# DISF Educational: an innovative website for high school teachers

# A didactical bottom-up perspective on Scientific Culture, Philosophy and Religion

#### **Abstract**

The DISF Educational website, located at disf.org/edu, is an e-learning platform addressed to high school teachers and students. It contains more than 1,000 original pages authored by more than 30 people. The platform —which includes didactical paths, answers to big questions, articles, book reviews, encyclopedia entries, glossary, practical exercises and videos— is aimed at providing a sound, documented and epistemologically reliable tool to support the teaching of school topics involving the relationships between science, history, philosophy and religion. The website, currently available in Italian, was designed keeping in mind that recent studies in sociology of religion point to the time between the ages of 14 and 16 as when a student forms his or her own conception of the world and of life. It is precisely at this age that the scientific worldview is perceived as being either in agreement with or in opposition to the teachings and narratives transmitted by the great philosophical and religious traditions.

DISF Educational focuses on the advancements in the natural sciences and technology that will doubtless exercise an ever-increasing influence over society, our world-view and our ways of life. As a matter of fact, topics involving the relationship between science and society, science and ethics, science and religion, are already part of Italian high school programs. Think, for instance, of the philosophical issues raised by the natural sciences, the so-called 17<sup>th</sup>-century scientific revolution, the philosophy of the Enlightenment, the ecological crisis, the public dimension of technology, and interreligious dialogue, but also the question of why there are wars and conflicts and of the aspiration for a lasting peace able to promote the progress of all peoples. Such themes deserve a sound historical and philosophical framing, often lacking or only poorly developed in school textbooks. On these bases, the rationale of the whole project, and the dialogue it promotes between religion, philosophy, history and the sciences, can be adequately understood as driven and motivated by an ideal of "expanded reason." This ideal appears the most suitable one for attaining an understanding of reality in its complex and multifaceted constitution.

The platform has been designed and realized by the DISF Research Center (Documentazione Interdisciplinare di Scienza e Fede), at the Pontifical University of the Holy Cross in Rome, directed by Giuseppe Tanzella-Nitti. The national coordination of the project and its overall editing have been managed by Stefano Oliva. Part of the budget necessary to implement the platform was covered by the Italian Bishops' Conference, which had an active role in disseminating it among the Italian high school teachers, especially those working at Christian-inspired educational Institutions. Starting from the 20-year experience of DISF Research Center (whose

general website, disf.org, scored about 510,000 viewed pages in 2022) the DISF Educational platform, online since October 22, 2021, is the new website dedicated to Italian high schools. Also, thanks to the material published in DISF Educational, the DISF Research Center has promoted in-presence and online courses, webinars and lectures attended by more than 800 Italian high school teachers in 2021-22.

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#### **Document**

In this document the new website DISF Educational (disf.org/edu), dedicated to promoting the dialogue between science, philosophy and Catholic religion in Italian high school education is presented, along with the challenges it proposes to address, and its theoretical and ethical foundation. The first section contains an analysis of the specific challenges that contemporary society poses to high school education, particularly with regard to the Christian roots of Western culture and of the relevance of an "expanded reason" approach to education. In the second section, the structure of the website is described, and the specific roles of its components clarified. The third and last section explains how the ideals of the unity of knowledge and of transdisciplinarity are fundamental to the platform design and the choice of contents.

It is also worth mentioning that the implementation of the DISF Educational website is the most recent outcome of the 20-year long endeavor of the DISF Research Center at the Pontifical University of the Holy Cross in Rome. Indeed, besides academic research, in 2003 the Center launched the DISF portal (disf.org) on the dialogue between science and faith, addressed to interested intellectuals and university professors. After that, the English website for the Interdisciplinary Encyclopedia on Religion and Science (inters.org) was created for the English-speaking audience with the same aim. Then, in 2005, the International School for Interdisciplinary Research (sisri.it) was created with the aim of involving young graduates in interdisciplinary research based on the ideal of the unity of knowledge and on the inspiration coming from the Judeo-Christian Revelation. Thus, the DISF Educational website is intended as a pursuit in line with the end goal of the DISF Research Center, this time addressing the strategic audience of high-schoolers.

#### I. School education facing the challenges of contemporary society

We live in a society undergoing rapid socio-cultural change. The transformations taking place have a faster speed than we were used to in recent decades.

Among the main factors generating these changes there are certainly three important phenomena:

- (a) increased interaction between different peoples and cultures, due not only to extensive migration flows but also to the phenomena of globalization;
- (b) the emergence and spread of new lifestyles and ways of thinking, resulting in part from the crisis of traditional cultural and ethical systems, which generate new ways of learning and cultural transmission;
- (c) the increasing influence of scientific thinking and technology on various areas of human life, from production processes to the management of key social services, from education to mass communication.

Much more than in the past, scientific thought today greatly influences our view of the world and of the human being. Science is eager to tackle supreme questions, those that point to the origin of the cosmos and of life, those which try to understand the place and role of humanity in the universe, the future scenarios that will host humanity, as well as the meaning and overall import of technical progress. These are changes that affect the very vision of the human being, on an epistemological, anthropological and ethical level, because today they influence our perceptions of what man can know and can hope for, what he should or should not do.

The school system and the ways in which culture is transmitted from one generation to the next are also subject to these transformations and are affected by what is happening in society at large. The contemporary scientific, cultural and social novelties, indeed, enter directly into the schools and the educational framework they provide. In schools today, one has to talk about the interactions between peoples and cultures, the relations between the world's religions, the relationship between technical-scientific progress and human advancement. One often has to address the issues of ecological responsibility and stewardship of the planet, teach reflection on energy sources and climate change, illustrate the anthropological and social dynamics connected with the "digital revolution" and the growing use of social media. Ethical questions related to the use of artificial intelligence, those raised by scientific research on nascent life, as well as the debate on the peaceful use of nuclear energy and technological applications in general, are now part of the dialogue between teachers and students.

Dealing with the great contemporary issues in the school context, however, can never be reduced to a didactic exposition of the ongoing changes and new problems. Careful and well-documented teaching also involves clarifying their historical roots, their connections with the great philosophical questions, and their implications for the vision of the human being. In short, school teaching is called to mediate wisely between the current great transformations and their cultural-historical framework, being at the same time aware of the past and open to the future. The profound understanding and attractive explanation of this framework implies knowing and being able to illustrate the relationships —on an epistemological, anthropological and ethical level— and the reciprocal interactions that, throughout history, have affected scientific culture, philosophical thought and religion. Science, philosophy and religion are in

fact the three sources that have offered, and still offer, each in its own way, a comprehensive and all-encompassing view of the cosmos, life and the human being.

University-level teaching, because of its in-depth specialization, may run the risk of a certain fragmentation of knowledge. This risk can sometimes be accepted in the University, even though because of this fragmentation trans-disciplinary overviews are often overlooked, undervalued or even discouraged for pragmatic reasons. Yet this is a risk that must be absolutely avoided in high school education. Younger students must be offered the opportunity to consider a renewed unity of knowledge, encouraged to appreciate the relationships between science and history, between art and philosophy, between anthropology and religion. Dealing with these relationships in an epistemologically equipped, rigorous and not approximate, documented and not hasty manner, contributes greatly to the formation of a critical sense in high school students, educates them to comprehend the depth of problems, to carry on the search for reasoned and not superficial solutions.

It is easy to see that such a program can only be realized if high school teachers are helped by appropriate tools that are articulate on a conceptual level and broad in terms of documentation. DISF Educational does exactly this. On the platform, for example, teachers are helped in discovering and appreciating the interdisciplinary connections between one subject and another. They are also supported by teaching approaches that highlight the humanistic dimensions of scientific research and results (in, e.g., mathematics, astronomy, or genetics), as well as the scientific inspiration in the humanities (e.g., in art and literature). Complex issues such as the transition from geocentrism to heliocentrism, the biological evolution of the human being and its philosophical implications, the search for life in the cosmos and its possible religious resonances, the presence of precise cosmological and anthropological visions in the achievements of art and technology, can be more easily framed if teachers are provided with historical-documentary material, as well as scientific material, which is sometimes not easy to find. In these efforts as well, DISF Educational is a helpful resource.

In partial contrast to the university curricula of the US and UK, those characterizing many continental European countries (especially Italy, France and Spain) do not generally allow for truly interdisciplinary profiles. As a consequence, teachers who have obtained academic degrees in these geographical areas are at a disadvantage, compared to their Anglo-Saxon colleagues, in addressing topics that put humanistic and scientific culture in dialogue, or that deal with historical-epistemological issues in which science, history, philosophy and religion interact. This makes the challenge undertaken by DISF Educational a strategic one: the goal is to able to mitigate these issues for future generations of teachers as well as the current one.

US teachers can already count on excellent teaching projects that have fostered dialogue between science, philosophy and religion in schools, such as the one promoted by "The Science and Religion Initiative of the McGrath Institute for Church

Life" at Notre Dame University, Indiana [1]. There are also important initiatives in the academic sphere with an impact on school culture, such as the DoSER (Dialogue on Science, Ethics and Religion) Project promoted by the American Association for the Advancement of Science [2]. In the UK environment, programs to support school teachers on issues concerning the relationship between science and religion are provided by the Faraday Institute for Science and Religion in Cambridge [3]. The approach of these programs favors a pragmatic method based on exercises and working in groups, with considerable use of audio-visual material. In contrast, the historical-philosophical, artistic and literary perspectives seem less developed. In contrast to their colleagues from other language areas, teachers in the Neo-Latin areas can count on fewer didactic tools to help deepen the interdisciplinary dimensions of schoolwork, with particular reference to the relationship between scientific thought and religion. There are, however, interesting attempts promoted by important European universities [4].

The relative lack of advanced tools in this language area therefore prompted a new initiative, promoted by the Centro di Documentazione Interdisciplinare di Scienza e Fede (DISF), established at the Pontifical University of the Holy Cross in Rome. This gave rise to the design (2019-2020) and implementation (2021-2022) of the DISF Educational website (disf.org/edu) in Italian, aimed at supporting high school teachers in dealing with educational topics involving the relationship between scientific thought, philosophy and the Catholic religion. The platform and the qualified teaching services it promotes do not overlap with other existing initiatives. While paying attention to scientific results, which it discusses with depth and competence, the DISF Educational Project in fact privileges the historical-philosophical tradition of the Humanities, the historical approach and the sources of classical thought. The role of Christianity is introduced at the cultural-historical level, showing the specific anthropology that this religious movement introduced into Western culture. In fact, Christianity is credited with the affirmation of the notions of freedom and equality of all human beings, the promotion of the reflection on human rights, the birth of hospitals, universities and banking institutions, the development of art and architecture, and the elaboration of great works of literature. The website offers tools so that teachers and students can meet the great authors and works, providing them with reviews, critical studies and numerous other documents in its bibliographical sections.

The methodology, which we will set out in more detail in the next section, employs a bottom-up perspective. Philosophical issues, epistemological, ethical and anthropological questions are raised from the bottom up, through the analysis of the sciences and the historical questions. The Didactic Paths and Big Questions on DISF Educational let interdisciplinarity and openness emerge almost as a necessity of intellectual work when addressing the questions of meaning implicated in specific issues. These are the questions that an open reason gives rise to, and that lead towards the search for a Foundation, both in the ontological-rational and anthropological-existential domains.

The website takes up and tackles the challenge posed by the language and sensitivity of the new generations by preparing multimedia material organized according to different levels of in-depth study. The attention of young people, captured by images, works of art and lives of witness, is gradually set on digital paths that, starting from synthetic information, progressively deepen towards more extensive and demanding readings and documents. The main aims of the didactics promoted by DISF Educational are: a) the formation of critical thinking and balanced judgment through access to original sources and historical contexts; b) the promotion of a renewed unity of knowledge afar from any reductionism; c) the search for truth never separated from goodness and beauty. Teachers are both recipients and protagonists of these didactics. They are the primary users and key actors. This is the essential way in which DISF Educational works towards the aim of "opening and expanding the reason" of both teachers and students.

### II. DISF Educational: the new online platform for Italian schools

The DISF Educational website was published online on 22 October 2021. Promoted and implemented by the DISF (Documentazione Interdisciplinare Scienza e Fede) Research Center established at the Pontifical University of the Holy Cross in Rome, the project was supported by the Italian Bishops' Conference [5].

In realizing this web platform, the DISF Center, which in over twenty years of activity has provided documentation and organized training activities for teachers and researchers on the relationship between science and faith, has intercepted and welcomed a particular demand from the Italian school world. The request for a website designed to bring young people closer to interdisciplinary work on issues involving scientific knowledge, humanistic culture and religion has been formulated over the years to the DISF Center by both Christian-inspired schools, such as those promoted by diocesan and religious institutions, and State schools without a specific denominational perspective.

The site, completely free of charge and without advertising, provides teachers and students with more than a thousand web pages, divided into four sections: *Didactic Paths*, *Big Questions*, *Interdisciplinary videos*, *Meaning Seekers*. Let us take an analytical look at each of these sections.

# Didactic Paths ("Percorsi tematici")

Aimed especially at secondary school teachers, some of the contents can also be used directly by students. The index page currently shows 29 *Didactic Paths*, divided into 5 areas (*The big questions about reality and existence*; *Perspectives from history*; *Contemporary challenges*; *Interdisciplinary openings in individual teaching subjects*; *Synthesis Paths*). Each pathway is structured with a general fact sheet and a side

column dedicated to different types of in-depth study. The main pages, by university professors or high school teachers, show the philosophical, humanistic and scientific resonances of the subject at hand, emphasizing the richness and fruitfulness of an interdisciplinary approach. In the side bar there are several boxes. The box entitled In a nutshell summarizes the main concepts of the page. The In-depth box suggestions include entries from the Interdisciplinary Dictionary of Science and Faith (in Italian, from disf.org, and in English, from inters.org) and Selected pages refers to the anthologies published on disf.org. There is also a rich bibliographical orientation consisting of wide-ranging studies dedicated to Influential Works (ancient, modern and contemporary), Thematic Bibliographies and individual Works Related to the Path (shorter entries on recent texts). The entire bibliographical section is an aid for teachers but, in some cases, can also be used directly by students as an introduction to particularly important scientific and philosophical works. In the box called Special Issues there are hyperlinks to pages from the disf.org website, dedicated to culturalhistorical anniversaries and topical issues. At the end of the in-depth bar, you will find Other Documents, of lesser importance, and sometimes Testimonials, i.e., stories of people who have embodied the theme that is being considered in their lives and in their research.

Each thematic pathway also offers *Work Tracks*, prepared by a panel of teachers, suggesting activities for students, to be carried out in class or at home. There are three kinds of activities: a) *Interdisciplinary workshop* (proposal for discussion with the involvement of teachers from different disciplines, within the same school), b) *Let's discuss together* (outline for a group discussion that a single teacher can carry out in class), and c) *Deepen and reflect* (hints for individual work by each student, to be carried out at home as well).

With the *Didactic Paths* section, DISF Educational intends to provide teachers with reliable tools to address topics included in the school programs according to the ideal of the unity of knowledge and trans-disciplinarity, thus promoting critical thinking and consulting original sources on the part of high-schoolers.

# Big Questions ("Grandi Domande")

The section addresses in a clear and straightforward manner a number of questions on topics comparing science and philosophy, or science and religion. Given the nature of the questions and the style of the answers, the contents of this section are primarily aimed at secondary school students. The section currently contains 26 Big Questions, each of which is structured with a brief first synthetic answer, and then sub-questions and answers articulating the first answer more deeply. This multiplicity of levels offers a twofold advantage: immediately providing an orientation on the topic, which is also easy to use in smartphone navigation, and at the same time offering the possibility of an in-depth study that clarifies the terms of the question through appropriate

clarifications and specifications, not hiding the complexity of the addressed issues, but gradually accompanying the user through successive levels of understanding.

At the end of the answers links to related Didactic Paths may be pointed out, whereas the sidebar offers "Learn More" documents, directly readable by students. A *Glossary* with technical terms and selected videos from the DISF Educational video library complements the sidebar.

The *Big Questions* are conceived of to capture high-schoolers' curiosity and to address topics adolescents are usually interested in. They are written in an accessible language so as to offer a clear orientation and the possibility to go deeper into the issue. This section seeks to attract adolescents even independently of schoolwork.

## Interdisciplinary Videos ("Video di attualità interdisciplinare")

The video library offers short audiovisual contents related to the topics of the other two sections (Didactic Paths and Big Questions). The 28 videos address, in an engaging but rigorous and authoritative way, currently debated topics between science, philosophy, ethics and religion. Each video is associated with an abstract and additional documents in the sidebar. The video library includes a number of videos in English, subtitled in Italian by the DISF Center. They are originally produced by prestigious international institutions, such as the American Association for the Advancement of Science (AAAS), the project Dialogue on Science Ethics and Religion (DoSER), the Faraday Institute of Cambridge (UK) and the John Templeton Foundation.

This section addresses key topics of the portal through the multimedia language so close to young people, with the aim of letting them engage in such deep issues passing through their favorite communication channels.

### Meaning Seekers ("Cercatori di senso")

This section is addressed directly to students and aims to respond to that "search for meaning" that, particularly during adolescence, prompts existential and anthropological questions. At the same time, it is a section of the platform where Catholic religion teachers, who work in all Italian schools, can find very useful cues to address issues in dialogue not only with their students, but also with colleagues from other disciplines. Cultures and religions have always intercepted the questions of meaning that appear in this column and, through their elaborations, have attempted to offer answers that have profoundly influenced the history of civilizations. The index page contains 12 "gates" to as many fundamental anthropological experiences, among which we mention by way of example: Awe, Fragility, Love, Freedom, Destiny, etc. Reflections that human beings have made on these great anthropological experiences

have produced works and documents throughout history that can be traced in literature, philosophy, science, art and culture. In turn, Christian theology too has taken up the demand for meaning arising from these fundamental experiences and has offered important contributions to human culture from the Gospel message. The section is therefore proposed as a place for an in-depth discussion between culture and theology, accessible to a young audience. This section opens up to a multidisciplinary dialogue that can involve the whole school, with particular reference to Catholic religion teachers, if present, and Humanities teachers. Each "gate" consists in an introductory text, addressed to the student, and a hive of hexagons in which there are 9 types of in-depth documents: A Page of Literature, Let a Film Tell You (commentary on the plot, trailer, or selection of scenes), Let's Look at a Work of Art, Pages of Philosophy and Theology, I'll Tell You a Story (which present the biography of a contemporary "witness" in relation to the gate's theme), Women and Men of the Bible, Let's Open Holy Scripture (biblical passages accompanied by theological commentaries), From the Catechism of the Catholic Church, and finally documents taken from the Magisterium of the Catholic Church. Each of the 9 types leads to an indepth page whose contents are appropriately presented and commented on.

Not directly addressed to the school world, this section provides hints for reflection on existential experiences for people with intellectual curiosity and human sensitivity, teachers, parents, and educators alike. Such hints may sustain conversations within families, which are another key context of our society.

Two web pages of information on our project and the activities promoted by our research center complete the DISF Educational platform.

The first one, titled *Our Project*, presents a brief synopsis of the project through specific documents: *Guide to the use of the headings*, *A vision of knowledge* (on the epistemological assumptions and cultural lines underpinning the initiative), *The disf.org and inters.org websites* (a brief presentation of the two sites from which some of the proposed documents come) and a short illustrative video. Some brief biographical notes introduce first the staff of the DISF Center and then the panel of over 30 university professors and school teachers, who are the authors of the published contents.

The second page, *On the noticeboard*, enables dialogue between users and the platform's promoters: by providing contacts and contact details, it encourages the sending of documents and the reporting of initiatives by teachers who wish to share significant experiences with their colleagues. In addition to the reporting of particular events (conferences and round tables), a number of documents are proposed that qualify the cultural vision behind the initiative and explain its aims.

In the last months of 2022, the DISF Educational platform scored around 40,000 page views per month. At the top of the hits are the most current interdisciplinary topics encountered by the world of education, such as the Galileo Galilei affair and the historical documents illustrating it. The most frequently visited section is that of the

Big Questions. The project has been widely commented on in the press [6], especially at the time of its public launch, receiving great appreciation from various institutions, both civil and religious [7].

## Teacher training from the DISF Educational Platform

Immediately after the launch of DISF Educational, the DISF Center staff started an intensive training program for secondary school teachers based on the contents of the platform itself. Dozens of conferences, including in-person events and online webinars, were held with entire schools, with associations and with individual teachers. In order to make the use of this tool more effective, from 2021 the DISF Center began to enter into partnerships and agreements with various entities, including in particular the FIDAE (Federation of Institutes of Educational Activities) and the Higher Institute of Religious Sciences at the Apollinare, active at the Pontifical University of the Holy Cross. The latter Institute asked the staff of the DISF Center to take charge of university courses on the relationship between science and faith to be offered to its students, many of whom are preparing to enter teaching roles in the School.

These training activities had further positive effects on the adoption of the DISF Educational platform by schools and individual teachers. Indeed, the increasing adoption by secondary school teachers has triggered a virtuous circle, causing teachers to suggest new modules and content. New practical-operational aids for classroom work are being developed, with the aim of giving rise to a new rubric, conceived as "Structured Lesson Cycles," organized according to specific conceptual flows. In this new rubric, models of lessons or short lesson cycles will be made available to users, in which content, objectives, methodologies, resources and timetables will be made explicit. The identification of lesson topics and their implementation will be carried out in close cooperation with a panel of school teachers, who will be appropriately trained and involved in the project.

Starting in 2023, DISF Educational will host new *Didactic Paths*, which will address, among other things, neuroscience, the production and use of energy resources, social inclusion and migration, contemporary forms of religiosity and spirituality, and the relationship between civil society and nation states. The *Big Questions* will be updated with new questions such as: Why War? What is the Metaverse? What is integral ecology? What is the digital transition? What about personal identity on social networks? The section *Meaning Seekers* will be enriched by other gates dedicated to fundamental anthropological experiences such as Generativity, Beauty, Desire.

The openness to new contributions, the dynamism typical of the online platform and the constant focus on the issues debated in a constantly evolving society means that DISF Educational presents itself as a versatile, constantly updated tool available to the entire Italian school system.

# III. Unity of knowledge and online learning tools: epistemological, anthropological, ethical and existential aspects

One of the main purposes of the DISF Educational platform is to provide support and documentation to those who wish to address important topics that, due to their very nature, cannot be framed within a single discipline, but require the contribution of several perspectives. In this way, school-age young people are introduced to interdisciplinary work, which is one of the main strengths of scientific research today. Indeed, there are numerous topics in school curricula that simultaneously involve several disciplines and require an adequate historical and epistemological framework. As mentioned above, we are thinking of the philosophical questions that arise in certain areas of the natural sciences; the study of the origin of the cosmos and life; movements of thought such as the Enlightenment or positivism; the debates stirred up by authors such as Galileo Galilei or Charles Darwin; current issues such as ecology, artificial intelligence, technological progress, the frontiers of medicine and bioethics.

Underlying the DISF Educational project is the conviction that school teaching and intellectual education should, by their very nature, educate for depth, broaden horizons, and develop inter-connections and critical judgement. The contents on the platform we present here therefore aim to foster the ideal of the unity of knowledge. By this expression, we do not mean encyclopedic knowledge, but knowledge cultivated by an educated person who knows how to place his or her specialized skills in the context of other knowledge. Understood in this way, the unity of knowledge is not opposed to specialization, but to reductionism. Many of the Didactic Paths on DISF Educational have their source of inspiration in authors such as Augustine of Hippo, Hildegard of Bingen, Thomas Aquinas, Blaise Pascal, Robert Boyle, John Henry Newman, Antonio Stoppani, Francesco Faà di Bruno, Jacques Maritain, Edith Stein, Karol Wojtyła, and Joseph Ratzinger. To these authors must be added the rich magisterium of the pontificates of John Paul II and Benedict XVI. We should also recall the strong exhortation to trans-disciplinarity and unity of knowledge that Pope Francis addressed to all Ecclesiastical Universities (and not only to these) in the foreword of the constitution Veritatis gaudium, published on 29 February 2018. Among the contemporary authors who have inspired the ideal of interdisciplinarity in the pages of DISF Educational are many scientists who have developed important philosophical, humanistic, existential and sometimes even religious reflections. These include James Clerk Maxwell, Max Planck, Paul Dirac, Werner Heisenberg, Louis de Broglie, Albert Einstein, Federigo Enriques, Paul Davies, John Polkinghorne and John Barrow. Mention should also be made of thinkers particularly sensitive to the unity of knowledge, such as Michael Polanyi, Thomas Torrance, Romano Guardini, Basarab Nicolescu, and Edgar Morin.

The cultural operation that the project pursues is to help overcome the divorce between humanistic culture and scientific knowledge. One of the consequences of this divorce is the marginalization of theological and religious thought and the trivialization of its content. Very often, humanistic culture is considered merely a form of opinion, at most an exercise in critical thinking, but nevertheless incapable of arriving at a truth. Knowledge of reality is preferably associated with scientific knowledge, which limits and crisis are underestimated, due to the lack of importance given to philosophical-humanistic knowledge. In fact, the crisis of the foundations of logic and mathematics, the crisis of ontological incompleteness experienced by physical cosmology or the epistemological crisis encountered by contemporary biology, can be interpreted as openings of scientific knowledge towards philosophical knowledge and sometimes even towards the existential dimension. Only a more intense dialogue between philosophy, science and anthropology, a dialogue that can also be prepared in the classroom, can heal these crises in the understanding of reality. Theology also makes a positive contribution to this healing, pointing out that the ultimate cause of the being of all things and the ultimate meaning of human life lie beyond philosophical knowledge.

Christianity plays an important role in promoting the unity of knowledge we are talking about. Through its capacity for inculturation, Christianity has historically fostered dialogue between peoples and personal intellectual syntheses. By welcoming and valuing classical culture, as well as the wisdom of many peoples and their traditions, Christianity has permeated the intellectual development of the West. It helped to promote care for the human being, with hospitals and credit institutions. As recent historiography has shown, Christian theology also played an important role in the birth of the scientific mentality, fostering the recognition of the laws of nature and the intelligibility of the created world as an effect of its Creator's design. In the intellectual climate forged by Christianity, the promotion of the unity of knowledge was then consecrated by the foundation of universities, where different disciplines entered into dialogue with each other, united by the desire to seek the truth about man and the world and, through theology, the truth about God. In this "broadened vision" of rationality and intellectual formation, rooted in an anthropology of Christian inspiration, there is room for the great questions about existence, with their undeniable philosophical as well as deeply religious nature. In keeping with its Christian inspiration, the DISF Educational website aims, with humility, at incarnating this tradition within the contemporary world and society.

Most of the content offered by DISF Educational shares a vision of science as a fully human activity, driven by wonder and deep existential motivations, and always oriented towards the search for truth. While employing a specific and circumscribed method, the sciences operate on the same reality that is the subject of philosophy, anthropology and history. Science is never seen in a neutral or impersonal way, but as an activity charged with meaning and open to philosophical questions. A positive view of technology is offered, as the way in which the human being, through intelligent work, participates in the task received from the Creator to lead creation towards its fulfilment. Technology manifests the human person as the subject of progress and

history, giving voice to the transcendence of culture over nature. Ethical aspects are grasped by researchers as intrinsic to scientific work and framed as the exercise of their personal and collective responsibility. In essence, in the light of a creation principle, the ethical dimension is presented in light of experiential knowledge, rather than as an extrinsic control on behavior. The dimensions of fallibility, provisionality and indeterminacy, which are typical of the activity of the sciences and their representation of nature, are not seen as obstacles to the idea that scientific activity is an authentic search for truth. Ultimately, a vision of scientific activity is offered that is capable of striving for truth and goodness because it is attracted by beauty.

In this vision of knowledge, the natural sciences enter into dialogue with the humanities, science rests on a philosophy of nature and opens up to a metaphysical understanding, while philosophy, in turn, opens up to questions of meaning in natural connection with the answers provided by wisdom, particularly those offered by Christian theology.

One of the challenges that the DISF Educational project had to face was how to communicate this in an attractive way, especially considering the young age of high school students. Looking at the society we live in, we easily notice that the way we communicate has radically changed over the last few years. Digital language, images, short videos, and documents shared on social networks are now the normal way in which we are informed and inform. They are also the way many of us learn and even study. After the computer, tablets and smartphones now also coexist with books and, in some cases, have replaced them. We have the opportunity to reach many more people, to include those who would have fewer opportunities, to forge new relationships. There is no doubt that, properly employed, the new technologies can make a decisive contribution to making the human race one family, according to criteria of gratuitousness and inclusiveness.

However, digital culture raises certain questions, and a certain backlash is apparent. It is still a matter of debate to what extent, in the field of education and training, it is appropriate to rely totally on this type of communication. Is it possible to "educate to depth" using a *touch screen*, to train the "critical spirit" through *clicks*? Intellectual work requires recollection, reflection, time and sedimentation of ideas, it benefits from (non-virtual) human contacts, from the transmission and sharing of experience, all things that, at first sight, do not seem achievable in a *digital* environment, through simple "clicks on a screen." It becomes easy, then, to fall into a dialectical opposition, exalting the poles of contrast, often proposed as a radical confrontation between progressives and conservatives. When we talk about distance or face-to-face teaching in school education, the dilemma takes on decisive tones and positions become rigid. One is often faced with an almost forced choice: to feed the tension between digital innovations and traditional means, with the risk of getting stuck, or on the other hand to look for strategies and solutions for moving forward?

The second option, certainly more difficult, is the one DISF Educational has tried to pursue. The new technological means at our disposal have increased the speed of

our exchanges, especially the speed of communication. This affects the retrieval and assimilation of information, favoring a rapid but not always accurate and thoughtful acquisition. However, this state of affairs should not lead to rejecting or downgrading the use of the digital medium, as if it were not a suitable tool for cultural education. On the contrary, we need to take up the challenge that the digital world poses to culture and find new ways, through the most sophisticated and innovative technological tools at our disposal, to offer the wealth of content and reflection delivered to us by the tradition of human thought.

The experience in preparing the DISF Educational platform was characterized precisely by the attempt to seek strategies and solutions to the afore-mentioned questions. The project took up the challenge of providing easy to use and appealing online didactic tools, without diminishing the depth of the conveyed contents, nor the methodological and documentary rigor. Our purpose was to understand how to attract high school students to the great philosophical questions, to the great interdisciplinary themes, and to the historical-philosophical issues that transversally intersect school curricula but require in-depth study that goes far beyond a single-discipline textbook. Can a teenager be interested, for example, in the role played by Christianity in the development of Western thought, or in the personalist dimensions of scientific research, or in the relationship between science, philosophy and theology when tackling the great questions on "origins"?

Firstly, the web platform tries to "capture" the attention of young people with familiar and attractive graphics that speak the aesthetic language of images. Secondly, it tries to "intercept" the right questions, those that young people really ask themselves, not those that educators think they are asking. Here come the first surprise, because young people are much more attracted by the big questions than is often thought. A good deal of courage is then needed, because clear answers must be offered to the students, ones which rest on a foundation, without leaving them up in the air. Most of the more than thirty lecturers who collaborated in the preparation of DISF Educational converged on the fact that one can offer clear answers without being ideological, one can talk about truth and error without hurting anyone.

The strategy we have followed ensures that the big questions have the capacity to gradually open up to deeper and deeper levels, to cover progressively more specialized levels. If the graphics and media language have the task of intercepting interest, the progressive and gradual levels of depth have instead the purpose of leading by the hand towards non-trivial answers, which are able to specify key issues, open horizons, and hint at the complexity, but also the beauty of the topics.

Finally, we know how successful and compelling *storytelling* is today – learning from history and stories, letting witnesses speak. Now, new digital media enable us to do this much better than in the past. They give us access to large databases, they bring us into contact with sources, they allow us to let authors speak directly, allowing us, at least in principle, to avoid ideological mediations. Many of the columns on our web

platform contain an important reference to real stories, to the example of people from whom we can learn a lot.

During the preparatory work for DISF Educational, however, we were clear about one point, which was of the utmost importance. The language and content of the new media were to be proposed *without replacing* the relationship between teacher and student, but rather in order to foster the relationship between them. The media, from the book to the computer, are precisely "media", which must act as an aid, a service, a tool. Didactics, like any pedagogical relationship, is a relationship between people; people who are, however, called upon to equip themselves with the right tools. Young people, like everyone else, aspire to a taste for knowledge, a knowledge that is increasingly necessary today if we really want to make decisions in full awareness and free will.

- [1] The project is directed by Christopher Baglow, Professor in the Department of Theology at Notre Dame.
- [2] The Dialogue on Science, Ethics and Religion (DoSER) programme is sponsored by the American Association for the Advancement of Science (AAAS) and was founded in 1995 to facilitate communication between the scientific and religious communities. The goals of the DoSER project are to contribute to scientific understanding in religious communities and to promote interdisciplinary education and knowledge of the ethical and religious implications of advances in science and technology.
- [3] Founded in 2006, the Faraday Institute is based in Cambridge, UK, and is a member of the Cambridge Theological Federation. The Faraday Institute has several websites: "Faraday Kids" (for ages 2-11), "Faraday Teens" (for ages 11-18) and "Faraday Educators", to help young people explore science-religion issues.
- [4] Notable examples include 'El diálogo Fe-Ciencia en Educación', a seminar organized since 2020 by Francisco de Vitoria University in Madrid together with Notre Dame University, and addressed in particular to school teachers, both of the Sciences and of the Catholic Religion.
- [5] Cf., for instance, the official announcements issued by the Italian Bishops' Conference: "Una piattaforma didattica per insegnanti e studenti", on Comunicazioni sociali Chiesa cattolica (CEI), October 21, 2021: <a href="https://comunicazionisociali.chiesacattolica.it/una-piattaforma-educational-per-docenti-e-studenti/">https://comunicazionisociali.chiesacattolica.it/una-piattaforma-educational-per-docenti-e-studenti/</a>; and "Una piattaforma per allargare i confini del sapere", Ufficio Nazionale per l'educazione, la scuola e l'università della Conferenza Episcopale Italiana, October 9, 2021: <a href="https://educazione.chiesacattolica.it/una-piattaforma-per-allargare-i-confini-del-sapere/">https://educazione.chiesacattolica.it/una-piattaforma-per-allargare-i-confini-del-sapere/</a>.

- [6] Among the many articles that Italian Press has dedicated to the project, we have: "Paola Severini Melograni interviews don Giuseppe Tanzella-Nitti on the DISF Educational project", Rai GR Parlamento, October 18, 2021; "Faith and reason, so dialogue begins at school", *Avvenire*, October 22, 2021; "The unity of knowledge in today's school: the challenge of DISF Educational", *Osservatore Romano*, October 22, 2021.
- [7] On February 16, 2022 at the Pontifical University of the Holy Cross (Rome), a round table was held to present the project, 'School, Society and New Generations. The Cultural Contribution of the DISF Educational Project.' Among the speakers were Msgr. Stefano Russo, general secretary of the Italian Bishops' Conference, and Senator Barbara Floridia, Undersecretary of the Ministry of Education; cf. "Disf Educational, l'Agorà delle grandi domande", Ufficio Nazionale per l'educazione, la scuola e l'università della Conferenza Episcopale Italiana, February 18, 2022: https://educazione.chiesacattolica.it/disf-educational-lagora-delle-grandi-domande/.