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KA227 - PARTNERSHIPS FOR CREATIVITY

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SOLUTIONS' HERITAGE ALGORITHM

1ST INTELLECTUAL OUTPUT

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The aim of this report is to present how the results of the first intellectual output can help the partners' teams to create a draft of a new algorithm, that combines the fixed variables of intangible cultural heritage with the changing indicators linked to traditions, anecdotes and the best Solutions.

In the first intellectual output the researchers of the partner realities representatives of Italy, Poland and Turkey have carried out a passionate survey on the past of their countries having as focus the aspects of transformation of the social landscape regarding the recognition, the enhancement and protection of cultural heritage in the broad sense.

The three States, for more or less long periods, have experienced the alternation of sometimes golden phases, sometimes infamous; Italy has copiously tested power and culture during the Roman period and again with the Enlightenment and the Renaissance accumulating treasures of inestimable historical, architectural, cultural and artistic value.

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Poland, whose people have shown in the past that they are always able to rise with honour and determination, has maintained a remarkable identity formed by circumstances of national pride and cultural growth mostly scientific-literary and musical for example in the modern age and the Middle Ages, but also by tragic events that have harshly marked the architectural and social aspect such as after the disastrous fall of the revolt of January 1863 or during the Second World War.

Turkey, immensely lush with tangible attractions and indigenous traditions, lived its most flourishing period during the immense Ottoman Empire lasted over six centuries in the last millennium and its greatest collapse with the important territorial reorganization at the end of the First World War.

What is important to observe, beyond the individual events, is that every piece of a people's life

contributes to forming its cultural heritage and that, although some realities may seem distant to us, this is less true than it seems.

The pandemic of the last two years has brought these countries considerably closer together, united by the strong impact that restrictions on health protection have had on personal freedoms and heritage. Businesses in the cultural sector have faltered and people have returned to appreciate local public resources and new ways of living heritage, for example at a distance, through home screens, or rediscovering the experience of dialogue by sharing with the family, colleagues, friends and neighbors unfortunately lost traditions related to the memory.

As pointed out in a recent conference on cultural heritage, the current approach to this theme focuses on modern creative uses and interpretations, as well as the democratic and social contribution of cultural heritage to our shared responsibilities on the legacy of previous generations; our efforts to pass on this heritage to future generations and our contribution to the future, also through technologies that connect the past and the future.

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Here then is the foundation of the second analysis governed by the partners and based, this time, no longer on historical facts happened objectively, but on the perception that young and old, compared, have of events, heritage and values. By submitting open or semi-structured question questionnaires to sample groups of young and elderly, the five cooperating partner entities were able to understand the intergenerational relationship of intangible cultural heritage, underline the importance of cultural interpretation and sharing of experiences, giving weight to the memory of a less active citizenship, ambassador of priceless cultural values.

Finding the parities and differences between the generations of the various States and then comparing them is a process of fundamental importance for the understanding of the current

knowledge of the cultural heritage and its development, inevitably connected with the emotional bond attributed to it and the desire to protect. it.

The result of this journey is a greater perception of the social support, of the sense of authenticity and uniqueness of one's own history and of the spaces that surround us, as well as of the community spirit.

But what is the algorithm?

An algorithm is a strategy that serves to solve a problem and consists of a finite sequence of operations (also called instructions), allows you to solve all the questions of the same class. It must be general, that is, when the solution is the same for all problems of the same class¹. In computer science, an algorithm is the specification of a finite sequence of operations (also called instructions) that allows to solve all the questions of the same class or to calculate the result of a mathematical expression.

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An algorithm is the specification of a finite sequence of operations that allows you to solve all the questions of the same class or to calculate the result of a mathematical expression. An algorithm must be finite: it consists of a finite number of instructions and must always end. This means that the algorithm must be accurate and unambiguous, so that it can be run by a computer or a person without errors.

What types of algorithms exist?

There are many types of algorithms, but the basic types of algorithms are:

Recursive algorithm

Divide and conquer the algorithm

Dynamic programming algorithm

Greedy algorithm

Brute force algorithm

Backtracking algorithm

To write an algorithm you need:

Understand the problem (e.g.: making a pie) identify the input data, or the necessary resources (e.g., ingredients).

Define the sequence of steps needed to solve the problem.

Write the sequence of steps in pseudocode or a combination of spoken language and one or more programming languages.

Materials and methods

For the constructed evaluation system, the importance of each index at the same level with respect to an index in the previous level is compared, and the pairwise discrimination matrix is constructed as follows. The judgment matrix is an important basis for the comparison of relative importance (Saaty, 1990). It describes the importance of indicators respectively and quantifies them with numbers

$$R = \begin{pmatrix} r_{11} & r_{12} & \dots & r_{1n} \\ r_{21} & r_{22} & \dots & r_{2n} \\ \dots & \dots & \dots & \dots \\ r_{n1} & r_{n2} & \dots & r_{nn} \end{pmatrix}$$

Heritage sorting_ determines the weight value of the importance order of each element associated with this hierarchy. The eigenvalue and eigenvector of the judgment matrix are calculated by determining the square root method. The judgment matrix R corresponds to the maximum eigenvalue λ . After normalization, it is the ranking weight of the relative importance of an index at the same level. Following points the structure of algorithm:



