COMPETITION CODE: **22A048**

PUBLIC COMPETITION FOR THE AWARD OF NO. 1 RESEARCH GRANT(S) FOR COOPERATION IN RESEARCH ACTIVITIES IN THE FIELD OF COMPUTER SCIENCE (SSD ING-INF/05) ON THE TOPIC "MACHINE LEARNING AND COMPUTER VISION ALGORITHMS FOR CONTENT RECOMMEDATIONS, PREDICTIONS OF POPULARITY, AND MEASUREMENT OF THREATS IN A VIRTUAL COMPANION FOR SOCIAL MEDIA", WITH A DURATION OF NO. 18 MONTHS.

THE RECTOR

HAVING REGARD TO	Law no. 168 of May 9, 1989;
HAVING REGARD TO	Rector's Decree prot. no. 0010332/15 of March 03, 2015, and further modifications, concerning the Statute of the University of Milano-Bicocca;
HAVING REGARD TO	Law no. 240 and further modifications, art. 22 of December 30, 2010, which provides for the assignment of research grants for cooperation in research activities, within the available budget;
HAVING REGARD TO	Rector's Decree no. 4694/2020 prot. 0048412/20 of July 31, 2020, concerning the regulation of Research Grant for cooperation in research activities;
HAVING REGARD TO	Ministerial Decree no. 102 of March 9, 2011, fixing the amount of the grant and the comparative assessment methods;
HAVING REGARD TO	University's Official Notice Board regulations, as per the Rector's Decree no.14405 of June 1, 2006, which guarantees the legal publication of any University documents;
HAVING REGARD TO	the decision of the Board of Directors of April 24, 2007, authorising the Rector to issue calls for applications and measures aimed at awarding and renewing research grants from funds deriving from ongoing research projects;
HAVING ACQUIRED	the Department/School Board resolution taken in the **10/02/2022** meeting at the **Psychology** concerning the allocation of **no. 1 Research Grant**, under the supervision of the Scientific Project Head, **Prof. Dimitri Ognibene**, on the research topic **"Machine learning and computer vision algorithms for content recommedations, predictions of popularity, and measurement of threats in a virtual companion for social media"**, with a duration of no. **18 months** and an all-comprehensive amount of **€ 57.600,00**, to encumber on the budget of the **Psychology**, within the funds allocated by the **Progetto ID 2020-INTERNAZ-0118 - CUP H45I20000070007, conto CG.C.01.01.02.01 - COFOG MP.M1.P1.01.4, Resp. Prof. Ognibene**;
WHEREAS	the Head of Human Resources confirms the regularity and legality of the provision herewith;

DECREES WHAT FOLLOWS:

For the reasons indicated in the preamble to this provision and which are deemed to be fully reported herein:

Art. 1. - The following selection procedure, based on titles and examinations, is called for the award of **no. 1 Research Grant for cooperation in research activities, with a duration of 18 months, in the field of Computer science (SDS ING-INF/05), for the following activities: This postdoctoral position is part of the research project "COURAGE: A Social Media Companion Safeguarding and Educating Students". This project is an international collaboration funded by VolkswagenStiftung (Volkswagen Foundation) as part of the "Artificial Intelligence and the Society of the Future"funding initiative.**
The project aims to develop a Virtual Social Media Companion that educates and supports teenage school students facing the threats of social media such as discrimination and biases as well as hate speech, bullying, fake-news and other toxic content.
The main duties of the role are: to produce high-quality research papers, to implement and advance state-of-the-art machine learning algorithms to provide recommedations, predictions of popularity and measurement of threats of social media content, to provide APIs to integrate such algorithms and models in the Companion architecture.

Art. 2. - ADMISSION REQUIREMENTS. The selection is open to candidates holding a scientific and professional curriculum suitable for the requested research activities as provided in the present call, holding a **Second Cycle University Degree or equivalent** (Laurea Specialistica/Magistrale, Laura Magistrale a ciclo unico / Laurea vecchio ordinamento, prior to Ministerial Decree no. 509/99).
Applicants must meet the following requirements:
- Master Degree in **Computer Science, Mathematics, Physics or related,** or a legally equivalent qualification;
- knowledge of the English language.

The above requirements must be possessed within the application deadline. Applicants will be admitted to the selection process subject to conditions.

Preference will be given to applicants holding a PhD or an equivalent foreign certification and - for specific sectors - a specialization degree in the field of medicine supported by adequate scientific documentation.

The Selection Board will award the following points:
a) **DEGREES and QUALIFICATIONS (**up to **65** points**):**
  - up to **20** points for Degree grade and thesis, PhD thesis, judgment and relevance of the PhD project or medical specialization to the research topic; PhD in Computer Science, Mathematics, Physics or related
  - up to **5** points for post-degree masters or equivalent courses;
  - up to **30** points for publications (duly uploaded): **In the context of the web and social media studies, methods of natural language processing , machine learning, computer vision and reinforcement learning, such as convolutional neural networks, graphs neural networks or sequences (LSTM or Transformers). In particular applications to dialogue systems, intelligent teaching systems, systems for the recognition of emotions in text and images, recommendation algorithms, virality prediction, modeling of opinion dynamics on social media.**
  - up to **10** points for other duly documented titles, qualifications, contracts, scholarships, assignments: **Master in Computer Science, Mathematics, Physics and related disciplines. In the context of the web and social media studies, methods of natural language processing , machine learning, computer vision and reinforcement learning, such as convolutional neural networks, graphs neural networks or sequences (LSTM or Transformers). In particular applications to dialogue systems, intelligent teaching systems, systems for the recognition of emotions in text and images, recommendation algorithms, virality prediction, modeling of opinion dynamics on social media.**
b) **INTERVIEW:** Up to **35** points.

Staff employed in Universities and in other bodies indicated in article 22 of Law no. 240 of December 30, 2010, as well as recipients of other research grants and other scholarships awarded for any reason are not eligible, unless they are renounced, if awarded. This allowance is not compatible with participation, in Italy or abroad, in university degree courses (Laurea Magistrale or Laurea Specialistica), medical specialisation schools or university master's degrees.

Recipients of research grants may attend PhD courses in academic disciplines related to the research activities associated with the grant, pursuant to the University Regulations for the establishment and operation of PhD courses and PhD schools. The research grant contract is in any case incompatible with a PhD grant.

Throughout the duration of the grant, temporary or continuous employment is prohibited.

The following applicants are not eligible for selection:

- Applicants who have a relationship or a kinship, up to and including the IV degree, with a professor of the recruiting Department, the Rector, the Director General, or a member of the Board of Directors,
- Applicants who are excluded from the enjoyment of civil and political rights, who have been dismissed or disqualified from employment with a Public Administration for persistent inadequate performance, who have been declared debarred from another state job, pursuant to Article 127 letter d) of the Decree of the President of the Republic No. 3 of January 10, 1957, or who have been dismissed for having obtained employment by producing false documents or by fraudulent means,
- Recipients of convictions that have become final, including convictions following plea bargaining, or irrevocable criminal sentences for offences against the Public Administration.

In case of applicants with outstanding criminal proceedings for crimes against the Public Administration, the University will evaluate their admission to the selection procedure.

With reference to art. 22, paragraph 3 of Law no. 240 of December 30, 2010 mentioned above, and to the provisions of art. 1 of this call, the grant has an effective duration of no. **18** months, possibly renewable, and cannot be cumulated with scholarships of any kind, except for those granted by national or foreign institutions useful to integrate, with stays abroad, the research activity of the recipients. The total duration of the relationships established in accordance with art. 22 of Law no. 240 of December 30, 2010, including any renewals, cannot in any case exceed 6 (six) years, excluding the period in which the grant was used in conjunction with the PhD, within the maximum legal duration of the relative course.

Applicants who, having already been awarded research grants based on the regulations in force, cannot guarantee full coverage of the period of research envisaged will therefore be excluded from this selection procedure.

The total duration of the relationships established with the recipients of the grants referred to in the present article and of the contracts referred to in art. 24 of Law no. 240 of December 30, 2010, also with other state, non-state, or online Universities, as well as with the bodies listed in paragraph 1 of art. 22 of Law dated December 30, 2010, with the same subject, cannot in any case exceed twelve (12) years, even if not continuous. In compliance with the law in force, any period of maternity or health leave are not relevant to calculate the duration of the above-mentioned relationships.

Art. 3. – The submission of the application, together with the qualifications, documents and publications considered useful for the procedure, **must be made exclusively online, under penalty of exclusion, by accessing the following link:** https://pica.cineca.it/unimib/22a048/ .

The applicant may register and access the platform by using the *Sistema Pubblico di Identità Digitale* (SPID – Public System of Digital Identity - security level 2), selecting Università degli Studi di Milano-Bicocca. If the applicant does not have one, he/she may apply according to the procedures indicated on the website www.spid.gov.it.

Alternatively, applicants may register and log in using the credentials issued directly by the platform or authenticate themselves with their LOGINMIUR, REPRISE or REFEREES account, if available.

The online platform will necessarily require an e-mail address in order to be able to register with the system.

The applicant shall enter all the data required to produce the application and attach the documents in PDF format.

Each applicant can produce a maximum of 30 (thirty) publications and a maximum of 30 (thirty) other titles and

qualifications.

All fields in the online application form must be filled out. Under penalty of exclusion, the applicants shall enclose what follows:

1) a curriculum vitae with a complete list of scientific and professional activities;

2) a valid ID to be uploaded in electronic format;

3) a declaration of having/not having any criminal proceedings received or any current criminal proceeding; otherwise, they shall specify the crime and, whether the sentence has become final, or if the criminal proceedings are in progress and if there have been any additional penalties imposed, specify which ones.

Failure to comply with the online application procedure will result in the exclusion of the applicant.

Prior to final submission, and within the given deadline for applications submission, it is possible to modify and save the inserted information in a draft copy.

Confirmation of final submission date will be certified by an automatic notification email.

Submissions after the given deadlines will not be accepted by the system, as the online application procedure will not be accessible.

Each application will be given a registration number. For all further communications, the registration number shall be quoted along with the code of the research grant selection.

The online application and submission procedure shall be completed **by 01/04/2022, not later than 12.00 (Rome time)**.

In case of access by SPID, the application may be submitted without any need for a signature and will be automatically acquired by the system. In case of access with other credentials accepted by the system, the submission of the application must be completed and concluded as follows:

- **by digital signature**, using smart cards, USB tokens or remote signatures, which allow the holder to sign generic documents by using a PC-based signature software or a web portal for Remote Signature made available by the Certifying Authority. In case of a smart card or a USB token for Digital Signature, it is possible to check its compatibility with the Digital Signature system integrated in the server system. In case of positive result, the holder can sign the application directly on the server (e.g. Con Firma – With signature);

- **those who do not have compatible digital signature devices and Remote Digital Signature Holders** who have access to a portal for signing generic documents, shall save the PDF file generated by the system on their PC and, without modifying it in any way, digitally sign it in CAdES format: a file with .p7m extension will be generated and shall be uploaded again on the system. Any modification made to the file, before the Digital Signature is affixed, will prevent the automatic verification of correspondence between the content of the aforesaid document and the original, and this will result in the exclusion from the selection;

- **if it is not possible to use one of the above options**, the applicant must save the PDF file generated by the system on his/her PC and, without modifying it in any way, print it out and affix a complete handwritten signature on the last page of the printout. This complete document must be produced in PDF format by scanning, and the file thus obtained must be uploaded to the system.

In application of the rules on self-certification, the University will verify the truthfulness of the declarations in lieu and self-certifications, in accordance with T.U. 445/2000.

Art. 4. To be awarded the research grant referred to in Article 1, and in accordance with the provisions of Article 5 below, applicants will be required to undergo an interview aimed at ascertaining the candidate's aptitude for research activities, and knowledge of the English language.

The interview will be held online and will take place on 06/04/2022 at 09:30 (Rome Time). When submitting their application, candidates shall enter their e-mail/telematic contact (Skype, Cisco Webex Meetings, Google Hangouts or Google Meet) for the configuration of the online interview.

Art. 5. - Applicants' degrees, qualifications and interviews will be assessed by a Selection Board appointed by the Rector of Università degli Studi di Milano-Bicocca according to the regulations in force. The Selection Board will be made up of at least three experts in the field, selected among the professors and researchers of the recruiting Department.

The Selection Board for the award of the above-mentioned grants is made up as follows:

- Prof. Dimitri Ognibene
- Prof.ssa Emanuela Bricolo
- Prof. Marco Viviani
- Prof. Giuseppe Vizzari; Prof. Domenico Sorrenti (substitutes)

The Selection Board may make use of telematic tools for collegial work.

According to Art. 51 and 52 of the Code of Civil Procedure and D.P.R. 62/2013, the Selection Board looks over the applications to verify first of all the absence of situations of incompatibility among themselves or with the applicants. For each applicant, the Board can award **a total of 100 points** to allocate in compliance with Art. 2 of this call.

In order to be selected for the interview, applicants shall be granted at least 50% of the available score for DEGREES and QUALIFICATIONS by the Selection Board (minimum 32,50 points).

At the end of the interviews, the Selection Board shall draw up a report with a ranking for each applicant. Applicants who have not earned at least 50 points are excluded from the competition.

At the end of the interviews, the Selection Board shall formulate a ranking, formally approved by decree signed by the General Director. The same ranking will be published on the Official Notice Board and on the University official website www.unimib.it , as legal notification to applicants.

Where there is equal merit, preference must be given to the applicant holding a PhD or specialization in medicine. In the event of further equal merit, the youngest applicant is preferred.

The contract will start on the first day of the month following the approval of the acts. In the case of a foreign winner, the starting date is postponed until the acquisition of the residence permit (Permesso di Soggiorno).

The University will notify the winner of the award of the research grant.

Art. 6. - In order to avoid exclusion, within **20 (twenty) days** from the notification of the award, the recipient has to sign a specific self-employment contract, specifying terms and conditions of the relationship to be established.

If the selected candidate fails to make any communication within the time limit or decides to withdraw, or does not sign the contract within 20 days, the research grant shall be awarded to the applicant following the winner in the ranking list. The ranking list will be valid 120 (one hundred and twenty) days after the approval of the acts.

If the recipient decides to withdraw from the contract, he/she must send a 15 days' notice to the Rector, the Scientific Project Head, and the Director of the recruiting Department. The payment related to the last month shall be commensurate with the period of the activity carried out. Failure to give notice or late notice will result in the deduction of one month's allowance as indemnity for lack of notice.

In cases of serious non-compliance reported by the Scientific Project Head and/or upon request of the recruiting Department Board, the contract may be terminated by the Rector, after consultation with the person concerned.

The contract is automatically terminated in the following cases:

- unjustified failure to start or delay of the activity;
- early termination of the research activities
- suspension and/or absence, even if not continuous, that continues for a period exceeding one-sixth of the duration established in the contract;
- serious violation of the regime of incompatibilities established by Article 2;
- negative evaluation expressed by the Department Board on the research activity;
- violation of the obligations arising from the Code of Conduct for public employees according to the Decree of the President of the Republic 62/2013.

The award of the Grant involves the realization of the research program entitled **"Machine learning and computer**

vision algorithms for content recommedations, predictions of popularity, and measurement of threats in a virtual companion for social media" at the **Psychology** of Università degli Studi di Milano-Bicocca, under the supervision of the Scientific Project Head, **Prof. Dimitri Ognibene**.

Grant entitlement does not constitute a subordinate employment relationship and does not give rise to rights in order to access university teaching positions.

Art. 7. - Research grant recipients not complying with the provisions of this call shall be declared ineligible by Rector's decree, subject to written objection.

Art. 8. - The gross amount of the research grant payable to the collaborator, includes social security net of charges to be borne by the Administration, shall be € **46.696,39** and **shall be split into deferred monthly payments**. The grant is exempt from IRPEF (tax on personal income) pursuant to art. 4 of Law no. 476 of August 13, 1984, and is subject, with regard to social security, to the provisions of art. 2, paragraphs 26 et seq. of Law no. 476 of August, 8, 1995, of Law no. 335 of August 8, 1995, as amended; with regard to compulsory maternity leave, to the provisions of the decree of the Minister of Labour and Social Security of July 12, 2007, published in the Official Journal no. 247 of October 23, 2007; and, with regard to sick leave, Article 1, paragraph 788, of Law no. 296 of December 27, 2006, as amended. During the period of compulsory maternity leave, the allowance paid by INPS pursuant to article 5 of the aforementioned decree of July 12, 2007, shall be supplemented by the University up to the full amount of the research grant. All additional amounts will be borne by the recruiting Department.

Each year the University provides insurance coverage for accidents and third-party liability for the recipients of research grants as part of their research activities.

The grant holder's mission expenses shall be paid from the funds of the Scientific Project Head or of the recruiting Department, in accordance with the provisions of the University regulations on missions.

Art. 9. - Pursuant to Law no. 241 of August 7.1990, the person responsible for this selection procedure is Alessandro Cava, Head of the Recruitment Sector, Ed. U6, P.zza Ateneo Nuovo 1, 20126 - Milano.

Pursuant to Legislative Decree no. 196 of June, 30, 2003 and EU Regulation 679/2016, the processing of personal data provided or otherwise acquired by the University is aimed solely at carrying out this selection and it will be carried out by authorised personnel, using procedures, including IT procedures, in the manner and within the limits necessary to pursue the aforementioned purposes. The data will be stored in accordance with the rules on the conservation of administrative documentation. The data controller is Università degli Studi di Milano-Bicocca in the person of the Rector, Legal Representative, with registered office in Piazza dell'Ateneo Nuovo, 1 – 20126 Milano.

Art. 10. - For anything not included in this notice concerning the selection procedure, reference is made to all Italian laws on public competitions and to the Regulation for the activation of research grants mentioned above.

Art. 11. - This Call for Application shall be published and posted on the Official Notice Board of Università degli Studi di Milano-Bicocca and on the Ministry and European Union websites.

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THE RECTOR
Giovanna Iannantuoni

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UOR: Head of Human Resources: Maria Bramanti

Selection Manager: Alessandro Cava

Treated by: Paolo Montedoro

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