Big Data, Digitalisation and Generative AI*

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Big Data, Digitalisation and Generative Artificial Intelligence

Applications in the Financing of Third Sector Entities

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ABSTRACT

Digitalisation, Big Data and Artificial Intelligence have revolutionised all areas of our lives, from communication, work, culture and art to interpersonal relationships and leisure. Consequently, we consider that these tools may have a positive impact on the Third Sector, whose endemic problem is, among others, the lack of funding. To this end, this study examines the implications of Big Data, the advances of digitalisation in the Third Sector, and the uses and implications of Customer Relationship Management (CRM) and Generative Artificial Intelligence applied to the financing of these entities. In parallel, regarding regulation, some of the main measures currently being implemented by the European Union will be addressed, including the European Artificial Intelligence Act, the Data Governance Act and the Data Act.

KEYWORDS: Artificial Intelligence, Digitalisation, Big Data, Third Sector, Financing. **JEL CODES:** G30, K34

1. INTRODUCTION. CURRENT STATE OF GENERATIVE ARTIFICIAL INTELLIGENCE

Artificial Intelligence (hereinafter AI) has sparked a revolution in all sectors of our society, from education, culture, the economy, mobility and finance to medicine, art, and even climate change and environmental sustainability. However, despite playing a ubiquitous role in recent years, it is not a new concept. The first versions of AI began in the 1950s[1]. Initially, its objective was for a machine to pass the so-called Turing Test[2]; despite this, technological advances have rendered these early versions obsolete to the point that measures are being implemented to distinguish human from machine.

The importance of current AI lies in two fundamental aspects. Firstly, it is the first time we speak of a **generative intelligence** based on *machine learning* – that is, one capable of generating content from scratch through prior interaction, processing data and information and learning automatically from experience. The most striking example is SORA by OpenAI, which allows for the creation of video from text prompts with a high level of detail[3].

[1] The first was designed by John McCarthy in 1956. The term AI was first coined at the Dartmouth Conference. Available at: https://www.unlockingeuropesaipotential.com/spain.
[2] A test designed to ask questions and, through the answers, observe if it is a person speaking with a machine or with another person.
[3] Available at: https://openai.com/sora.

The second reason is that this technology has been democratised, marking the first time it has acquired such an advanced level of development that, from a small mobile device, anyone can use it without the need for specialised technical knowledge; almost anyone can utilise it to create, design, organise or communicate[4].

Applications update at unparalleled speed, which makes it difficult to monitor its real evolution, its effects on society, and how certain sectors are calling for its regulation. Nevertheless, the generative AI available to us currently – and the type most employed – is Narrow AI, designed for a specific task and not for multiples at once, which limits it in some aspects[5].

The advance of the technology, added to its enormous possibilities, has triggered significant concern from diverse sectors, which has led to proposals, tools and instruments that allow for the guaranteeing of adequate and ethical use. In 2022, UNESCO carried out a report on the development and ethical repercussions of AI in its principal areas. Across its 11 areas of action in fields as diverse as governance, ethical administration, the environment and the ecosystem, gender, culture, education, health and social welfare, a series of recommendations have been developed directed at Member States as competent authorities in the creation of a legal framework which, in their own words, 'can guide societies in dealing responsibly with the known and unknown effects of AI technologies on human beings, societies and the environment and ecosystems, and offers them a basis to accept or reject AI technologies' (UNESCO, 2022)[6].

For its part, the OECD, through the Recommendation of the Council on Artificial Intelligence – modified on 8 November 2023 – has called upon AI actors to promote and apply a series of principles in the administration and responsible development of this technology, including a series of national policies and cooperation for a 'Trustworthy AI'[7].

At the European level, the Commission has been charged with producing a series of working documents and communications that allow us to understand the trajectory AI will follow in the coming years in the EU. In the communication drafted by the body, the creation of a strategic investment framework in what has been termed 'Trustworthy AI' is highlighted, with the objective that the EU might capitalise on its assets. Regarding the improvement of computing infrastruc-

[4] ChatGPT began in 2022; 4 months later version GPT-4 was released. Anthropic's AI was launched in 2023 and could analyse more than 75,000 words per minute, the year in which Google Bard was also launched. For their part, Apple, Microsoft, and Nvidia have already announced their own AI devices such as Phi 3, Azure, Copilot, OpenELM or Grok, among others. Currently, AI is being implemented autonomously in all types of devices such as smartphones or televisions.

[5] In contrast to Narrow AI, we find General or Strong AI, intelligence grouping all the various skills and capabilities at once, similar to that of humans. On this question see: https://ellisalicante.org/ia.

[6] Its objectives include: a) providing a universal framework of values, principles and actions to guide States in the creation of their own legal frameworks; b) guiding the actions of persons, groups, communities and the private sector with the objective of implementing AI ethically; c) protecting, promoting and respecting human rights and fundamental freedoms, human dignity and equality, including gender equality; d) fostering multidisciplinary dialogue; g) promoting equitable access to advances and knowledge in the AI sphere. (UNESCO, 2022, pp. 14-15).

[7] Its principles include: i) inclusive growth, sustainable development and welfare; ii) human-centred values and equity; iii) transparency and explainability; iv) robustness, security and safety; and, v) accountability. This section also asks AI actors to promote and apply these principles in the performance of their functions. Regarding national policies and cooperation: i) investing in research and development of AI; ii) fostering a digital ecosystem for AI; iii) configuring a political environment propitious for AI; iv) building human capacities and preparing for labour market transformation; and, v) international cooperation for trustworthy AI. (OECD, 2019).

ture and the fostering of a European ecosystem of an innovative character, the attraction of investments in the Union from start-ups and innovators has been proposed[8].

In this line, the Union shall facilitate and promote access to data for new AI companies and the scientific community. The development of trustworthy algorithms will foster adoption and generalised use in different spheres of activity and will boost public and private investments. To lead and stimulate the development of competitive AI systems, the Commission will create so-called 'AI Factories', ecosystems of an open character formed around European public supercomputers which will group together the material and human resources necessary for the development of generative AI[9].

From the economic perspective, in Spain it is expected that AI will generate nearly 300,000 million euros by 2030, according to the report produced by Public First[10], which means that approximately 36% of Spanish companies will have adopted it by that date.

At this juncture, there remains no doubt that generative AI has the capacity to enhance the interaction between human and machine, which translates into an improvement of productivity in all value chains and organisational functions, opening a window to new models of economic activities and, consequently, of economic financing[11].

Advances in this area and in the rest of technologies have permitted generalised use in all sectors. For this reason, we consider that the **Third Sector**[12] can benefit from the significant advances in AI that the market offers us, allowing a greater social reach for its activities without leaving aside access to economic resources and guaranteeing its financial sustainability in the long term.

There are diverse applications already being implemented that have allowed for the offering of innovative solutions, improving internal processes, management and financing, which we consider has derived in a greater social impact for these entities. As we shall see, there are AI applications and projects designed directly by Third Sector entities and, in other cases, integrated into existing applications, functioning as a genuine social tool.

2. THE EUROPEAN ARTIFICIAL INTELLIGENCE ACT AND THE EUROPEAN ARTIFICIAL INTELLIGENCE OFFICE

In an environment where AI is constantly evolving, the EU has set in motion a series of measures with the aim of 'protecting' users and ensuring the appropriate use of the applications offered by the technology. The Artificial Intelligence Act (hereinafter, **AI Act**), approved on 13 March

[8] According to data offered in the communication based on a study realised by the Applied AI Institute for Europe (AAI), the Union counts on a total of approximately 600 companies centred on generative AI, of which one third centres on the development of generative models. (Commission, 2024).

[9] European Commission (2024, b).

[10] Report commissioned by Amazon Web Services. This national market report analyses the impact of AI on the economy of some of the principal EU countries individually.

[11] *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions* (2024). On boosting startups and innovation in trustworthy artificial intelligence. Available at: https://digital-strategy.ec.europa.eu/en/library/communication-boosting-startups-and-innovation-trustworthy-artificial-intelligence.

[12] **Translator's Note**: While the author uses the term 'Third Sector' (*Tercer Sector*) to align with Spanish statutory categories (e.g., *Tercer Sector de Acción Social*), in the Root & Branch glossary we distinguish this from the 'Social Economy'. The former implies filling gaps left by the State; the latter implies a productive alternative to the market. Here, the term is retained to reflect the author's specific focus on non-profit entities.

2024[13], has the objective of improving the functioning of the internal market and promoting the adoption of a human-centric AI, while guaranteeing a high level of protection regarding health, security and fundamental rights, in accordance with the Charter of Fundamental Rights of the European Union (Art. 1.1).

At a general level, the AI Act contains a set of harmonised rules for the implementation, use and transparency of AI in the market; prohibitions of certain practices; specific requirements for so-called 'high-risk systems' and obligations for their operators; rules on market surveillance, governance and enforcement; and measures to support innovation (Art. 1.2).

The AI Act will apply to providers and deployers[14] and their authorised representatives who introduce or provide services within the Union, regardless of whether these are located in the EU or a third country, provided that, in the latter case, the output information generated by the system is used in the EU. Likewise, it will affect importers, distributors, and manufacturers of products based on AI, as well as persons who may be affected by its use within the Union.

Art. 5 of the AI Act enumerates a series of prohibitions with the objective of guaranteeing the ethical use of AI. Including:

- Introduction of techniques that may manipulate the behaviour of persons or result in deception through tools that alter perception or impair the capacity for decision-making, inducing choices that would otherwise not have been made.
- The putting into service or use of systems that target the vulnerabilities of a person or specific group of persons, such as disability, age, specific socio-economic situation, or groups where it may cause considerable harm.
- Systems centred on the classification of persons or groups of persons over a period of time, based on their social behaviour or personal characteristics, among others, that may trigger prejudicial or unfavourable treatment.
- Risk assessment systems used to predict the probability of an individual committing a crime, based solely on profiling or the evaluation of personality traits and characteristics.
- The introduction into the market or putting into service of AI systems that create or expand facial recognition databases via the non-selective extraction (*scraping*) of facial images from the internet.
- The deployment of systems that infer the emotions of a natural person in workplaces or educational centres, except when the AI system is installed or introduced into the market for medical or security reasons.
- Biometric classification systems that categorize persons according to their race, political opinion, trade union affiliation, religious or philosophical convictions, sex life or sexual orientation.
- The use of remote biometric identification in public spaces, save for the security exceptions enumerated in Art. 5 of the AI Act.

[13] Available at: https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138_ES.pdf.

[14] Providers are defined in Art. 3 of the AI Act as: 'a natural or legal person, public authority, agency or other body that develops an AI system or a general-purpose AI model or that has an AI system or a general-purpose AI model developed and places it on the market or puts the AI system into service under its own name or trademark, whether for payment or free of charge'. And, deployer: 'a natural or legal person, public authority, agency or other body using an AI system under its authority, except where the AI system is used in the course of a personal non-professional activity'.

On 21 February 2024, the Commission Decision establishing the **European Artificial Intelligence Office** (AI Office) as a supervisory body for AI entered into force. The AI Office has among its general functions (Art. 2):

- Contributing to the strategic, coherent and effective approach of the Union in matters of international cooperation (Art. 7).
- Boosting the promotion of actions and policies of the Commission through collaboration with other Directorates-General and services of the Commission, especially with the European Centre for Algorithmic Transparency, and facilitating the use of AI models and systems in the EU (Art. 5).
- Supporting the development, implementation and use of trustworthy AI systems that bring social and economic benefits and contribute to the competitiveness and growth of the EU.
- Supervision of markets and of AI.

Concretely, the AI Office will perform the following duties in relation to the AI Regulation (Art. 3):

- Development of tools, methodologies and benchmarks to evaluate AI capabilities.
- Supervision of the execution and application of AI rules.
- Control over risks derived from the use of AI.
- Investigation of possible infringements through the compilation of alerts, complaints and assistance in the preparation of Commission Decisions.
- Supervision of AI systems, especially when their scope of application affects the EU.
- Coordination with responsible sectoral bodies in the supervision of prohibited practices and high-risk AI systems.

Likewise, it will be charged with (Art. 3.2):

- Assisting the Commission in its Decisions, in the drafting of guidance and guidelines for the practical application of the Regulation, and in the preparation of standardisation requests and evaluation of existing standards.
- Developing support tools through harmonised protocols in consultation with Commission services and Union bodies.
- Preparation of reports, evaluations and reviews of the Regulation. Providing technical assistance, advice and facilitating tools for the creation and functioning of Regulatory Sandboxes.
- Coordinating the creation of an effective governance system thanks to the establishment of consultative bodies of the Union and the monitoring of national bodies responsible for this matter.
- The Secretariat of the AI Board.
- Creation and monitoring of codes of practice and conduct at the Union scale.

3. THE ENGINE OF AI: DATA

It is difficult to understand the advance of generative AI without explaining that data constitutes the base upon which it feeds. We are immersed in a new era where data is an object of monetisation and an instrument of exchange between companies, and where our right to privacy has been relegated to second place. Companies like Google, Facebook or Amazon know which phone we

use, where we have travelled, how we have done so, what public transport we take to go to work, what our musical or culinary tastes and preferences are, what our favourite applications are and an endless list of other data that we have voluntarily ceded – and that, if we fail to do so, we run the risk of being excluded from this new ecosystem. All this under the pretext of showing us a more detailed personalisation of advertising, marketing campaigns, searches we perform, or 'offering us a better service'. However, what we must not forget is the actual commercialisation being carried out with that data.

Although Big Data has been defined from different perspectives since its appearance[15], today it entails massive storage, processing and transfer of data on a large scale via the network[16]. Currently, we have enormous databases that allow companies to obtain information regarding a multitude of goods, services, individuals and metadata, among others. This allows them to adapt, reorient, improve or modify their activity, which offers them the possibility of generating personalised catalogues to subsequently exploit them (Sancho López, 2019).

One of the aspects we consider interesting is determining when we are dealing with useful data. For some scholars, we are dealing with Big Data when the origin and form of obtaining the data are multiple, proceed from diverse sources and the volume is such that it is impossible to manage and store it in a traditional manner (Toyama Miyagusuku & Rodríguez León, 2019). Only when data is not considered in isolation, but combined and evaluated in conjunction, does it acquire value (Fernández Pérez, 2023).

The relationship with AI is unavoidable, since if the principal engine of this technology is the algorithm, the fuel that powers it is data. All current AI applications function thanks to the enormous variety of data available and the great processing capacity of the machines we have currently. This ease of management, analysis and transfer has highlighted the need to prevent the data market, its commercialisation and monetisation, from being justified by arguments such as research, innovation, technological advances or progress; that is, that the capitalisation of data is under the 'guise of good intentions' and, therefore, a transparent and ethical use is lacking (De Lecuona Ramírez, 2020).

In this context, the European strategy is a cornerstone of the digitalisation and development of the EU thanks to the creation of a European Single Market for Data together with the enabling regulatory framework for the governance of the common data space. To this end, various legislative instruments have been adopted: the **Data Governance Act (DGA)**[17] and the **Data Act (DA)**[18].

The DGA, applicable from 24 September 2023, focuses on facilitating the creation and development of common European data spaces involving public and private actors in different sectors

[15] Big data initially had three characteristics defined by IBM: volume, variety and velocity. Volume refers to the quantity of data, variety to the type and velocity to transmission and exchange (Miguel de Bustos & Moreno Cano, 2018).

[16] In the words of Reis de Araujo: 'massive accumulation of data and procedures used to identify recurrent patterns within those data surpassing limits and capacities to be treated in a conventional manner. Big data differs from analytical applications and traditional management by the three Vs: volume, variety and velocity'.

[17] Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act).

[18] Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act).

such as health, the environment, energy, agriculture or finance. Among the measures to be developed we can highlight the reuse of public sector data; making citizen and corporate data available for the benefit of society; the promotion of data sharing, ensuring that data intermediaries act as 'trustworthy' organisers of the exchange; and its pooling within the European area[19].

As for the Data Act, which will apply from 12 September 2025, it will boost measures that increase legal certainty for companies and consumers involved in data generation, reducing the abuse of contractual imbalances preventing fair exchange, in addition to including rules offering the public sector the possibility to access private sector data and use them for specific ends or exchange between providers of data processing services, among others. In accordance with Art. 1.1, harmonisation is established in the following areas:

- Making product data and service data available to users.
- Data sharing by holders with recipients.
- Making data available by holders to public sector bodies, the Commission, the European Central Bank and Union bodies when there exists an exceptional need to have such data available for ends of public interest.
- Facilitating switching between data processing services.
- Protecting non-personal data from illicit access by third parties.
- Developing interoperability standards for the access, transfer and utilisation of data.

At the national level [Spain], we can highlight regulations such as Royal Decree Law 117/2024, of 31 January, which establishes rules and procedures for due diligence in the scope of the mandatory automatic exchange of information reported by platform operators; Royal Decree 7/2021, of 27 April, transposing Directive 2019/770 of the European Parliament and of the Council of 20 May 2019[20], which modified certain laws affecting the defence of competition, prevention of money laundering and regarding financial companies, credit institutions and common service companies; and Royal Decree 24/2021, of 2 November, transposing Directive 2019/1024 on open data and the re-use of public sector information and Directive 2019/789 establishing limits to copyright in the digital and cross-border environment, in particular regarding text and data mining[21].

Regarding the subject of this study, Royal Decree 7/2021 has introduced a regulation on digital content and services with the aim of protecting consumers and allowing companies to supply this type of content and services. In European Directive 2019/770 the commercialisation of user or consumer data in exchange for the provision of services by the company is envisaged, and vice versa: in return for digital goods and services from the service provider, the consumer commits to paying a price. As Fernández Pérez (2023) has signalled, 'it is recognised that consumers may monetise the economic value of their personal data in markets for digital content and services'. We thus speak of a contract of digital content with consumers where the consideration is data.

[19] Available at: https://digital-strategy.ec.europa.eu/en/policies/data-governance-act-explained.
[20] Royal Decree-Law 7/2021, of 27 April, transposing European Union directives in matters of competition, prevention of money laundering, credit institutions, telecommunications, tax measures, prevention and reparation of environmental damage, displacement of workers in transnational service provision and consumer defence.
[21] Text and data mining, according to Directives 96/9/EC and 2001/29/EC, refers to 'any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations'. On data mining see Jiménez Serranía (2020).

4. THE DIGITALISATION OF THE THIRD SECTOR AND CRM

The boom in technology has profoundly impacted the way we relate, communicate or do business[22]. There is little doubt regarding the advantages offered by digitalisation. Online interactions expand the offer of channels and tools for relations between organisations. In Spain, the digital modernisation of the Third Sector has not kept pace with the rest of organisations[23]. As the NGO Platform for Social Action (POAS) has highlighted, the relations of entities have typically tended to focus on a specific communication channel, instead of diversifying. Furthermore, their vertically structured organisation, the lack of professionalisation in digital competences combined with bureaucracy and a prevalence of humanitarian profiles – focused on project execution and interaction with the final beneficiary – and the absence of technical roles and project managers, hinders their digital transformation (AEF & Altran, 2019, p.15).

At this point, we must remember that the Third Sector is integrated by non-profit entities among which associations, foundations, social initiative cooperatives and other types of legal persons such as some work integration enterprises and special employment centres stand out. In all cases they must comply with a series of economic, activity, labour and accounting requirements[24]. This, added to their economic model, where people are prioritised over capital, has hindered their financing, which has led them, in our opinion, to a 'delayed digital revolution'.

According to the POAS, the adoption of digital tools is uneven across entities belonging to this network, since only 21.3% of organisations belonging to the Third Sector of Social Action affirm that they do not have a digital transformation plan, with the lack of means and qualified personnel being the two central elements of this digital divide[25], compounded by the differences in resources between small and large entities[26].

Despite this, it is undoubtable that the digital transformation, innovation, modernisation of the sector[27] and the form of addressing social needs have shifted towards a more digitalised focus[28], which we consider is leading to better fulfilment of their objectives and ends and, therefore, into an improvement of the impact of their activities on society, evolving towards a **'socialised digital culture'**.

[22] Communication and relations between organisations in a digital environment present a series of advantages versus traditional offline communications. In the digital era, digital communication is a 'fundamental condition [...] of individual existence and social coexistence' (Jensen & Helles, 2017, p. 9) and constitutive of relationships (Shumate & O'Connor, 2010). Online communication is mediated, choice of channels depends on the relationship between parties and relationships influence choice of communication channel. (In turn in Lock, 1, 2019).

[23] According to the *Report on digitalisation and innovation in the Third Sector of Social Action*, the Third Sector finds itself lagging at least 5 years behind the private sector. Plataforma de ONG de Acción Social (2023) b). Available at: https://www.plataformaong.org/ARCHIVO/documentos/biblioteca/1700570409_informe-digitalizacin-e-innovacin-en-el-tsas-poas.pdf.

[24] On requirements, see: Art. 3 of Law 49/2002, of 23 December, on the fiscal regime of non-profit entities and tax incentives for patronage; and Art. 106 of Law 27/1999, of 16 July on Cooperatives in relation to Law 20/1990, of 19 December, on the fiscal regime of cooperatives. The application of this regime to certain social economy entities has been proposed. Regarding this question, see Luque Mateo, 2024 a and b and Aguilar Rubio, 2024.

[25] On the digital divide, see: Plataforma ONG de Acción Social (2021).

[26] 90% of non-profit entities in Spain are small-sized, according to the 2nd Digital Barometer of the Third Sector and at least 48% of these allocate an amount lower than one thousand euros to digitalisation. Available at: https://www.plataformaong.org/barometro-2022-tercer-sector.php.

[27] According to the report elaborated by the POAS, only 4.4% of surveyed organisations find no benefits in digital transformation. (POAS, 2023).

[28] As examples of digital innovation in the Third Sector we can find: Project *Red de Ciudades que Caminan* (Network of Cities that Walk), Project Libera and Orientatech.

Digitalisation of the Third Sector has been described by AEF & Altran (2019) in 4 different levels:

1. **Traditional:** Integrated by those entities that have begun to consider digital transformation as a reaction to the market. They use some digital channels but are reluctant to change and do not yet present digital culture.
2. **Intermediate:** Present specific initiatives defined or in process of implementation; notwithstanding, they do not have a strategic plan allowing them to achieve objectives. Their team lacks knowledge and experience.
3. **Advanced:** Have the client at the centre of the strategy. Their technology and business areas are aligned and follow the objectives defined within the plan. They present a team trained in data analysis, digital marketing and others.
4. **Native:** Have digital culture, dominate digital transformation, making them participants in their day-to-day. They use methodologies like *Design Thinking* and the team is in constant training. Furthermore, they employ metrics to identify the impact of social initiatives.

Regarding the provision of services, digitalisation offers multiple applications such as organisation of volunteering, management of information, optimisation of quality and frequency of services and a greater response to social demands (POAS, 2021: p.100-102). Furthermore, it contributes positively to strengthening relations with other organisations, with their associates and members, offering the opportunity to innovate in the provision of services for persons benefiting from their activity, such as tele-assistance services or the so-called *makers*[29].

From the Ministry of Social Rights and Agenda 2030, in cooperation with the European Anti-poverty Network, a guidance document for digital transformation and modernisation has been made available, addressing the principal points to be taken into account by organisations in the digitalisation process[30]. Among the different recommendations we can find: digital user experience, digital culture, the value chain and orientation to data.

Among some of the Third Sector entities that have committed to the digitalisation of their organisations we can list *Down Ciudad Real Camina* and the Federation of Deaf People of the Community of Madrid (*FeSorCam*) which have concentrated on improving user experience through digitalisation. Likewise, it is worth citing *Plena Inclusión Castilla y León*, *ASPAD* and *Fundación Esplai Ciudadanía Comprometida* oriented on making digital culture accessible. For their part, *Colectivo la Huertecica*, *UNAD*, *Fundación Meniños* and *Federación Andaluza Enlace* have improved the so-called value chain. Finally, *Asociación Cuantayá*, *Candelita* and *ASPACE Salamanca* have implemented and created in some cases databases, customer relationship management systems (CRM) and classification systems (CIF Applications[31]).

Likewise, through Order ETD1498/2021, of 29 December, the regulatory basis was approved for the granting of aid for the digitalisation of small enterprises, micro-enterprises and persons

[29] These, through the coronavirus makers movement, proposed protection measures for health personnel, police and other persons working during the pandemic. Available at: https://www.weforum.org/projects/coronavirus-makers/.
[30] See, *Guide of orientations for digital transformation*. Available at: https://www.eapn.es/publicaciones/509/guia-de-orientaciones-para-la-transformacion-digital.
[31] International Classification of Functioning, Disability and Health.

in situation of self-employment (**Digital Kit**)[32], adopted from 27 January 2021. According to Art. 5 of the Order, the programme has the purpose of carrying out via public subsidy the 'improvement of the competitiveness and level of digital maturity of small enterprises, micro-enterprises and persons in situation of self-employment', all through a series of 'digitalisation solutions'. Among these stand out: aids for websites and internet presence, e-commerce, social media management, customer management, *business intelligence* and analytics, process management, digitalisation of electronic invoicing, virtual office services and tools, secure communications and cybersecurity.

A question that may arise here is whether Third Sector entities can benefit from this aid. According to Art. 8.1 of the cited Order, beneficiaries are required:

a) To be considered a small enterprise or micro-enterprise in accordance with the provisions of Annex I of **Commission Regulation (EU) No 651/2014** of 17 June 2014.

b) To be enrolled in the Census of entrepreneurs (*empresarios*), professionals and retainers of the Tax Agency or in the equivalent census of the Foral (Chartered) Tax Administration, which must reflect the economic activity effectively developed at the date of the aid application.

Referring to Annex I of Commission Regulation (EU) No 651/2014 of 17 June 2014, Article 1 provides that: 'an enterprise is considered to be any entity engaged in an economic activity, irrespective of its legal form. In particular, self-employed persons and family businesses engaged in craft or other activities, and partnerships or associations regularly engaged in an economic activity, shall be considered to be enterprises'. That is, any type of entity performing an **economic activity** may be considered for the purposes of the Regulation as an entrepreneur (*empresario*)[33].

This interpretation, in relation to the requirement of census enrolment collected in section b)[34], which must be complied with by all those natural or legal persons and entities having a relation or obligation of a tax character, in accordance with Art. 35.1 and 2 of the General Tax Law, leads us to conclude that those Third Sector entities developing economic activities *can* indeed request and be beneficiaries of the Digital Kit.

[32] **Translator's Note**: The *Kit Digital* is a specific Spanish state aid programme funded by the EU Next Generation funds, designed to subsidise the adoption of digital solutions for small businesses and self-employed individuals.

[33] **Translator's Note**: The Spanish text uses *Empresario* (Business owner/Entrepreneur) to discuss tax census requirements. However, in the context of the cited EU Regulation 651/2014, the correct legal term is 'Undertaking' (*Empresa* in the broad EU sense: any entity engaged in economic activity). The author's argument rests on proving that NGOs engaged in economic activity qualify as 'Undertakings' for the purpose of receiving aid.

[34] Those persons or entities carrying out activities of a professional or business character, paying rents subject to retention or payments on account, carrying out intracommunitory acquisitions of goods subject to VAT, non-residents of Spain according to provisions of Art. 6 of Law on Income Tax of non-residents, persons or entities not situated in territory of application of VAT when they are taxable subjects of said tax and those having said condition according to own provisions of Law 37/1992, of 28 December (VAT Law), form part of the census. According to Art. 5.1 of cited law, any person or entity carrying out business or professional activities defined in section two shall be reputed entrepreneurs or professionals, that is, those implying the ordering on own account of material and human production factors or one of them, with the aim of intervening in production of goods and services. This leaves us a very narrow range of activities not entering this category so, for purposes of the Law, unless the Third Sector entity carries out activities of exclusively gratuitous character, they shall be understood as entrepreneur. Census enrolment is carried out through models 036 and 037 available at the Tax Agency Headquarters. Available at: https://sede.agenciatributaria.gob.es.

One of the platforms that has specialised in the digitalisation of these subjects is the *Tercer Sector Digital* platform[35], which helps in the digital transformation and modernisation of the entity and the projects and activities they carry out. Furthermore, it offers digital marketing services, workshops and training, all through different models such as payment of a subscription fee, personalised accompaniment through the integration of personnel within the entity, and workshops and training for the organisation's technical team.

The tool we consider to have greatest potential for the Third Sector based on data is the so-called **CRM** (*Customer Relationship Management*). This system has been applied for some time in diverse sectors such as banking[36], construction[37], the wine sector[38] or tourism[39]. As a result of advances in technology, its possibilities have expanded exponentially. Among the characteristics of its applications we find information administration, task automation, centralisation of documentation in the cloud, digital marketing and the generation of analyses and reports from obtained data.

The fundamental elements of a CRM have been identified by diverse authors[40]. Among them stand out:

- A database where information considered relevant by the entity is stored and compiled.
- The analysis of those data through a series of parameters established by the organisation.
- The establishment of a strategy allowing the identification of potential clients or, as is the case in the Third Sector, possible donors and patrons.
- Customer retention.

In this point, AI has had an important role in its automation thanks to the management and analysis of data. In our case, we consider that the uses of a CRM can be adapted easily to the Third Sector, specialising in all those activities related to **fundraising**[41], and particularly regarding donors and members.

Among activities dedicated to fundraising, we can highlight those carried out internally by the entity oriented to the capturing of resources through human and material means possessed by the entity, and external ones, defined as those directed at the obtaining of economic resources placed at the service of the entity (Carbajo Vasco; Ruesga Benito; Da Silva Bichara, 2019). As can be observed, the CRM can be oriented in both aspects thanks to the analysis and conservation of data proceeding from clients, donors and members, which will allow them to analyse – or reorient in case of being necessary – their activity, directing it towards the capturing and retention of new users and patrons or of existing ones, respectively. All this, combined with AI – as we shall see below – streamlines all processes related to data management.

[35] Available at: https://www.tercersector.com.es/.
[36] Gallego Gómez, C., 2017.
[37] Guerola Navarro, V., Oltra Badenes, R., & Gil Gómez, H., 2021.
[38] Guerola Navarro, V., Oltra Badenes, R., Gil Gómez, H., & Sáenz Magdalena, A., 2021.
[39] Rodríguez Molano, J. I., Herrera Contreras, N. E., & Vásquez Romero, D. F., 2020.
[40] Ennaji, F. Z., El Fazziki, A., Sadgal, M., & Benslimane, D., 2015.
[41] See, Carbajo Vasco, D.; Ruesga Benito, S.M. & Da silva Bichara, J., 2019.

5. GENERATIVE AI AND ITS APPLICATIONS IN THE FINANCING OF THE THIRD SECTOR

One of the principal obstacles of the Third Sector is the constant dependence on external financing (Hinojosa Torralvo, 2017), due to the fact that they present a structure of functioning and organisation where the social is prioritised over capital, which may suppose an obstacle in their development and economic sustenance. In this context, we consider that applications of AI, regarding fundraising and task optimisation, can imply an advance in the obtaining of financing.

The programmes starting to be implemented base their functioning on algorithms centring on data analysis, simulation and **prediction**, which converts them into a useful tool in fundraising or entity financing activities. Among their applications stand out conversation interfaces such as chatbots, language prediction and response personalisation directed at the acceleration of data processing, which supposes added value in task automation. AI takes advantage of the great capacity for data analysis for its automatic learning, offering information in real time on possible actions the donor will carry out and redirecting, in case of being necessary, donor campaigns.

Regarding applications of AI directed at the ambit of companies, and by extension Third Sector entities, doctrine has identified two different focuses. On one hand, the internal focus comprising all operations and activities centred on the organisational ambit and the economic optimisation of resources. And, on the other, those oriented to the attracting and obtaining of external economic resources, among which is found the optimisation of customer experience, the development of new goods and services and their recommendation, or the capturing and simulation of subsidies of a public character[42].

AI programmes focused on fundraising are specialising principally in identifying and predicting which avenues are most efficient in attracting economic resources, playing a dominant role in the analysis and management of information and data. In this context three different models have been identified: descriptive, prescriptive and predictive (Song Ziheng, Ping Ng, 2023):

1. **Descriptive:** Summarises historical data of the databases available to the entity and provides information on facts that occurred previously.
2. **Predictive Analysis:** Centres on offering, through the different algorithm models available to the AI programme, a future prediction of what the possible scenarios will be with the historical analysis of data.
3. **Prescriptive Analysis:** Offers recommendations on what actions are most recommendable or must be taken based on previous models.

These patterns allow for a greater optimisation of functioning and the realisation of tasks more effectively thanks to the added value of AI. Carried into practice, an entity interested in obtaining economic resources must concentrate part of its activity in campaigns for donor acquisition, crowdfunding or business collaboration agreements and advertising sponsorship. In this point, the entity can know what type of donor participates and collaborates most with it, what

[42] Examples include the creation of chatbots for personalisation of messages, interaction with clients, web and social media positioning or optimisation of fundraising campaigns and initiatives.

actions have functioned best historically during its useful life, how they might retain or capture new patrons, and what activities, campaigns, advertising sponsorship contracts or collaboration agreements might function best.

Regarding grants or participation in public tenders, AI allows for the **simulation** of quantities that could be received or directly request – under human supervision – the grant. For all this, we consider that it offers important assistance to fundraisers in strategic decision-making thanks to the analysis of available data.

Among AI tools that can be oriented to Third Sector entities we can highlight[43]:

- **Fundraising and donor acquisition:** AI helps analyse patterns and predict which donors have greater possibility of contributing or which campaigns function best. The use of chatbots in this point is crucial, adding value to the donor experience[44].
- **Efficiency in activities:** Automation of routine tasks such as sending emails, scheduling appointments or creating social media posts is simplified enormously.
- **Analysis of societal needs:** Reports derived from data available to the entity and from AI interaction with others allow identifying needs demanded by the community and adapting campaigns in a personalised way to the profile of users, members and associates.
- **Impact measurement:** The immense quantity of data collected and managed are analysed and interpreted to evaluate the efficacy of initiatives adopted by the entity.
- **Collaboration projects:** AI can offer help when establishing synergies and possible collaborations with other entities, identifying those presenting an affinity of social object and purpose.
- **Voice recognition and language translation:** Among auxiliary uses we can highlight language translation, voice recognition and automatic text reading which allow the entity to relate with other persons or entities eliminating language barriers, and furthermore makes interaction with persons with some type of functional diversity more accessible and human.
- **Integration with virtual reality:** Virtual reality and augmented reality applications centred on AI offer immersive narratives for informative ends.
- **Fraud detection:** Through algorithm training, AI can improve security, detecting possible threats and preventing in this way actions of a fraudulent character that may put the integrity of the entity at risk[45].

Although we will focus on AI applications and instruments allowing the optimisation of obtaining economic resources, the tools provided by this new technology do not cease to be interesting in other fields related to social attention. Thanks to data analysis and interpretation, entities can identify persons in situation of vulnerability and social exclusion or victims of an environmental

[43] Ali A. Gooyabadi & Zahra GorjianKhanzad & Newton Lee, 2024. "The AI Revolution in Nonprofits: A New Paradigm", Springer Books, in: *Nonprofit Digital Transformation Demystified*, chapter 0, pages 175-185, Springer.

[44] As examples of Chatbots being used in fundraising we can highlight: Conversica, Hugging Face and Intercom, which offer tools for communication with donors. Others such as Clearbit and ZoomInfo analyse data from diverse sources to identify persons fitting a donor profile indicated for the organisation. (O. Cherniavska, A. Belov, N. Shmygol, M. Järvis, O. Cherniavska and T. Tsalko, 2023).

[45] Kount Sift and Signifyd stand out as applications analysing transactions in real time for identification of behaviours of suspicious character and protection of donations from fraudulent actions (ibidem).

catastrophe. This is the case of *GiveDirectly*[46], a non-profit organisation offering the possibility of sending money to persons in situation of extreme poverty directly. In this case, through AI developed by Google (SKAI model), the organisation has been able to identify more rapidly zones destroyed as a consequence of a natural disaster like a hurricane and identify which areas have been left in worse state, comparing images of before and after. According to the organisation, this technology has offered the possibility of locating concrete geographical zones up to six times faster, an activity that previously had to be done with human means[47].

Below, we examine some of the AI programmes oriented to the financing of Third Sector and non-profit entities.

A) WEGRANT - ULISES

Wegrant is software offering diverse tools directed at the obtaining of public grants and other types of aid for companies and entities. Thanks to the AI integrated into the **Ulises** application, the organisation can carry out **simulations** on the aids to which it may have access and what the probability of obtaining them is. Furthermore, it offers other types of services such as a search engine for a list of current and future public aids, reports in real time of the probability of obtaining them, and a user help guide. Through the automation of the management and access process, the most suitable aid processing modality is selected for each case.

The simulator uses available data from more than 3,000 different subsidies to identify which aid adapts best to each company or entity, and simplify the application through its pre-selection on the basis of compliance with the requirements of the grant[48]. Another particularity of the platform is the connection with principal financial entities, assisting in this way the obtaining of financing. Likewise, through AI, entities are connected with internal consultants, such that, although the process is widely automated, it does not leave aside the human part[49].

B) DATARO

The Dataro application, with an interface similar to ChatGPT, offers the possibility of realising lists of donors automatically, simulations and **prediction of behaviour**, offering the possibility of capturing new donors or maintaining current ones. Thanks to the CRM and, therefore, the data available to the entity, these can carry out a prediction of how the donor will act in future campaigns. In this way, it can reorient its actions towards patrons directly and efficiently.

The programme uses anonymous data proceeding from other organisations with the aim of 'training the algorithm' and obtaining precise predictions. Dataro is structured in a series of models oriented to growth and support of fundraising activities. Each of the modules includes a series of tools of a predictive character adapting to a specific objective as a function of the type of collection campaign being developed by the entity.

Among current predictive modules we find:

[46] Available at: https://www.givedirectly.org/.
[47] Available at: https://www.givedirectly.org/hurricane-relief-2022/.
[48] Available at: https://www.elespanol.com/invertia/disruptores-innovadores/politica-digital/espana/20230504/inteligencia-artificial-facilitar-financiacion-publica-empresas-espanolas/760924031_0.html.
[49] Available at: https://wegrant.com/no-busques-subvenciones-encuentralas/.

- **Appeals Module:** Centres on identifying, analysing and foreseeing persons who will donate again, from among recipients who have received emails or direct messages from the entity, differentiating those who have made donations of between 10 to 500 dollars or euros recurrently during a period of three months, and those who have carried out a single donation in three months without having made any before or during a period of 24 months.
- **Recurring Giving (RG) Module:** Identifies donors who have carried out donations recurrently of at least 5 dollars or euros over a period going from 3 to 6 months.
- **Convert to RG Module:** In line with the previous one, identifies donors who have converted to Recurring Giving during a regular period of 6 months and have had at least one donation previously.
- **Mid-Level Module:** Predicts donors who will make contributions above the average and below the maximum established in the campaign.
- **Stewardship Module:** Centres on predicting donations superior to the minimum established and possible legacies during a period of 12 months.

From the practical point of view, these models are based on forecasting what the probability will be that a donor carries out a determined action again based on prior information available to the entity. To do so, the prediction is based on assigning the donor a score from 0 to 1, where 0 means the algorithm is sure the donor will not make a contribution, and 1 that they will. These data are reflected in the CRM and in the application. All donors have an assignment between these two numbers, whereby a significant quantity of persons is discarded, centering efforts on those profiles having highest probability of donating. The application, furthermore, allows establishing 'donation thresholds' for donors, offering information on the average value of the contribution made. In any case, at least one donation must have been carried out by the subject for the system to estimate future operations.

As we can deduce, for the system to function, the entity must count on a significant database identifying the donor, classifying them in different categories based on demographic data, donations made previously, possible interests derived from previous campaigns, among other criteria. The programme allows recognising and mapping all transactions made in favour of the entity, the provenance of the donation and of the campaign. In this way, the application can segment donors, analyse the **traceability** of the contribution, the impact of the campaign and, in case of being necessary, reorient the latter towards a determined donor profile as a function of the objective they wish to achieve.

As support for fundraisers, Dataro offers reports on campaign results, existing donations, and carries out monitoring of predictive models. Furthermore, it allows the user to view directly, through the Data Hub extension, the data being taken into account by the algorithm in the prediction.

Another function of this programme is the creation of marketing campaigns and communication channels in a segmented manner. Through *machine learning*, AI offers task automation such as drafting and sending personalised emails, reuse of content for different communication channels available to the entity, or the creation of personalised campaigns.

Among principal entities using the application stand out UNICEF, Greenpeace, Amnesty International or Save the Children. In the case of UNICEF (Australia), it increased net revenue by

26% and net return on investment (ROI) per campaign by 35%, according to information offered on the company page, which supposed 30,000 euros of savings in costs per campaign[50]. In the case of Amnesty International (Australia), through this tool, 72 additional confirmed legacies were obtained for the year 2022, which meant – in comparison with previous years – an increase of 60%, resulting in more than 4 million additional dollars[51]. Regarding Greenpeace, it has retained 531 additional donors, collecting more than 235,000 euros in monthly donations during a period of 18 months. Through automatic learning, the AI identified the best donors for the campaign they wanted to carry out and, in this way, profiled donors to later perform a 'call to action'. Finally, in the case of Save the Children, the use of Dataro supposed an additional increase of 12,000 dollars regarding previous campaigns.

C) SALESFORCE

Salesforce is a cloud-based system to help organisations in the management of potential clients, existing ones and donors, allowing connecting them with the organisation. Although oriented to companies, it offers tools for non-profit entities.

Through its technology based on the use of CRM and AI, the entity can manage and profile sales with clients through personalised emails, obtain reports during interactions with these for the resolution of possible problems, boost interaction and personalise the experience of each client through automation.

In the area of fundraising, the programme allows using an extension termed **Nonprofit Success Pack**, centred on the collection and tracking of funds and aids. Through this latter, the possibility is offered to manage the relationship with donors, volunteers and clients of the entity in a centralised manner, generate reports from obtained data and administer income received from donors. Furthermore, it allows carrying out a tracking of public subsidies and aids granted, administering and publishing micro-financing projects and campaigns, and integrating marketing tools already seen, such as content creation and sending profiled emails.

Regarding AI, the application uses different tools to boost and personalise interactions. Among them stand out: Service GPT, Sales GPT and Einstein GPT Trust Layer. The first centres on the generation of automated and personalised responses to clients through a Chatbot, and summarises automatically interactions carried out with them, which allows 'getting ahead' of possible future queries; Sales GPT, for its part, centres on sending automatic emails based on data stored by Salesforce; finally, Einstein GPT Trust Layer takes charge that user data do not leave the cloud nor are managed by third parties to train other AI models.

Among the most recognised entities using Salesforce stand out the Red Cross (American), diverse United States universities, the Canadian Cancer Society[52] or the Ronald McDonald Foundation[53] in Spain, which has been using this application since 2021.

[50] Available at: https://dataro.io/casestudy/how-unicef-australia-leverage-ai-in-direct-mail-appeals-to-help-more-children-in-need/
[51] The Organisation carries out three independent legacy campaigns per year; through the scoring system previously mentioned, it could make predictions of possible legatees and direct its campaigns from multiple communication channels towards them directly, such as direct messages or profiled advertising in social media.
[52] Available at: https://www.salesforce.org/stories.
[53] Available at: https://fundacionronald.org/salesforce-comprometido-con-nosotros/.

6. FINAL REFLECTIONS

Generative AI represents an opportunity for the financing of Third Sector entities. Its advances have allowed for the democratisation of this technology, facilitating its implementation in diverse sectors. The EU, in an attempt to protect the rights of citizens, has acted quickly to regulate and harmonise the use of AI through a series of measures such as the AI Act and the AI Office. However, from a critical perspective, it is still too early to know what its true effects will be. Despite the fact that the Regulation establishes a series of measures and prohibitions regarding its use, we do not yet know if it may have negative repercussions on its development in Europe, or if it will truly watch over the rights of the population rather than becoming an instrument of control.

In Spain, despite the digital transformation occurring in different sectors, few organisations have modernised their infrastructure, offered training to their members, or implemented the new tools offered by digitalisation. However, the diverse changes emerging in entities with the aim of fulfilling their social objectives and ends in a reliable manner have become evident, evolving towards what we have termed **'socialised digital culture'**.

The implementation of CRM, together with the data processing power offered by AI, can multiply financing options. Through the use of applications like Wegrant, Dataro or Salesforce, entities can find an alternative avenue to guarantee their economic sustainability, characterised principally by subsidies and aids of a public character. Thanks to these programmes centred on data analysis, simulation or prediction, the process of fundraising is simplified enormously.

Finally, we consider that there remains a road to travel and it must be the willingness of entities, together with the help of institutions and society, that mark the first steps towards a genuine modernisation of the Third Sector.

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