previous example, if I want to live in an isolated cave surrounded by nature, far from civilisation, I will never enjoy modern digital services with which people exchange goods and services.

If I want to take advantage of modern digital services, I will have to:

- Knowing them (there are tools of free access or of obligation if we are part of a government machine-system);
- Choose which to use, whether arbitrary or forced to use by a system we decide to live by;
- Learn to use those chosen or those of obligation for the context in which we live or operate;
- Use and exploit modern tools to your advantage.

At the gates of the 19th century, literacy involved the masses, and in particular the poorer classes, in most countries around the world; courses and schools were created for all ages, because young people would be the future of modern society, while parents had to know how to read and write in order to obtain a loan, sign a purchase or lease contract. Merchants, entrepreneurs, industrialists had to keep up with the times in order not to go bankrupt due to increasingly complex contracts.

In 2000, we witnessed the era of mass digitisation. Whereas in 2020, the concept of Digital Literacy was born.

In the digital sector, it is assumed that with each passing month, the evolution given by the digital sector is equal to the evolution that takes place in a year in the traditional everyday world.

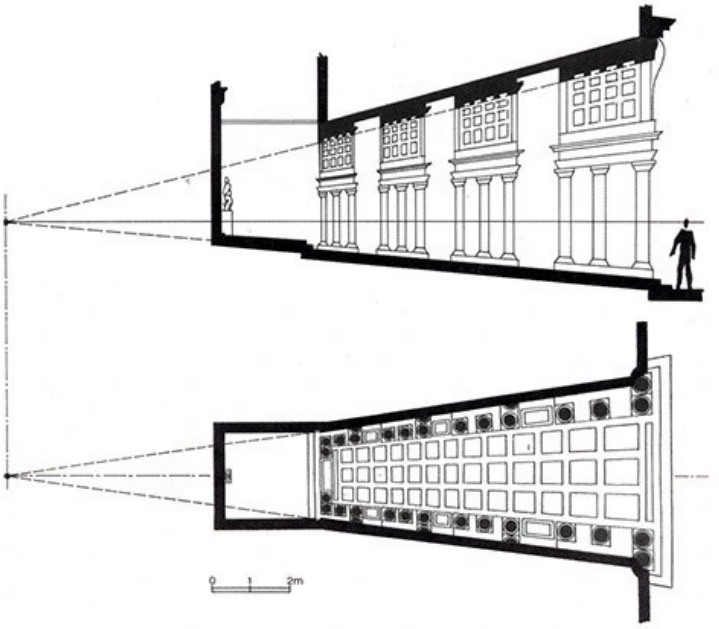
Here comes a human limitation: **resistance to change**.

This concept has been known for millennia. Man has within him a defence mechanism known as resistance to change. It is generated by our mind instinctively, to protect us from fear and disappointment. Man creates his own automatisms, repeating them every day; this mechanism is generated to bring his actions back to the same executive pattern, limiting exceptions. It becomes harmful when it becomes necessary to learn a new habit, or eliminate a pre-existing habit, because it prevents us from doing so easily. Changing automatisms at the age of 20 is already difficult in itself, during adulthood it requires even more effort, beyond the age of 70 most people completely cease to be interested in changing and evolving.

Resistance to change is widely used in architecture. The gallery of *Palazzo Spada in Rome*, designed by *Francesco Borromini* (1635), deludes the common observer, precisely to visually demonstrate this resistance to change that is inherent in man.

In a very cramped space (8.60 m long), the architect managed to give the perception of a corridor about 40 m long.

The frontal arch, 6m high and 3m wide is reduced in the back to a height of 2m and a width of 1m. From a first frontal view, in fact, the corridor appears immense and monumental, only by walking through it can one grasp how the architectural play tricks the visitor's mind.



This is a fairly recent example, but perspective has been used for this purpose since the earliest civilisations, precisely because **our brain tends to associate what it sees with images it already knows**.

Finding evidence in architecture leaves no doubt about the vast knowledge of our mind, enriched over the centuries. From the moment man abandoned nomadism and became a sedentary social being, the difficulty of eliminating automation and habit has increased over time. Overall technological improvements, here understood as the ability to reduce the time and effort required to complete a task, have contributed significantly to raising the bar. As the ease with which a good is obtained increases, something peculiar happens within us: we become absorbed in our pleasure, forgetting the effort with which that good was previously obtained, secure in the knowledge that we can again rely on the shortcut. In other words, more and more effort is required to overcome the mental patterns ingrained in our minds in order to cross the line of resistance and create new automations free from the chains of habit.

The important thing is to become aware of it.

Those who could neither read nor write 200 years ago, were aware that they were not autonomous and were limited in many actions; nowadays, the situation has not changed one iota, those who do not have access to the digital world or are not able to move around in it necessarily need support, just think of electronic invoicing, booking leisure trips or medical services.

Today, in the world of digitisation, it is important to know that digital literacy is already underway. There is logically free will, each individual can decide to **become digitally literate** or decide not to do anything about it.

Returning to the evolution of digital, its expansion is considered about 12 times faster than the evolution of the traditional world. If humans have resistance to evolving and changing habits in everyday life, let alone 12 times faster to keep up.

When artificial intelligence takes over in the systems, the speed of evolution may be 100-1000 times faster than the traditional one. *Who will be able to evolve that fast in the same time frame? Will man be able to cope psychologically with this rapid evolution? Why do 99% of futuristic films tell of survivors, total destruction of the earth, war between machines and humans? Have you ever wondered why? What would happen if artificial intelligence took over and humans were unable to evolve at the same speed? What would happen if artificial intelligence, evolving with every passing minute, needed more and more energy, more and more power, more and more expansion, and humans were slow or even incapable of providing it? If in the future artificial intelligence were to see the human being as a competitor, or as an obstacle, consuming energy and resources to live, how would it react*?

Today, artificial intelligence has already achieved impressive evolutionary achievements.

What would happen if it were applied in education, medicine, mass robotics, services and all sectors? If humans were to be replaced in their activities by robotics and artificial intelligence, what profession would they be able to practise?

In the last few days during the writing of this ebook, there has been much discussion about the integration of the latest artificial intelligence models within video games. AI would find application in the so-called 'NPCs', the 'non-playable characters', entities in the video game with the sole purpose of performing poor programmed options: they tend to be static, do not change over time during the game and interactions with them are often limited or repetitive. They are usually handled by a very basic artificial intelligence: in a fighting game, for instance, enemies use attack moves based on an algorithm.

The true sophistication of video games often lies in the complexity of the non-player characters. Titles such as Call of Duty, NBA 2K or FIFA require enemies that meet certain standards of artificial intelligence to avoid repetitiveness and banality in the game. Advanced AI as NPCs would allow

behaviour similar to that of the playing characters, as if they were moved by their own instincts.

Now, what would *happen if we gave the capacity for autonomous thought to these entities? Would they benefit from it, thus increasing their prestige, or would it cause them to lose control over the game itself?*

A well-known Ferrari designer from Turin in the 1990s used to say: '*He who knows, does; he who does not know, teaches; he who does not know and does not teach, criticises*'.

Presented here is the paradox of today's popular masses, in which the average citizen does not possess the knowledge of machining and consequently does not know how to teach it; to avoid feeling inferior, the loophole most often used is to damage the work of others to try to gain some consideration.

Criticism among professionals is constructive by definition, because the aim is to improve. Criticism of the ignorant masses is a defence to hide non-knowledge. Ignorance, from the Latin '*ignorantia*', is derived from the privative '*in'* and the Greek verb '*gnorizein'* (to know), so the literal meaning is lack of knowledge. Ignorant is one who has neglected knowledge of certain topics or notions, which could be acquired. Knowledge is often belittled without taking into account the process undertaken to obtain it. The necessary steps are arduous to overcome, but it is the overcoming of the steps that allows the result to be achieved.

We bring to the reader's attention an excerpt of a dialogue that took place between a professional basketball player and a journalist, during the press conference after the game that led the team in question to go out in the first elimination round of the championship for the title. Faced with the question whether the season was a failure, the Greek-born player began to shake his head, snorting before replying: 'You asked me the same question last year, Eric,' he explained, turning to the journalist. 'Do you by any chance get a promotion every year in your job? I don't think so, so do you consider your job a failure every time it doesn't happen? I would say no. You work hard to achieve more, to take care of your family, buy a house and many other things. It is not a failure, but it is a necessary step to try to win. Michael Jordan was 15 years in the NBA, he won six titles: were the other nine years a failure? Are you really telling me that?"

Failure can only be understood as such if the will to progress and repeat is lacking; taking the game of basketball as an example, **failure is giving up on improving.** Success is the perfect execution of a given movement, which may take a long time before manifesting itself; executing it on command in an excellent manner is the ultimate level to which one aspires. In the case of knowledge, failure is the decision to abandon or ignore the learning necessary for the possession of complete information.

Example: If a computer scientist with vertical expertise on augmented reality writes a treatise or article based on his vertical specialist work experience (he writes computer programmes that work with the law of cause and effect), his material can be analysed and judged by another expert of his equal level, amateur criticism from those who are ignorant of the subject matter has no technical value.

Digital technology is advancing rapidly. Today, there is no university course on digital as rapid in its evolution.

That is why the **Digital Encyclopaedia** project will start in 2020.

Project Mission: Bring together the knowledge of experts with vertical competences in the field of digitisation and make it accessible to the world in all languages, through a Digital Encyclopaedia that can be expanded in real time.

Between 2020 and 2022, a number of specialists in all the various digital fields are identified and the first draft of 60 volumes is created, which can be consulted in ebook format remotely.

The project was born in Italian and English.

The series has been translated into 28 other languages with the use of A.I. translators and subsequently revised and corrected by native speakers, which is currently being finalised.

In the second half of 2023, the first call for experts with vertical expertise who want to join the expansion of the project and make their contribution will be opened.

In 2024, the project expansion working table will be consolidated with the involvement of new vertical experts in each area of digitisation.

New chapters, fully developed ebooks on new topics, or simply revisions and corrections of the existing 60 will be added each year. This project is aimed at continuous evolution, to give everyone the opportunity to access information.

ECONOMIC CYCLES

The global economy follows long-term cycles, where periods of growth and innovation are followed by periods of contraction and adaptation. These cycles last about 50 years and are driven by technological innovations that change the way we produce, consume and interact with the world. Consequently, by the law of cause and effect they determine the way we live.

We are now in the midst of the fourth industrial revolution, where digitisation is at the heart of the innovations that are changing the way we live and work.

What is special about previous revolutions?

As happened during the French Revolution with the introduction of the school system for the masses, today we are moving towards a new plan of economic cycles. Literacy, now widespread in every corner of the globe, is about to give way to a new literacy, the digital literacy.

Up until the year 2000, all cycles had their transformations closely linked to human evolution. Since the early 2000s, given the almost ubiquitous presence of new technologies, not only programmers and other technology professionals, but everyone had to learn how to use computer-digital products.

2020 was the year of the definitive turning point in this respect, the pandemic forced us to isolate ourselves in our homes, forcing us to work and study remotely, while the first artificial intelligences were introduced to the general public.

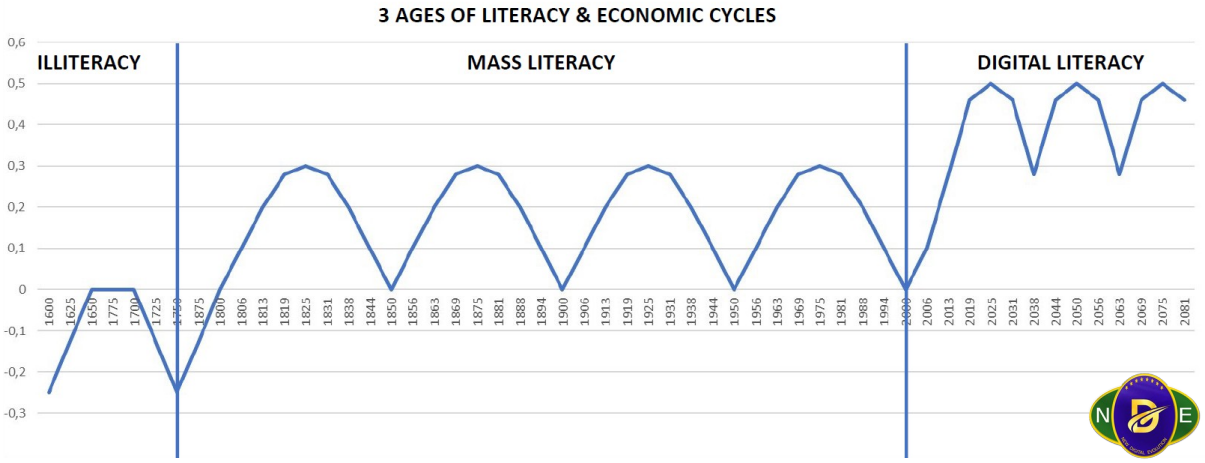
If previously those who were not literate were left out of the economic machine, at this moment in history those who have not learnt the right digital skills will be left out.

Let us briefly mention here the concept highlighted in the graph below.

For decades, various theories on the movement of economic cycles have been developed, which will be discussed in more detail in the special ebook '*Theory of Cycles*'; below you will see for the first time the graph identifying the 3 historical periods:

- *Mass Illiteracy*
- *Mass Literacy (1800-2000)*
- *Digital Literacy (from 2020)*

Dates may vary from area to area, the aim of the chart is to make the concept behind it understood.



The passage of time will only increase the new gap.

When illiteracy reigned in the old days, few have reached the present day, leaving incredible works for posterity.

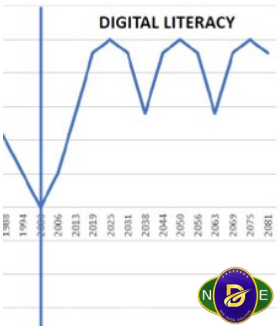
The cycles were very long: just think of the 100 Years War. To the construction of cathedrals that lasted decades or centuries. As digital literacy begins, everything speeds up, the amount of material being written multiplies exponentially as everyone brings their contribution.

In today's digital age, there are two factors to be taken into account:

- The evolutionary contribution by computer-technicians pushes evolution at a speed of about 12 times, a 1200% boost compared to everyday reality;
- The introduction of Artificial Intelligence and its applications.

Here we face the end of the previous period, and the beginning of a **new era**.

Just as in the 1800s one could no longer do without knowing how to read and write in order to live in a rapidly developing society, today one needs to **know about**



digitalisation.

Just as we experienced the transition from illiteracy to mass literacy, we will see a major shift to digital in these decades.

In the graph, the change of frequency is highlighted, so that you can understand and see that the change taking place in society will take the economy to a higher level and leave behind those who are not ready.

DIGITAL REVOLUTION

Well, we are witnessing a true **digital revolution**. Blockchain technology is changing the way companies do business, making processes more secure, reliable and decentralised. Web 3.0, on the other hand, is opening up new possibilities for digital interaction, where users can have more control over their privacy and data. Artificial intelligence and robots are speeding up processes in many sectors. To cite another example, supply chain tracking is making consumers more aware of the products they put on their table. The DAO will raise the level of awareness even further; the DAO-BLOCKCHAIN combination will take society to the next level.

Today, more than ever, it is therefore necessary to have a **digital education that keeps** pace with the succession of innovations and helps everyone, indiscriminately, to learn how to navigate in this **new reality**.

To remain competitive in this new reality, it is essential to have the right training. Encyclopaedia Digital offers the opportunity to learn everything you need to know about emerging digital technologies, such as blockchain, cryptocurrencies, smart contracts, digital assurance, interaction 4.0, Web 3.0, metaverse, NFT, DAO, how to protect yourself from digital scams and much more.

The project was born with the spirit of evolution, dissemination, global sharing. As mentioned earlier written in Italian-English and translated into 28 languages:

DIGITAL ENCYCLOPAEDIA IN 30 LANGUAGES

ITALIAN	*ENGLISH*	*FRENCH*
BRAZILIAN	*SPANISH*	*RUSSO*
GERMAN	*PORTUGUESE*	*JAPANESE*
GRECO	*CHINESE*	*CECO*
BULGAR	*BETTONE*	*LITHUAN*
NORWEGIAN	*OLANDESE*	*POLACCO*

KOREAN ○	*RUMANIAN* ○	*ESTONE*
SLOVAK ○	SLOVENIAN ○	DANESE
SWEDISH ○	FINNISH ○	TURCO
UKRAINE ○	HUNGARIAN ○	INDONESIAN

DIGITAL ENCYCLOPAEDIA PROJECT ROADMAP

- 2020 project starts
- 2022 Italian-English dissemination starts
- 2023 dissemination starts in 30 languages
- 100,000 students - addition of 5 languages (total 35 languages)
- 150,000 students - addition of 5 languages (total 40 languages)
- 250,000 students - addition of audio books
- 500,000 students - addition of video courses
- 600,000 students - addition of 5 languages (total 45 languages)
- 700,000 students - addition of 5 languages (total 50 languages)
- 800,000 students - addition of 5 languages (total 55 languages)
- 900,000 students - addition of 5 languages (total 60 languages)
- 1,000,000 students - Universities with three-year + two-year degrees
- 1,500,000 students - study support with A.I. (planned)

DIGITAL PHILOSOPHY

Philosophy, in ancient Greek '*philosophía*', means 'love of wisdom'. It was born as a current that studies general questions of life, as fundamental as the meaning of life, reason, or the existence of human beings. Philosophy was born out of a love of research and knowledge. It has always been known: **knowledge makes man free**.

In ancient Greece, it became a discipline regulating the way of life, with some ancient philosophers arguing that '*the use of knowledge should be for the benefit of man*'. Other ancient philosophers thought that philosophy should aim at the '*knowledge of being*'.

The passage of centuries has led to the development of different philosophies of life, depending on the geographical area, historical period and cultures passed down from generation to generation.

An eight-volume collection on **DIGITAL PHILOSOPHY** will soon be published.

Digitalisation is impacting all areas of our lives:

- Technological
- Social
- Cultural
- Habit
- Human relations

Digitisation is bringing epochal change; the kind of change we experience happens cyclically, every 250 years on average.

Let us try to examine the passage of these cycles from a historical perspective:

- At the beginning of the 500s the Roman Empire falls and the period known as the Middle Ages begins. The new form of the book is established, a new membranous medium, which corresponds to the inevitable demise of the papyrus scroll; birth of oncial writing.
- In 750, the Arabs perfected the astrolabe, using their great knowledge of algebra and trigonometry. A revolution in writing took place: oncial characters were replaced by carolinian characters, papermaking by the Arabs, and the first newspaper was printed in China.
- After 1000, the Dark Ages began. Islamic medicine and Islamic philosophy gave rise to 'The Canon of Medicine' and 'The Book of Healing', while the first medical university was founded in Baghdad.
- Around 1250, Gothic architecture is the predominant style, the building model influences the expansion of religion, philosophy and the development of universities; geo-political changes lead to the emergence of new empires and nations.
- Around 1500 with the advent of Humanism and the Renaissance, a new wave of discoveries and the development of mathematics and astronomy led to radical changes in the human mind.
- 1750: The political and social situation in Europe led to the French Revolution, inevitably followed by the industrial era starting with textiles and metallurgy, the birth of the first encyclopaedias and a general expansion in all scientific fields.
- In the 2000s the digitisation of the masses begins, in 2010 the first blockchains are born; in 2020 the Digital Literacy process begins, accompanied by the first Digital Encyclopaedia. 2021 **A.L.IM Digital is** born, the first association for the representation of **Digital Consultants** in Italy and the World.

To know the future, it is enough to study the past.

Everyone can recognise the difference from night to day, everyone remembers the seasons of summer and winter. But there are longer cycles, which the memory of a

single man cannot contain. Greater cycles that go beyond the natural understanding of the past, perhaps greater than humanity itself.

Those who study and research become aware of this, approaching true knowledge, represented by the knowledge handed down from century to century, which carries with it the history of the human species and its evolution.

Between 2020 and 2040 we will see an epochal change in energy, social, economic terms and digitisation will bring an evolutionary quantum leap.

The choice is between remaining observers of what will happen or riding the progress.

CONCLUSION

We thank you for taking the time to read this ebook. If you have made it this far, we are sure you can become a technological pioneer and stand out among the crowd once and for all.

In this ebook, being written by an Italian whose origins are Latin, terms are used that are taken for granted and commonly used in his or her culture of origin, but which might not appear understandable in other realities; the concepts are therefore treated in a simple and comprehensive manner, sometimes using technical terminology to convey the message as clearly as possible.

Digital culture is just a click away with Digital Encyclopaedia.

Now it's your turn to choose whether to write the story with us or ignore everything you've been handed in this insightful ebook...

Study history, know the evolution of the past, observe the law of cause and effect and you will know the future!

Happy Digitisation and Good Life!