

MANAGEMENT GUIDE

THE DIGITAL IMPACT OF YOUR ORGANIZATION

DIGITAL HUMANISM IN ACTION

Method for creating a guideline and a catalog of measures

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1. Summary

Every organization has a **digital impact**: The digital systems used have a significant impact on employees, customers, partners and the environment. Systems that work on the basis of **artificial intelligence have brought the question of how to deal with the digital even more at the center of social and economic discussion. All organizations** are called upon to get clarity about their digital impact. The target group of this guide are companies of all sectors and sizes, public administration as well as scientific and civil society organizations. This management guide:

- gives managers and interested parties an overview of the theory of digital humanism,
- explains its importance for any organizations and
- explains the "digital impact method" for planning and implementing digital humanistic measures.

The guide enables companies and other economically structured organizations to **get started with digital humanism**. The application of the digital impact method does not require a change in the overall strategy, but focuses on the short-term creation of an organization-specific **guideline** on digital humanism and the **implementation of initial measures** to optimize the digital impact for all stakeholders. If initiatives (e.g. sustainability reporting) already exist in the company or management control systems have been introduced, the management guide provides ideas for completing these initiatives and systems with digital-humanistic goals and measures.

The term "digital humanism"

In all its manifestations, humanism has placed people and their personal and social development at the center of attention, at least since the Enlightenment in Europe. Today it is important to see

people and their environment in the digital context, one of the strongest determinants of our lives and economies. It is important to guarantee personal and organizational digital sovereignty, actual compliance with existing law in the digital space and the inviolability of human dignity. This guide focuses on the explanation and **implementation of digital humanism for organizations**, which is why the high principles of digital humanism just mentioned are translated here into three economic design fields (people, planet, profit).

The proposed economic **definition** of digital humanism is:

Digital humanism describes the approach of an organization that ensures in the long term and honestly that the digital systems it creates or uses generate the most positive overall effect on all individual stakeholders and do not violate any values. The profitability (profit) is closely and unconditionally related to the effects on society (people) and ecology (planet).

Digital humanism has already entered our organizational management nationally and internationally under a wide variety of names. Among other things, the manifestations of digital humanism in corporate digital responsibility (**CDR**), in the digital aspects of environmental, social and governance (**ESG**), in the UN Sustainable Development Goals (**SDG**) and in company examples are described in this guide . In its programs and its legislation, the **EU** shows the implementation of the digital-humanistic principles, especially in the upcoming **AI Act**.

It will be in the guide **twelve value-based and business reasons** that require measures to promote digital humanism. **Nine organizational purposes** show the relevance and effectiveness of a digital-humanistic approach by organizations.

All participants in the **digital value chain** (digital providers , digital service providers, application organizations and end customers) have a digital impact and a digital-humanistic **responsibility**.

The **digital impact method described here** enables the planning of an organization-specific guideline and the implementation of digital-humanistic measures in **six steps**.

The appendix contains structured **inspirational questions** that are intended to facilitate the required **participation** of the organization's employees and other stakeholders.

Each organization should adapt this **voluntary method** to reflect the specific culture and to come to its results. The method makes it easier to manage existing and new measures and to keep the **organizational burden low**. A template for a **statement** by the organization on digital humanism as a guideline and bracket for the measures is part of the digital impact method.

In 2022 and 2023, the method was tested and refined with several organizations. A Science and Society Board with renowned experts reviewed the management guide. It is available free of charge under Creative Commons (BY-NC-SA 4.0). It is a living document, which means further input and examples are welcome: info@humanism.digital

The project is supported by the Vienna Business Agency promoted. The project partners are Goodshares Consulting, WU Executive Academy and Martin Giesswein.

" We need to shape technology around human values and needs, rather than technology shaping people to their detriment. "¹

¹Based on the Vienna Manifesto of Digital Humanism:
<https://caiml.dbai.tuwien.ac.at/dighum/dighum-manifesto/>

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2. Foundations of Digital Humanism

"Humanism" is a common collective term for several philosophies. Their common core of content is an optimistic assessment of humanity's ability and striving to find a better way of life.

"The chief purpose of human life is to work for the happiness of men on this earth and within the limits of nature, which is our home." Corliss Lamont²

Jean-Jacques Rousseau, Europe has strong humanistic pioneers, but antiquity also produced the essential foundations for a good human life with Aristotle's virtue ethics. Today, in the digital society with the Internet, social media, Web3 and artificial intelligence (AI), the question arises as to the position of people in relation to digital applications and tools. Immanuel Kant's categorical imperative could be worded differently in the context of a digital society: "Always act only according to your maxim in a digitally networked world, which you can want to see a universal law for the protection of human dignity, individual digital sovereignty and the respectful digital interaction."³

With the term "digital humanism", a theory has developed in recent years that does not place the technology itself at the center of digital thinking and action, but people and their environment. The German philosopher and former politician Julian Nida-Rümelin set a milestone in terms of content with his book "Digital Humanism". In it ⁴he advocates a humane and ethically responsible use of digital technologies. Its main statements are:

- Preserving Humanity: It is important to put human nature and human values at the heart of digital transformation. Technology should serve people and not the other way around.
- Education and critical thinking: An important component of digital humanism is the teaching of media literacy and critical thinking to enable people to use digital technologies responsibly and effectively.
- Responsibility of technology companies: They are required to take ethical responsibility for their products and services and to take measures to protect the privacy and personal data of users.
- Social justice and inclusion: Digital humanism emphasizes the need to make digital technologies accessible and usable for everyone, regardless of social background, education or geographic location. This promotes equal opportunities and social justice.
- Sustainability: Digital technologies should be designed and used in an ecologically sustainable manner in order to reduce the ecological footprint of digitization and to use resources efficiently.
- Democracy and Political Participation: Digital humanism advocates strengthening democratic processes and promoting political participation through digital technologies to support an active and informed citizenship.

²Corliss Lamont, The Philosophy of Humanism, Eighth Edition, 1997

³Ideas from Michael Wöllert, Nina Memminger, verbal discussion

⁴ Nida-Rümelin, J., Weidenfeld, N. (2018). digital humanism. An ethic for the age of artificial intelligence. piper

- Technology assessment: The ethical assessment and regulation of new technologies is required in order to identify and minimize possible negative effects on society, the environment and individuals at an early stage. Maximize positive impacts.

Nida-Rümelin formulates digital humanism for Europe and the world as a third humanistic way of digitization. So an alternative to digital commercialism (acting aimed only at making the greatest possible profit, emergence of digital oligopolies) and to a digital autocracy (governments control the population with digital surveillance, evaluation of social actions and personal evaluations derived from them and individual prohibitions).

Spiekermann-Hoff's scientific work also focuses on the digital-humanistic cornerstone of ethics⁵. In the context of "value-based engineering", Spiekermann-Hoff deals intensively with the following main requirements, among others: All stakeholders and their potentially affected values must be included in the planning and operation of (digital) systems. Before a system is developed, the value requirements for this system are defined in the form of ethical system requirements ("Ethical Value Requirements" or "EVRs"). Thus, in addition to purely functional and commercial system requirements, human value assumptions become the basis for the concrete design of the present system. In addition, there is "IEEE 7000"⁶ (ISO/IEEE 24748-7000), a standard from the two major standardization organizations ISO and IEEE as an implementation standard. This standard supports innovation management, product management, the IT department and the top management of organizations of all sizes with a value-driven alignment of their IT systems. The application of the IEEE 7000 is an ideal digital-humanistic measure in terms of these management guides, especially when creating (digital) products or services. She was awarded the Austrian Standards Award at the GameChanger Festival in 2023 awarded in Vienna.

Spiekermann-Hoff also proposed an application of the standard in relation to the AI Act.⁷ The IEEE provides an appendix to the standard as a standard for responsible handling by an organization when developing AI systems.⁸

In addition, Spiekermann-Hoff has shaped the understanding of "good" digitization in recent years and thus indirectly the principles of digital humanism with its theses and demands:

- Data protection and privacy: The importance of protecting personal data and privacy in the digital world is emphasized and promotes wise implementation of privacy by design to prevent data misuse and invasion of privacy.
- Human values at the centre: Human values such as dignity, freedom, human autonomy and justice are at the heart of the development of digital technologies. Technology should serve people and not the other way around.
- Corporate responsibility: In the digital economy, companies should act based on values and take on more value-creating responsibility for their products and services, beyond the purely technical function. This may include the use of open source applications, respectful

⁵ Spiekermann-Hoff, S. (2019). Digital Ethics: A Value System for the 21st Century, Droemer and Spiekermann-Hoff, S. (2023). Value-Based Engineering. A Guide to Building Ethical Technology for Humanity, De Gruyter

⁶ <https://ieeexplore.ieee.org/document/9967807> – Spiekermann-Hoff was involved in this standard throughout its creation and managed it as Vice-Chair .

⁷ <https://www.derstandard.at/story/2000145057027/sechs-monate-ethik-diaet-fuer-gpt-nur-ernstliches-abnahme-macht>

⁸ <https://standards.ieee.org/ieee/24748-7000/11098/7000/6781/>

handling of the privacy of users or generally an implementation of value-based and thus ethical design principles (ethics by design) that is individually tailored for organizations.

- Algorithms and artificial intelligence: High interface accuracy is required in the design and implementation of networked systems that use algorithms and artificial intelligence; it needs a value-driven design and responsibility for the development of AI and the involvement of experts from different disciplines.
- Digital competence: Digital education and media competence in society should be promoted. This means that people should be able to control digital technologies, critically question digital information, and use digital media in doses.
- Social justice and equal opportunities: Digital technologies should be developed and used in such a way that more social justice and equal opportunities are created, not less.
- Analog world: Not everything has to be digitized. The continued existence of cash and digital-free time are concrete examples from Spiekermann-Hoff's positions.

Spiekermann-Hoff is one of the many signatories to the Vienna Manifesto on Digital Humanism ⁹. Behind this declaration is the "Digital Humanism Initiative". It aims to build a community of scientists, policy makers and industry players. These are committed to ensuring that the development of technologies continues to be geared towards the interests of people. Hannes Werthner, university professor emeritus at the Vienna University of Technology, acts as chair of the Digital Humanism Committee. The anthology " Perspectives on Digital Humanism " emerged ¹⁰ from this circle as a further contribution to the ongoing international discussions. It contains a collection of 46 articles by experts from different disciplinary and institutional backgrounds, who present their views on the interaction between man and machine.

The manifesto itself, to which you can commit yourself by signing¹¹ online, postulates the following basic principles:

- Digital technologies should be designed to promote democracy and inclusion. This requires special efforts to overcome existing inequalities and to use the emancipatory potential of digital technologies to make our societies more inclusive.
- Privacy and freedom of expression are essential values for democracy and should be at the core of everything we do. Therefore, artefacts such as social media or online platforms need to be changed to better ensure freedom of expression, information dissemination and privacy protection.
- Effective regulations, rules and laws must be created, based on broad public discourse. They should ensure predictive accuracy, fairness and equity, accountability and transparency of software programs and algorithms.
- Regulatory authorities must intervene in the case of technology monopolies. It is necessary to restore market competitiveness as technology monopolies combine market power and suppress innovation. Governments should not leave all decisions to the markets.

⁹ <https://caiml.org/dighum/>

¹⁰ Werthner, H. et al. (2022). Perspectives on Digital Humanism, Springer

¹¹ <https://caiml.dbai.tuwien.ac.at/dighum/dighum-manifesto/ - sign-the-manifesto>

- Decisions that may affect individual or collective human rights must continue to be made by people. Decision makers need to be responsible and accountable for their decisions. Automated decision-making systems should only support people, not replace them.
- Scientific approaches that encompass different disciplines are a prerequisite for overcoming the challenges ahead. Technological disciplines such as computer science need to collaborate with social sciences, humanities and other sciences and break down disciplinary silos.
- Universities are where new knowledge is produced and critical thinking is cultivated. Therefore, they have a special responsibility and must be aware of it.
- Academic and industrial researchers need to engage openly with wider society and reflect on their approaches. This must be embedded in the practice of producing new knowledge and new technologies, while at the same time defending freedom of thought and science.
- Practitioners everywhere should realize their shared responsibility for the impact of information technology. They need to understand that no technology is neutral and they need to be sensitized to see both potential benefits and possible downsides.
- You need a vision for new curricula that combine knowledge from the humanities, social sciences and engineering. In the age of automated decision-making and AI, creativity and human consideration are crucial to the education of future engineers and technologists.
- Education in computer science and its social impact must begin as early as possible. Students should learn to combine information technology skills with an awareness of the ethical and social issues involved.

Digital sovereignty as the basis of digital humanism

In addition to the demands of the manifesto, digital humanism also requires digital sovereignty. Digital sovereignty describes the ability of an individual, an organization or a state to act autonomously and independently in the digital world. It's about being in control of your own data, making self-determined decisions and having the necessary digital skills to be able to act safely and efficiently in the digital world.

At an individual level, digital sovereignty means that individuals should be able to use digital technologies to achieve their goals while protecting their privacy and data.

At the level of organizations or companies, digital sovereignty includes the ability to develop and implement one's own business models and strategies without being dependent on external digital platforms, service providers or technologies.

At the state level, digital sovereignty means that a state has the ability to control and shape its own digital infrastructure, regulations and policies to protect and promote the interests and rights of its citizens.

In doing so, it is crucial to focus on developing skills and especially tools that are readily available to all stakeholders: the developers of digital systems, the regulators and the public bodies that ensure compliance, laws or standards. But these tools should also be accessible to informed end users in order to enable real sovereignty. If these instruments are exclusively controlled by digital oligopolists, authentic sovereignty cannot be guaranteed. Therefore, it is essential to invest in research and development to develop appropriate skills and tools. In addition, there needs to be strong public awareness and commitment to ensure that such systems are actually put in place. Public authorities must commit to such an initiative to ensure that all stakeholders can act on an equal footing and that real sovereignty is guaranteed.¹²

Initiatives such as Gaia-X have now been launched in the EU to help ensure Europe's future data sovereignty. They provide specifications and open-source software that pave the way for sovereign data exchange between companies in the future. In Austria, this project is supported by the implementation of the Gaia-X Hub Austria¹³.

3. Current manifestations of digital humanism

The principles of digital humanism described above are synonymous with or comparable to the demands and objectives of various national and international initiatives from the private sector, civil society and public administration.

The following manifestations show the variety of manifestations of digital humanism, locally and internationally. They have the following points in common:

- 1) A responsibility of organizations that goes beyond the immediate monetary
- 2) A symbiosis of economic, social and ecological sustainability with a high digital component
- 3) Programmatic character: In a Western commercial world, digital humanism is not a natural law of society, but must be propagated and demonstrated by pioneering organizations in order to spread.

¹²Leopold, H. (2021). Cyber security and data sovereignty for a reliable digital future in Europe. in 30 Ideas for Europe (Volume 1, pp. 83–87)

¹³ <https://www.gaia-x.at/>

Every organization should find its own way to recognize the digital-humanistic responsibility and to implement the principles. The digital impact method presented in this guide provides the structure for an organization-specific implementation so that more examples and forms of the implementation of digital humanism emerge.

3.1. Manifestations in the economy

Corporate Digital Responsibility

CDR initiative ¹⁴has existed since 2018 under the leadership of the responsible German federal ministry (currently BMUV). The aim of this corporate digital responsibility initiative is to make digital responsibility a matter of course for companies in all sectors. The initiative aims to motivate even more companies to go beyond what is required by law to shape digitization in a people- and value-oriented manner. The corresponding CDR code contains guiding principles and objectives to which the members of the CDR initiative are committed. The participating organizations report regularly on measures that contribute to the goals. The following companies published their comprehensive reports in 2022: Telefónica Deutschland, BARMER, Deutsche Telekom AG, ING Deutschland, Otto Group, Weleda AG, Zalando SE.¹⁵

Led by the Federal Association of the Digital Economy in Germany, the corresponding digital-humanistic principles are also processed under the concept of Corporate Digital Responsibility (CDR). "CDR is a management concept that companies use to integrate social and ecological concerns into their business activities and into their interaction with their stakeholders (particularly in the context of digital change). CDR includes the voluntary contribution of business to ethical and sustainable digital development. This goal goes beyond the mere fulfillment of existing legal requirements. An essential part of CDR is the value-based examination of positive and negative as well as direct and indirect effects of the use of digital technologies. In addition, data-driven products and systems as well as digital business processes and models are analysed, weighed up and aligned with the company values with regard to the interests of different stakeholders. The transfer of social norms and values to the digital world plays an important role here. This value-based discussion is based on general questions of digital ethics. This asks about the good and right life and living together in a world shaped by digital technologies, thereby translating existing ethical standards for a digitally shaped society."¹⁶

The CDR Building Bloxx¹⁷, developed by the Federal Association of the Digital Economy in Germany, is a practice-oriented framework that is intended to support business, politics, science and society in developing a common understanding of corporate digital responsibility and uniform standards for its implementation in organizations.

In 2023, an award for successful CDR for the DACH region was given for the first time. ¹⁸The categories are " CDR and Consumer Matters", " CDR and Employees" and " CDR and New Business Models".

¹⁴ <https://cdr-initiative.de/initiative>

¹⁵ <https://cdr-initiative.de/cdr-reports>

¹⁶ <https://www.bvdw.org/der-bvdw/gremien/corporate-digital-responsibility/cdr-building-bloxx/>

¹⁷ <https://www.cdr-building-bloxx.com/>

¹⁸ <https://www.cdr-award.digital/>

Fairwork for digital platform participants

Digital humanistic goals can also be endangered or promoted by digital platforms. The high market power, the mostly very distanced digital leadership of the platform workers and their (bogus) self-employment have in particular moved interest groups and research institutions to digital humanistic initiatives. One of them is the Fairwork approach to promoting decent platform work: Fairwork is an international comparative research project led by the Oxford Internet Institute and the Berlin Social Science Center (WZB) and is active in 28 countries. The aim of working with platforms, stakeholders and politicians is to create a fairer future for digital platform work. With the Fairwork Austria 2022 Report,¹⁹ working conditions are also evaluated in the Austrian platform economy. The following industries and companies were examined: food delivery services by Lieferando and mjam (today Foodora), food delivery by Alfies, transport services by Bolt and Uber and the cleaning platform ExtraSauber were rated in the categories of fair pay, fair working conditions, fair contracts, fair management and fair representation.

Lieferando was rated the best with 8 out of 10 points. It is the only one of the platforms analyzed that offers all its employees employment contracts and an hourly wage above the minimum living wage guaranteed by collective agreements. There is access to paid sick leave, vacation and parental leave options. Lieferando was also able to prove that there are no unfair clauses in the contracts.

Environmental, Social, Governance (ESG)

ESG refers to the three key factors in measuring an organization's sustainability and social impact. It is also used to assess a company's ethical and sustainable commitment. ESG lends itself to managing digital aspects.

- Environmental refers to the company's environmental responsibilities, including its practices related to waste and pollution, its contribution to climate change and the use of natural resources. It can also consider the way companies respond to environmental issues.
- Social looks at the company's relationships with its workers, suppliers, customers and the communities in which it operates. This can include labor rights, health and safety, diversity, equality and inclusion, human rights and more.
- Governance evaluates how a company is run. This can include aspects such as business ethics, executive salaries, anti-corruption and political lobbying, as well as the rights and interests of stakeholders and shareholders.

Large shareholders such as the BlackRock asset management fund require their holdings and their CEOs to be guided by ESG²⁰. Here one can sense a further development of the formerly purely short-term monetary stakeholder will. The relevant sustainability reporting obligations are also becoming increasingly strict at EU level (EU taxonomy, Non-Financial Reporting Directive, Corporate Sustainability Reporting Directive). In the coming years, more and more organizations will come into their direct or indirect area of application. Directly when the organization is required to report and indirectly through the pressure to provide data to other reporters in the value chain. In the past, CEOs were subject to shareholder value mainly in the form of short-term stock market considerations and medium-term returns on capital, but now they and their auditors are also

¹⁹ <https://fair.work/en/fw/blog/first-fairwork-austria-report-unveils-precarious-conditions-in-the-austrian-platform-economy/>

²⁰ <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

responsible for the accuracy of their sustainability reports. The organization's digital activities and impacts are an integral part of these reports.

Many companies are already fulfilling digital-humanistic goals in their ESG work. A good example is A1 Telekom, which combines a high level of digital activities and goals ²¹ under the umbrella of ESG in accordance with its (digital) product portfolio. To support its ESG ambitions, A1 Telekom has published a study together with ECO Austria and the Fraunhofer Institute Austria that deals systemically with digitization and environmental impact. Direct, indirect and systemic effects of digitization and environmental impact were considered.²²

In 2021, Citibank also summarized the potential of combining digital and ESG:²³ "Digitization is increasingly becoming an important ESG factor. Digital transformation encompasses a wide range of technologies in the digital, physical and biological realms and their application, individually or in combination, to build new markets and businesses, and potentially to address ESG and other socio-economic issues as well. Both digital and ESG initiatives aim to address the changing expectations of stakeholders and the impact of evolving business and operational models on the world and the needs of society."

In order to achieve a stronger digital impact, leading companies and the public sector need to play an intensive and consistent pioneering role in order to establish digital aspects of the ESG , digital and data sovereignty as the basis of digital humanism.

UN Sustainable Development Goals (SDG)

The importance of digital for the realization of the SDGs is high - both in enabling the achievement of goals and in reducing negative impacts. That is why initiatives are being developed that structure the connection between the digital and the SDGs. From Austria, the association respACT – austrian business council for sustainable development worked on measures from 2021 to 2022 under the title DIGI FOR SDG, including ²⁴ best practice directories, events and a guide in the digital-humanistic sense. Here it becomes visible that the traditional concept of corporate social responsibility and the pursuit of the SDGs are brought into line with the digital leverage effects in a contemporary way.

The following SDGs are closely related to Digital Humanism:

Goal 3: Health and Wellbeing – The use of digital technologies in healthcare, known as digital health or eHealth, can make a significant contribution to improving health and wellbeing. It is important to design and use these technologies in a way that respects and supports people, protects their personal data and promotes their autonomy.

Goal 4: Quality education – Digital technologies can be used to increase access to education and enable personalized learning.

Goal 8: Decent work and economic growth - the fair design of digital jobs and the consideration of the interests of employees in the digital economy are key aspects of digital humanism.

Goal 9: Industry, innovation and infrastructure - the promotion of innovation and the provision of infrastructures that enable equitable access to digital technologies are central to digital humanism.

²¹ <https://esg.a1.group/>

²² <https://ecoaustria.ac.at/wp-content/uploads/2021/05/Studie-Digitalisierung- Emissions.pdf>

²³ https://www.citibank.com/tts/articles/assets/docs/2063965_ESG-Article.pdf

²⁴ <https://www.respect.at/portal/de/themen/digitalisierung/digiprojekte/article/7910.html>

Goal 10: Reduced inequalities – Digital technologies can help reduce inequalities if they are designed and used in a fair and inclusive manner.

Goal 16: Peace, justice and strong institutions – respecting privacy and human rights in the digital world is an important aspect of digital humanism.

Goal 17: Partnerships to achieve the goals, strengthen implementation tools and revitalize the global partnership for sustainable development - the partnership between politics/administration, science and business is a cornerstone for the operation of digital-humanistic systems for citizens and customers.

Existing management information systems

Many organizations already have a management information system (MIS) in place, whether it is an integrated system or specifically focused on aspects such as quality, labor or the environment. This system can be used for goal setting, monitoring and optimization of the organization's digital humanistic approach.

Some digital humanistic measures will already be mapped in an MIS. But if, for example, the "ethical use of AI systems" is not yet taken into account in the existing system, a new chapter or goal can be inserted in the MIS that deals specifically with this topic. For this purpose, guidelines and processes can be defined, for example according to the IEEE 7000 standard. Likewise, the audit plan can be expanded to verify compliance with these new goals and encourage continuous improvement. Through these adjustments to the MIS, the commitment to digital humanism can be reflected in all aspects of doing business.

Triple Bottom Line Model: People , Planet, Profit

In 1994, with the Triple Bottom Line Model, Elkington postulated ²⁵the need for companies to move away from purely financial goals and instead take responsibility for the environment, society and sustainable economic activity (People, Planet, Profit). Over the past three decades, this principle of People, Planet, Profit has acted as a guiding principle for many companies that are aware of their holistic responsibility. However, Elkington observed many instances where the focus on the environment and people was subordinated to financial goals. This led to his " recall " ²⁶of his model. In the new interpretation, " People, Planet, Profit " refers to the mutual dependency and interaction between the areas of business, society and the environment, which are no longer mutually exclusive, but only contribute to comprehensive value creation in symbiosis. Elkington names successful initiatives and companies in 2018: " B-Corp " certified companies, but also Novo Nordisk, Unilever and Covestro. Today, the B-Corp Community has rated over 7,000 companies in over 90 countries.²⁷

"I hope that in another 25 years we can look back and indicate that the moment began to work towards a Triple Helix for value creation, a genetic code for tomorrow's capitalism, driving the regeneration of our economy, society and biosphere." John Elkington²⁸

The regeneration addressed by Elkington should always be paired with sustainability: while ecological sustainability essentially aims to maintain the current state and minimize damage, ecological regeneration aims to heal ecosystems and restore them to a more vibrant and to get into a healthier state. Regeneration goes beyond preserving what we have; it seeks to reverse environmental degradation and actively improve the state of the natural world. Both concepts are critical to the long-term health and well-being of our planet and can complement each other in creating a more sustainable and regenerative future. Through the use of digital technologies, ecological regeneration efforts can benefit from improved data-driven decision-making, enhanced monitoring and assessment, greater public involvement, and more efficient and effective restoration strategies. For this guide, too, this is the comprehensive perspective on the "Planet" design field from a digital point of view.

Our project partner, the company Goodshares ²⁹, has been investing and advising for many years under the premise of People, Planet, Profit, originally with a primary focus on ecological aspects. While evaluating potential investments and advising companies, Goodshares recognized the need to add a digital perspective to their model. The increasing digitization of our society requires the information in this management guide presented methodological approach to support companies in effectively aligning themselves with the Triple Bottom Line Model, also from a digital-humanistic point of view. This was the trigger for the WU Executive Academy and Martin Giesswein to support this further development, the project is funded by the Vienna Business Agency. This management

²⁵Elkington, J. (1994). Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development. California Management Review, 36, 90-100

²⁶ <https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it>

²⁷ http://www.bcorporation.net/en-us/?_ga=2.125202818.985474925.1687353622-849065927.1687353621

²⁸ <https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it>

²⁹ <https://goodshares.at/>

guide uses the easy-to-remember phrase " People, Planet, Profit " in its modern form, especially to simplify communication in organizations.

Other international initiatives

The international organization for social entrepreneurship "Ashoka" is also dedicated to digital humanism under the title " Tech and Humanity " in order to analyze, address and optimize the effects of digitization on global society. Together with ³⁰Google 's philanthropic arm, they are publishing a report on the topic. A number of projects are running in the " Tech and Humanity Impact Lab " and in the " Sustainable Computing Lab " of the business university.

At the international level, AI for Good is ³¹a digital-humanist initiative: AI for Good drives technological solutions that measure and advance the Sustainable Development Goals of the United Nations. The organization creates impact by bringing together a broad network of interdisciplinary researchers, nonprofits, governments and businesses to identify, prototype and scale solutions that drive positive change. Founded in 2015 by a team of machine learning and social science researchers in the US and Europe, AI for Good is headquartered in Berkeley, California, where an international network of core team members, partners, and volunteers support their work.

3.2. Characteristics in public administration, science and education

City vienna

Based on preliminary work and a study^{32 33}of the Vienna Science and Technology Fund and the University of Vienna on behalf of Municipal Department 23, the City of Vienna has defined digital humanism as the central leitmotif of all digitization projects. This strategic orientation is reflected in the government program ³⁴, the digital agenda (to be renewed in 2023) and in the digital measures of the City of Vienna. The coordination of digital humanism in Vienna is the responsibility of Veronica Kaup-Hasler, the executive city councilor for culture and science, and in the municipal administration of Franz Oberndorfer, department head for science, research and business location.

The Vienna Science and Technology Fund and the Vienna Business Agency support projects to implement the theory of digital humanism in practice and science. This management guide is part of one such project funded by the Vienna Business Agency. The current funding scheme is called " Tech4People ". More and more of the city's digital projects are taking into account value-based engineering (" VBE " for short), since Wiener Stadtwerke successfully collaborated with the IEEE standardization institute in 2021 to optimize customer interaction processes digitally and humanistically.³⁵

CC4DR

³⁰ <https://www.next-now.org/tech-humanity/impact-lab>

³¹ <https://ai4good.org/>

³² Mayer, K. et al. (2019). Actors, instruments and topics for a digital humanism initiative in Vienna

³³ <https://www.wien.gv.at/wirtschaft/standort/digital-humanism.html>

³⁴ <https://www.wien.gv.at/regierungsvertrag2020/>

³⁵ https://www.ots.at/presseaussendung/OTS_20211115_OTS0071

The Cities Coalition for Digital Rights³⁶, which was launched in November 2018 by the cities of Amsterdam, Barcelona and New York and which now includes more than 50 cities worldwide, including Vienna, is a network of cities. These support each other in policy-making in the field of digital rights. The coalition works to promote and protect digital rights in the urban context through urban actions to address shared digital challenges and works on legal, ethical and operational frameworks to promote human rights in the spirit of Digital Humanism.

First "School for Digital Humanism"

The reform pedagogical Oberstufenrealgymnasium Steyr runs regular training for young people with a focus on digital humanism on the premises of the Linzer Tabakfabrik.³⁷ The school offers both values for personal development and special subjects for technology and arts in the advanced STEM subjects. The basis is an integrative approach that promotes a constructive and critical examination of digitization.

Chair at the Vienna University of Technology (TU)

With effect from May 2023, the UNESCO Chair for Digital Humanism was inaugurated at the Faculty of Computer Science at the Vienna University of Technology together with federal ministries and the City of Vienna. The chair will focus on the ethical, social and political impact of digital technologies.³⁸

4. The EU and Digital Humanism

Many of the EU's actions can be seen in the light of Digital Humanism - from the legal procedures against large digital companies and the sanctioning of abuses of market power, to the General Data Protection Regulation 2018, the Digital Services Act and the Digital Markets Act, the Data Act, the Data Governance Act to the ongoing finalization of the Artificial Intelligence Act. These regulatory activities reflect the tension between the short-term, purely monetary interests of market participants and the long-term political shaping of a fair digital society in Europe.

The "Declaration on European digital rights and principles"³⁹ from December 2022 summarizes the EU's efforts in this field. The declaration demonstrates the EU's commitment to a safe and sustainable digital transformation that is people-centred and in line with EU fundamental values and fundamental rights. The declaration aims to show citizens that European values and the rights and freedoms enshrined in the EU legal framework must be respected both online and offline. The text is divided into six chapters and is intended to serve as a guide for policy makers and companies dealing with new technologies:

1. Putting people at the center of digital change
2. Promoting solidarity and inclusion through connectivity, digital education, training and skills, fair and equitable working conditions and access to digital public services

³⁶ <https://citiesfordigitalrights.org/>

³⁷ <https://tabakfabrik-linz.at/2021/09/erste-schule-fuer-digitalen-humanismus-rose-moves-into-the-tabakfabrik/>

³⁸ <https://www.tuwien.at/tu-wien/aktuelles/news/news/unesco-leiht-chair-fuer-digitalen-humanismus-an-tu-wien>

³⁹ <https://digital-strategy.ec.europa.eu/de/library/declaration-european-digital-rights-and-principles>

3. Reaffirming the importance of freedom of choice and a fair digital environment.
4. Promoting participation in the digital public space
5. Increasing security and self-confidence in the digital environment, especially for young people
6. promoting sustainability

The next legal implementations of the principles of digital humanism will be found in the already mentioned EU AI Act. At the time this management guide was created, the final version had not yet been adopted. In any case, it is a regulation, i.e. directly applicable law in the member states. The drafts ⁴⁰read as an area of application "the placing on the market, commissioning and use of AI systems". This could affect any company that uses an AI co-pilot application from an international software provider, for example. Similar to the General Data Protection Regulation, all companies should deal with compliance with the AI Act. It makes sense to plan time and costs for considering the future AI Act in upcoming digital projects. The organization should assess whether the third party systems covered by the AI Act will have certification commensurate with the classification.

The AI Act distinguishes four risk levels, each with different obligations for the organization using it. AI systems that pose an "unacceptable risk" within the meaning of the regulation (i.e. a clear threat to the safety, livelihood and rights of individuals) will be banned. In addition, the categories "high-risk AI systems", "low-risk AI systems" and "minimal-risk AI systems" are to be introduced. High-risk AI systems include AI systems that are intended to fulfill a security function, are used in the judiciary or are intended to process particularly sensitive personal data. They have high requirements for certification as part of a conformity assessment, as well as for transparency and human supervision. Less stringent requirements already apply to medium-risk AI systems. For example, they are subject to a special labeling requirement. With the IEEE 7000 standard described, there is a relevant procedure that has been tested, recommended and also certified by the EU Commission, with which organizations can already plan or change their digital systems today, taking into account all ethical aspects for the stakeholders.

Seven central requirements of the AI Act are an expression of a digital-humanistic understanding:

1. Priority of human action and human supervision
2. Technical robustness and security
3. Privacy and data quality management
4. transparency
5. Diversity, non-discrimination and fairness
6. Social and environmental well-being
7. accountability

The states and all European institutions are part of this regulation. In order to be effective for the digital-humanistic goals, these regulations are needed, but also clever implementation and a digital-humanistic awareness in society.

5. Organizational focus on digital humanism

An easily communicable formula of digital humanism are the design fields " **People, Planet, Profit** " to make the interweaving of social, ecological and economic digital fields clear for all stakeholders. " People " includes people in all their roles (e.g. consumer, citizen, employee) as well

⁴⁰ <https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:52021PC0206>

as the digital society. " Planet " represents the environment, ecological sustainability and regeneration that can be promoted or harmed by the digital. The term " profit " stands for holistic profitability that uses all the economic opportunities of digital transformation for our organizations and at the same time supports the other two areas (people and planet). This guide uses the structure of these three digital design fields.

In each of the three design fields, there are reasons for decision-makers and managers to align their organization with digital-humanistic principles. These reasons are the business explanation and the basis of communication when setting strategic, tactical or operational measures in the direction of digital humanism. The list is exemplary, not exhaustive, and is intended to provide inspiration for personal lines of argument.

Personal ethical approach:

1. Personal conviction of the decision-maker. If owners and managers represent the principles of digital humanism out of personal conviction, they look for ways to implement these ideals in or with their organization. An example of this is Patagonia, an ⁴¹outdoor clothing and gear company . Founder Yvon Chouinard has changed its corporate purpose and made the company aim to promote environmental protection and social commitment.

Approaches that can also be explained in traditional monetary terms:

" People "

2. Attractive employer, purpose, talent: In times of a shortage of skilled workers, especially for digital talent, acting as a digital-humanistic organization can make recruiting more attractive . For employees, actions can become more meaningful if the entire organization actively and honestly follows these goals.
3. Long-term profit and survival: The interweaving of people, planet and profit can have a positive impact on an organization's resilience and longevity. Sustainable connection with employees, customers and site managers make it easier to solve crises and keep organizations profitable in the long term. A scientific analysis in 2022 shows that there will be a tenfold increase in attention to technology risks if value-based engineering with IEEE 7000 is used.⁴²
4. Competitive advantage through higher customer demand: Only two decades ago, there was hardly any organic food in supermarkets. Today there is a high demand from customers for organically produced food (19% of the sales value of own brands according to the Sustainability Report 2021 ⁴³, REWE Germany). Analogously, it could be a competitive advantage to be increasingly attractive for customer groups who do not want to use any digital systems through sustainable, digital-humanistic action. The fear of data misuse or the exploitation of personal digital dependency for commercial purposes can increasingly speak for digitalhuman-certified companies and their products in the future.
5. Competitive advantage through higher user participation: The implementation methods of digital humanism (e.g. IEEE 7000 and the digital impact method of this management guide) require a high level of participation by subsequent users and customers. Increased

⁴¹ <https://eu.patagonia.com/at/de/business-unusual/>

⁴²Bednar, Kathrin, and Sarah Spiekermann. 2022. "Eliciting Values for Technology Design with Moral Philosophy: An Empirical Exploration of Effects and Shortcomings." Science, Technology, & Human Values

⁴³ <https://rewe-group-nachhaltigkeitsbericht.de/2022/de/>

co-creation of later customers can lead to a better product- market fit and thus to greater long-term success for the company. A scientific analysis in 2023 shows that creativity in service design will triple when stakeholders go through value -based engineering with IEEE 7000.⁴⁴

6. At the interface between the " People " area and the " Planet " area, reference should be made to the will of the shareholders described above with regard to ESG. Organizations that lack diversity, social responsibility or ecological orientation find it difficult to invest on the capital market. The digital components will increasingly have to be taken into account in ESG activities.

" planet "

7. Contribution to solving ecological challenges: Digital systems can help to meet climate targets and avert negative effects on the environment.
8. Investments in green tech: Many companies see investments in their own or used green tech products as ecologically necessary and subsequently as profitable (also in monetary terms).
9. Energy and resource consumption: When organizations use digital systems and hardware, they consume electricity, rare earths, and generate CO₂ and e-waste, for example. Organizations can achieve a major impact in the sense of digital humanism with green IT activities (green electricity data centers and waste heat use in data centers, longer use or recycling of computers and smartphones).

" profit "

10. Brand and reputation of an organization: In addition to the above-mentioned advantages relating to customer loyalty, the economic view is also about the brand value and the overall reputation of a company and its representatives. Pursuing digital-humanist goals can be an advantage, but only if greenwashing (or what the authors call humanismwashing in this context) is ruled out. Recommendations for identifying measures that tend towards humanism washing are part of the digital impact method presented below.
11. EU legal framework: As described above, the EU legal framework will bring further obligations to provide evidence for the digital systems used. Measured by the expenses related to the implementation of the General Data Protection Regulation after 2018, it is economically advisable to deal with ethical questions of the digital systems used at an early stage.
12. If states, cities and large companies are increasingly committed to digital humanism, one can assume new procurement rules. There is the possibility that in the future in purchasing situations, the supplier companies of products with ethical and digital humanistic proofs will be preferred. This is based on the priority of a digital-humanistic best bidder principle over a monetary cheapest bidder principle.

⁴⁴Bednar, Kathrin, and Sarah Spiekermann. 2023 (forthcoming): "The power of ethics: Uncovering technology risks and positive value potentials in IT innovation planning", Business informatics and system engineering (BISE)

If an organization creates a guideline according to the digital impact method, this can also serve the following organizational **purposes, for example:**

1. Ad hoc review and reporting to the supervisory board, owners or authorities
2. Input for annual report
3. Input for sustainability report
4. Targets for motivational systems and variable salary components
5. Participation in awards
6. Use in recruiting
7. Use in internal purpose and strategy communication
8. Moderate marketing and media use after the material performance of the measures
9. Exemplary effect for other organizations

Goodshares' many years of experience in the field of ecological sustainability, processes and permanent operating procedures must always be given priority over selective projects or individual initiatives when applied to the promotion of digital humanism. The anchoring of digital humanism in operational processes increases the chance of developing a corresponding DNA and mindset for everyone involved and thus promoting a digital humanistic culture.

6. Management definition of digital humanism

Based on the above, Digital Humanism define it from an economic point of view as follows:

Digital humanism describes the approach of an organization that ensures in the long term and honestly that the digital systems it creates or uses generate the most positive possible overall effect on all individual stakeholders and do not violate any values. The profitability (profit) is closely and unconditionally related to the effects on society (people) and ecology (planet).

7. Affected Organizations

Every organization has a digital impact. This means the positive and negative effects of the digital activities of an organization on the stakeholders from the point of view of digital humanism. The potential strength of the digital impact (positive and negative effects) of an organization determines its digital concern and responsibility. When assessing responsibility, this is divided into the following four groups of participants along the digital value chain (which is also laid out in a similar way in relevant European laws such as the General Data Protection Regulation):

Group 1

Digital provider : Companies that create digital systems (software, cloud systems, hardware for digital systems) or operate their own digital platforms. Examples are Alphabet as the mother of Google products, Samsung, Amazon, Meta, Microsoft, SAP, Oracle , Lieferando, Uber. This also includes smaller companies and start-ups whose main business is the production of digital systems (programming companies, technology start-ups). Digital providers also provide direct services to Groups 3 and 4, potentially increasing their responsibility.

group 2

Digital service providers (e.g. ICT service providers, system designers, digital agencies, IT project management companies, digital consultants): These organizations configure existing

digital systems from group 1 and adapt them to the needs of the using organization (group 3). They connect them to other actions (data center operation, use in a marketing campaign, and the like). If additional software is generated, the digital service provider would also be in the role of a digital provider.

group 3

Organization using digital systems: Entities such as a supermarket chain, a ministry or a transport company have a non-digital main business object: They produce the food supply, manage part of the state tasks or transport people and goods. Nevertheless, they have a high digital impact on society because they use digital systems provided by Groups 1 and 2: for example for staff management, for operating data mining based on customer loyalty systems, for the digital administration of tax payments or for delivery of mobility services such as digital ticket sales or algorithmic route planning.

group 4

End consumers: The beneficiaries of the goods and services offered in the previous categories have a high digital-humanistic responsibility as citizens or customers. In digital market segments with sufficient competition, they decide whether to use the photo cloud system from provider A or B from group 1. You decide which mobility provider or which services from another company from Group 3 you want to use.

Circular digital society

The organizations that dispose of or reuse digital hardware components are not listed here as a separate group of digital value creation. Instead, all four groups are responsible for conserving resources, extending the use and recycling of digital hardware components. In the spirit of digital humanism, digital providers should, for example, bring systems onto the market without a programmed reduction in service life, digital service providers must design systems for energy-saving operation and application companies have great leverage, for example when it comes to the longer use of employees' notebooks and smartphones. End consumers are closely integrated into the circular society, in particular through their digital purchase, rental (use - don't - own) and disposal decisions. In more detail, reference should be made to the "10 Ps"⁴⁵ of the circular economy in Appendix 1 under "Planet".

An organization can also belong to several groups. For example, a bank (group 3) has a programmer unit that creates the online banking application (group 1).

Digital application companies (Group 3) often use turnkey IT solutions for reasons of cost and time. A digital-humanist demand is to use one's own purchasing power to check the standard software for value-based requirements and have it adapted accordingly by the digital service provider (group 2).

This value chain consideration shows that responsibility for the implementation of digital humanism cannot be attributed to one group alone. The penetration of our life and economic areas with the digital requires a commitment in all groups of the value chain. Digital humanism therefore needs empowered consumers and courageous leaders.

How big the digital impact and thus the digital responsibility of an organization is depends less on the group affiliation in the value chain. Rather, the number of those affected (stakeholders) and the depth of digital impact of the organization are decisive. To put it another way: How many

⁴⁵PBL Netherlands Environmental Assessment Agency (2017). J Potting, M Hekkert, E Worrell, A Hanemaaijer: Circular Economy: Measuring innovation in product chains. The Hague.

people are affected by the use of its digital systems in an organization and how strong is their impact on their lives, economies or the environment?

Consequently, it is not decisive for digital responsibility whether it is a commercially oriented company or a non-profit organization, a research institution or an administrative unit. For example, the administrative unit of a municipality that is responsible for the digital citizen services of a megacity will have a higher digital impact than a young, commercially oriented start-up with 1,000 users in a niche application.

However, the group differentiation is a necessary prerequisite for the selection of the correct method variant, as described below.

8. The digital impact method

The aim of the management guide "Digital Humanism" is to analyze, promote and document the digital impact and possible measures to support the digital humanistic goals for decision-makers in an organization.

The method is to be used voluntarily, it is a self-commitment. The method should be adapted and used for all organizations in such a way that it corresponds to the corporate culture. In previous applications, there were always deviations from the standard procedure presented here. The individual approach should be documented and communicated transparently.

The method encourages an honest and ambitious assessment by the core team of the digital humanistic state and the corresponding actions of the organization and is therefore an approximation to the digital humanistic goals. A perfect situation, especially on the first pass, is difficult to create. In the experience of the authors, organizations that initially define a few measures but follow them very consistently often tend to make a greater digital-humanistic contribution than organizations that set themselves goals that are too high and then fail to achieve them.

In the following we describe the method for group 3 (organization using digital systems) as standard procedure. Variants for group 1 (digital provider) and group 2 (digital service provider) are listed for each method step.

core team

As a core team, we recommend a group of people representing all departments and functions of the organization using the digital systems. The entire workforce of the organization is subsequently involved with participation and interactions.

The core team (group 3: application companies) ideally consists of representatives of the following or corresponding areas who have equal rights in dialogue: management, HR, marketing, IT, sales, production, customer service , ESG, CSR , legal and strategy departments. Critically arguing people, customer representatives, constructive employee representatives and people with experience in discussing values can further increase the quality of the core team.

Variant for group 1 (digital provider):

The core team ideally consists of management, marketing, development, sales, operations, customer service as well as ESG, CSR , legal and strategy departments. Since the digital services are usually provided as standard without direct contact with the end customer or indirectly via the digital service provider with the organization using them, representatives of these two groups must be included in the core team. Furthermore, digital providers often work internationally with supervising or sounding boards , which can represent the voices of future users.

Variant for group 2 (digital service providers):

The core team ideally consists of representatives of the following or corresponding areas: Management of the using organization (= customer), their HR, their marketing, their IT, their specialist departments affected by the scope of services, their ESG, CSR, legal and strategy departments. On the part of the digital service provider: the project team, the supervisor of the application company, people trained in ethics/digital humanism, ideally IEEE 7000 consultants.

Timeline, effort and duration of the digital impact method

The effort that arises for the organization is individual. Based on the previous tests (test cases), one can reckon with two months (throughput time) for the method steps and at least three man-days per core team member. For the following reviews, an additional man-day is to be estimated.

During this period, the following method steps are carried out:

- 1) Common understanding
- 2) Analysis and stakeholder map
- 3) measure definition
- 4) Prioritizing and avoiding " humanism washing "
- 5) guideline formulation
- 6) Review and ongoing deepening

8.1. Methods steps

8.1.1. Common understanding

1. The first part is the necessary development for a digital-humanistic basic understanding in the organization, especially for the core team. It is recommended to carry out further training with the available materials on digital humanism (literature of this management guide, brochure from the City of Vienna ⁴⁶, YouTube channel Digital Humanism ⁴⁷, CDR code et al.). The WU Executive Academy offers appropriate formats with a focus on preparing the core team. Special value-based engineering training courses are available for a deeper insight into questions of ethics, values and IT measures that can be derived directly from them.
2. Ongoing communication during the creation of the guideline on digital humanism ensures the necessary transparency towards the entire workforce. All employees are informed about the goal and the status of the creation project and can get involved in easily accessible ways.

Variant for group 1 (digital provider):

Digital providers should permanently support all responsible persons in the organization in their value-based and digital-humanistic basic understanding. A separate specialist organization (e.g. CDR team) accompanies and helps with the ongoing creation of digital systems.

Variant for group 2 (digital service providers):

⁴⁶ <https://www.wien.gv.at/forschung/wissenschaft/digitaler-humanismus-broschuere.html>

⁴⁷ <https://www.youtube.com/@DigitalHumanism>

Similar to the ongoing further training of the employees of a digital service provider in project management or value-add-sales methods, value-based engineering training is required, especially for those parts of the workforce who work with customers.

8.1.2. System overview and stakeholder map

1. Overview of the digital system landscape: There is a list of all digital systems used in the organization and all third-party systems used and their data flows with which stakeholders can be directly and indirectly affected. An example is an online shop system as the digital system used. The integrated third-party payment systems such as PayPal, Klarna and credit card processing must also be listed. Third-party systems can influence (hurt or promote) the values of stakeholders just as much as your own system.
The list is the basis of the possible digital impact of the organization.
2. A person responsible for IT in the organization explains the digital system landscape.
3. The core team creates a simple stakeholder map (for example: a restaurant with an online ordering system and connection to a delivery platform, stakeholders , owner , tenant, waiter, cook, cleaning staff, guests in the bar, guests at home, neighbors, passers-by in front of the bar, approving officials, delivery platform operators, suppliers, citizens of the city in which the suppliers are on the move ...). The stakeholder map is a graphic with several concentric circles, the stakeholders are listed depending on the closer relationship to the organization. The stakeholder map can be used by digital providers, service providers and application companies without modification. Your own organization is in the middle and you analyze which stakeholders are affected by your digital impact. If the core team does not include stakeholders, direct stakeholder involvement is necessary. A diverse focus group can correct and expand the stakeholder map. According to the experience of the authors, blind spots in the organization are often uncovered and the indirect digital impact identified.
4. **Result:** System landscape and stakeholder map are available. The basis for the subsequent definition of the guideline has been laid.

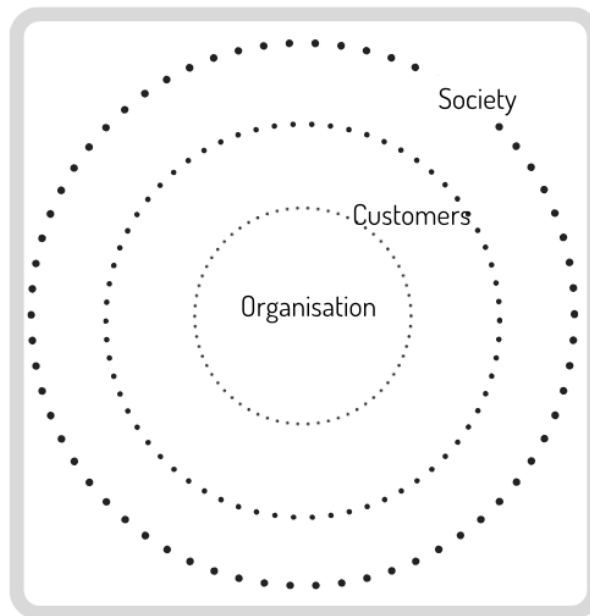


Fig. 2: Own illustration: Stakeholders map : CC BY-NC-SA 4.0 MartinGiesswein.com, GOODSHARES, WU Executive Academy

Variant for group 1 (digital provider):

The digital provider should have a constant overview of all its products and services, which are continuously checked for their digital impact in the next step of the method. If a new system is created, this is recorded in an overview and the dependency with existing and any new third-party systems is recorded. The stakeholder map tends to be more abstract, but wider. All customers who may be affected by the system according to the purpose of use and also in the event of misuse (e.g. cyber attack) should be listed. The stakeholder map also extends to competition (crowding out other providers) and, for example, the EU as a body with regulatory activities .

Variant for group 2 (digital service providers):

The digital service provider (unless it uses the method for its own inward-facing systems) creates an overview of the customer's system landscape with the customer, or at least helps with the parts of the landscape where the service provider works. The service provider works together with the customer's IT to create clarity for the customer's core team on the system landscape and the stakeholder map.

8.1.3. Measure definition

1. The core team members individually go through the inspirational themes and questionnaires (Appendix 1). Existing and new measures that can promote the digital-humanistic goals are identified.
To clarify: Since there can be a wide variety of meanings and specifications for "measures" in organizations, this term is understood here as broadly as possible: A measure can be a project, the introduction or optimization of a process, a product or service generation, an information campaign or an initiative.

- The core team views and clusters the identified measures from the catalog of questions in the organization's " Digital Impact Canvas ". The canvas is a matrix consisting of two columns ("Challenges" and "Opportunities") and three rows (" People ", " Planet ", and " Profit ").



Fig. 3: Own representation: Digital Impact Canvas: CC BY-NC-SA 4.0 MartinGiesswein.com, GOODSHARES, WU Executive Academy

- The workforce is invited to information and participation. The preliminary Digital Impact Canvas is explained. The employees bring in their additions and changes. They propose further measures. Representatives of the workforce who want to work on individual measures are identified. Depending on the size and culture of the organization, all these steps take the form of an overall meeting (online or offline), departmental workshops or asynchronous participation (explanatory videos and individual, anonymous surveys).
- Result:** All previous measures of the last two years are known and all possible ones for the immediate future are defined. An overview of the current digital impact of the organization has been created. In particular, measures aimed at the creation, optimization and operation of a digital system should then be initiated and carried out with value-based engineering (IEEE 7000), as presented above. With its value orientation and inclusion of all stakeholders, the standard offers the basis for generating systems according to the principles of digital humanism.

Variants for digital providers:

In addition to the pure creation of new digital systems, many providers also carry out accompanying measures. Large providers in particular act with political representatives, participate in campaigns to increase digital competence in the education system or provide training for small companies. Exactly these measures are to be recorded here, entered in the canvas and discussed very closely with the external shareholder representatives in the core team. In addition to global

programs from international providers, each local branch should become active in terms of this method step and categorize measures in its own sphere of influence.

In this step in particular, due to the proximity of the core business object to the digital-humanistic measure, special attention must be paid to sorting out humanism washing measures in the next method step.

Variant for digital service providers:

The digital service provider (unless they use the method for their own inward-facing systems) creates the canvas with the customer, or at least assists with the parts of the canvas where they work as a service provider.

8.1.4. Prioritization, avoidance of “humanism washing”

1. Sorting out measures with a high proportion of “humanism washing”: The term greenwashing is familiar from the ecological sustainability discussion: Organizations pretend to take ecological measures, but do so mainly or only superficially in order to have a positive effect on public perception. Even when pursuing digital-humanistic goals, there is a risk that companies will not aim for the effective positive effect, but mainly for the reputation and marketing effect. In this method part, the core team therefore makes an honest assessment of the effective positive effect of the measures for the stakeholders in comparison to the increase in brand value or the reputation of the organization towards the outside world. In particular, the expenses of the organization are compared: the expenses for pure communication of the measure and, on the other hand, the expenses for the measure itself in its operational implementation and its ongoing operation. Measures with a disproportion between the expenses and effects or between appearance and reality are not dealt with further.
2. The core team evaluates the remaining measures using the priority matrix. This is a cross chart with the following design criteria:

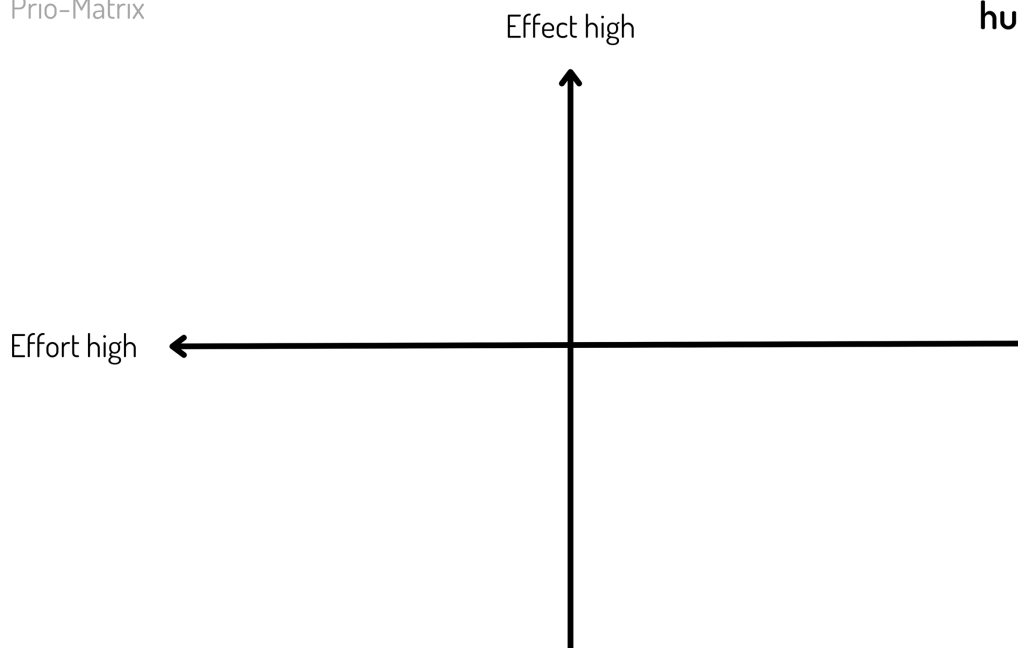


Fig. 4: Own illustration: Priority matrix: CC BY-NC-SA 4.0 MartinGiesswein.com, GOODSHARES, WU Executive Academy

1. Vertical axis: Effective positive effect of the measure internally and externally on all stakeholders in terms of the digital-humanistic goals. The evaluation is not directly monetary, but material (people, planet, profit) and in relation to the other proposed measures. Let's take a global transport company, for example: The measure "Digital optimization of global logistics through data analysis for CO₂ reduction" potentially has a materially higher positive effect than the measure "Extension of the use time of employee cell phones by one year".
2. Horizontal axis: Monetary effort for the organization to implement this measure. The effort is evaluated in material costs and personnel costs. The costs of initialization and ongoing operating costs must be added. It is recommended to assume a term of, for example, two years for all measures in order to establish comparability.
3. The measures that are in the quadrant "low effort" and "high positive effect" (A) are suitable for continuation or initial implementation. However, the effective measures with a great deal of effort (B) are also exciting. Organizations using this management guide for the first time could start with measures from (A) and in the following years, with more experience and greater willingness to invest, dare to approach the measures from (B).
4. The remaining measures are described with targets that are as concrete and quantifiable as possible and with expected values that are as qualitatively precise as possible in order to be able to check their actual effect and adjust it if necessary. Examples of such goals are: reduction in the number of new devices (e.g. company notebooks) in a period, amount of heat recovered from the data center, reduction in returns from an online shop , ranking in the Fair Report for platform operators, change in the B-

Company indicators , expected reduction of specific value risks, expected increase in value on the customer side.

5. **Result:** The measures are prioritized in the tension between their material effect and their monetary effort. Measures that are not prioritized are saved for a later further run of the method (measures backlog).

Variant for digital providers :

The provider creates the prioritization of his measures in a similar way to an organization using them, but with regard to the effect on all potential customers and end consumers as well as the stakeholders who are not in direct contact. For example, Microsoft will now prioritize all measures identified in the previous method step relating to the LinkedIn platform. The effect on current and future users, LinkedIn 's B2B customers and other stakeholders (e.g. those responsible for the further education system, state labor market managers, recruiting agencies) is described and entered in the priority matrix .

Variant for digital service providers:

The digital service provider creates the customer's priority matrix with the customer or at least helps with the parts where he can have influence and responsibility as a service provider.

8.1.5. Guideline formulation

1. The core team summarizes all results in one document. Depending on the culture of the company, this document can be called, for example, "Digital Humanism Roadmap ", " Digital Impact Strategy" or "Guideline".
2. A second round of participation with the workforce brings further input and later acceptance of the guideline. The repeated involvement of external stakeholders can increase the quality of the guideline through verifications and additions.
3. The measures of the guideline either flow into existing initiatives (such as ESG or CDR/CSR) or are published and implemented independently within the organization.
4. The guideline should have a maximum length of two A4 pages. This promotes precision in the statement and ensures that the document is actually read. Other communication formats such as videos, podcasts or workshops on the guideline are useful.
5. The guideline has at least the following information (principles):

- I. *For us, digital humanism means...*
- II. *We see our greatest responsibility and our significant digital impact in the areas ... with the following stakeholders ...*
- III. *If we don't take responsibility for our digital impact, then... (deepening reverse conclusion at the strategic level of the organization, possibly with societal implications)*
- IV. *The actions we will take in {period} are...*
- V. *If we do not take these measures, then ... (detailed reverse conclusion at the operational level of the individual measures)*
- VI. *We do it as follows ... (per measure: description of the procedure, objectives, expected values, responsible person, period, budget, participation options) with the following*

partners in the industry, value chain, stakeholders : ...

VII. *We review this guideline on an ongoing basis. The next review day is: {date}*

VIII. *We communicate this continuously ... (internally, externally, how, when)*

Point VI (Partnerships) refers to SDG 17 ⁴⁸: "Partnerships for the Goals: Strengthen the means of implementation and revitalize the global partnership for sustainable development."

As discussed, many measures of digital humanism will already be underway in the organization or will arise from other strategic or operational initiatives. Here, too, the guideline has the task of summarizing the measures with a digital impact from different areas and presenting them for the entire company. This fulfills a self-imposed digital-humanistic reporting obligation.

The measures are not implemented by the core team, but by the organizational area most affected, by the team with the greatest expertise or by the responsible department. The core team should have the portfolio of all measures and the guidelines with their annual reviews , for example manage .

Variant for digital providers :

No variant necessary

Variant for digital service providers:

The digital service provider supports customers in creating their guidelines or creates their own guidelines with regard to their typical customers. In the second case, guiding principle 2 from above is:

our greatest responsibility and our significant digital impact, **which we** exert ourselves and with our customers, in the areas ... with the following stakeholders : ...

8.1.6. Review and ongoing deepening

The core team determines the time of the review in the guideline. Before the review, the current status of the measures and their key figures are queried. The core team analyzes the status, identifies optimization measures and invites the workforce to propose new measures. Up to two review points per year are recommended because the management guide is a tactical method that is used throughout the year. The second review point thus coincides with the main planning time of the organization's financial year. This results in synergies with budgeting and other reporting. The more practiced an organization becomes over the years, the easier and more effective the implementation of the guideline becomes. Thus, over time, more measures can be implemented or optimized per fiscal year. It is not necessary to come up with new ideas and go through all the method steps every year. It is recommended to create a list of measures that have already been proposed but have not been prioritized (measures backlog).

⁴⁸ <https://www.bmz.de/de/agenda-2030/sdg-17>

9. About this management guide

The management guide "Digital Humanism" and the Digital Impact Method is an approach to digital humanism for organizations. It is not a universal digital-humanistic model of society. The understanding presented here is anthropocentric: people and their environment are the focus. But the responsibility is greater and efforts must be stepped up.

Thun-Hohenstein sums up the task of the organizations as follows: "The imperative of the 21st century is therefore: We must combine comprehensive respect for human dignity with holistic respect for the earth and its resources and humility towards nature and its flora and fauna. By linking these two approaches, we are making a clear choice for a low-emission and resource-light economic and living culture. With this directional decision, we are also creating the best conditions for genuine resilience in business and society. This imperative of the 21st century is also the key to a sustainable understanding of digital humanism."⁴⁹

If your organization is active in the digital-humanistic field, the authors would be very happy to receive information at info@humanism.digital. We are constantly working on overviews and communication on the topic and your example is an important contribution.

Science and Society Board

The management guide "Digital Humanism" was edited by the following experts:

- Wolfgang Lalouschek, neurologist
- Helmut Leopold, AIT Austrian Institute of Technology, Head of Center for Digital Safety & Security
- Franz Oberndorfer, City of Vienna
- Marie Ringler, Ashoka, European Forum Alpbach
- Alice Schmidt, Global Sustainability Adviser, WU
- Sarah Spiekermann-Hoff, WU
- Christoph Thun-Hohenstein, BMEIA
- Hannes Werthner, TU, emeritus

Examples and tests (test cases)

management guide was used or discussed with the following organisations :

WU Executive Academy: The educational organization with around 70 employees and 2,500 executive students per year created its own "Digital Humanism Roadmap " using the method described here.

Goodshares: The project partner contributed years of (non-digital) experience in consulting for sustainability according to the People Planet Profit model and played a key role in developing the guide. She created her own roadmap.

msg Plaut: The Austrian digital service provider is working on implementing digital humanism for the entire company. The initiative came from the management and has been coordinated with the owners. After the managers, the employees were involved in an overall event. The publication of a book on the subject of digital humanism is being prepared. The next phase is about implementing the principles and values in day-to-day work. Training according to IEEE 7000 is being sought and a pilot project has been identified in which the use of the standard will be tested.

⁴⁹Christoph Thun-Hohenstein, Yearbook of Austrian Culture Abroad 2021, 21-37

Austria Press Agency is a leading digital humanist company by creating its own AI guideline for internal use according to the goals of digital humanism and the principles of the upcoming EU AI Act.

The Sparkasse Pöllau is owned by the Sparkasse Pöllau private foundation, which is geared towards the common good, and is working intensively on a region in the Pöllauer valley that is suitable for grandchildren. In addition to a nearby farmer's shop, it operates a biomass power plant to generate heat and electricity. It has a subsidiary that develops digital solutions for companies and networks the region with its Pöllauer Valley app. The sustainability efforts are supplemented by an academy for sustainability - an ISO-certified training provider - as well as by the planned bee experience world as an awareness-raising facility. In recent years, a separate, value-oriented organizational ecosystem has been consistently built up.

Feedback

For feedback, please email info@humanism.digital.

for this guide are: DeepL Translator, DeepL Write, ChatGPT, Wikipedia, all with human verification.

10. Appendix 1: Inspirational Themes

Especially during the first iteration of the digital impact method, both core team members and the workforce can encounter challenges when it comes to checking their products, services and processes for digital impact. In their work with various organizations, the authors have identified a wealth of concrete effects and derived measures. The listing of these results could lead to a mechanical processing of the method without going into depth and gaining organization-specific insights. This could increase the risk of so-called "humanism washing".

To counteract this dilemma, this guide presents a table of value-based aspects of digital impact, sorted by people, planet and profit, as a starting point and source of inspiration. This table clarifies which values could be affected by the organization in the digital environment of the stakeholders. It serves as a tool both for the core team and for surveys or workshops that are carried out as part of participation with the workforce. The teams can reflect the value aspects listed in the table in their own, daily work and thus recognize the digital impact on the stakeholders.

The table is based on a publication by Winkler and Spiekermann.⁵⁰

⁵⁰Winkler, T., & Spiekermann, S. (2019). Human Values as the Basis for Sustainable Information System Design. *IEEE Technology and Society Magazine*, 38(3), 34-43

PEOPLE

Individual sustainability

Superior value	Specific Aspects
Autonomy	Independence, mobility and freedom of movement, modifiability, portability, right to change nationality, self-governance, human oversight of AI, moral autonomy
Education	intellectuality, lifelong learning, values and skills for sustainable living
Human skills	Ambition, Charity, Benevolence, Open-mindedness, Courage, Critical Reflection, Forgiveness, Generosity, Gentleness, Helpfulness, Generosity, Honesty, Humor, Imagination, Kindness, Logic, Self-Efficacy, Responsiveness, Remembrance, Self-Realization, Self-Control, Self-Esteem, Self-Respect, Moderation, Tradition, transcendence, universalism, truthfulness and truthfulness, virtues, obedience, wisdom
Health	Alerting, clean water and sanitation, disease control, emergency response, normal-length human life, maternal health, reducing child mortality, zero hunger
Human prosperity	Comfortable living, contentment and bliss, inner harmony, standard of living, meaning, salvation, contentment, prosperous living and livelihoods, quality of life
Human well-being	Harmony, Life, Awareness and Activity, Relief/Recovery, Spiritual Wellbeing, Quality of Patient Care
To know	Informed consent, open sharing of knowledge about sustainability, true opinion and understanding, competence
Enjoyment	Adventure and novelty, exciting life, happiness, hedonism, cheerfulness, distraction, rest and leisure, playfulness
Property	No poverty, property

social sustainability

Superior value	Specific Aspects
Responsibility	Responsibility, liability, official responsibility (administration)
Community	Inclusion, participation (social, cultural, political), partnerships to achieve goals, public interest, shared responsibility, sustainability, sociality, social order, social recognition, solidarity, understanding, compassion, love
Would	Politeness, courtesy, protection of the weak, respect, respect for all life, tolerance
Justice	Asylum from persecution, competence and fairness, distributive and procedural justice, integrity and independence, innocent until proven guilty, just distribution of goods and evils, strong institutions, fairness
Relationship	Affection and Cooperation, Fair and Supportive, Family, Friendship, Healthy Bonds, Interdependence, Love, Marriage
Respect for norms	Democracy, ethical behavior, good governance, human rights, international norms and the rule of law, value alignment
Trust	truth, integrity

Social and technical sustainability

Superior value	Specific Aspects
Transparency	Data access, rule-based, explainability, recognisability

PLANET**environment, sustainability**

Superior value	Specific Aspects
Environment	Animal life, biodiversity, climate, footprint, output orientation (instead of input focus), prudence, productive ecosystems, renewable materials and energy, respect for nature, responsible consumption and production, sustainability, regeneration

Social and individual sustainability

Superior value	Specific Aspects
Equality	Legal equality, gender equality, minority and indigenous equality
Freedom	Freedom from: Arbitrary Arrest and Deportation, Bias, Discrimination, Degrading or Degrading Conduct, Slavery, Torture, Freedom of: Speech, Opinion and Information, Thought, Belief and Religion
Security (Security & Safety)	Family, food and water, national security, non-hazardousness, non-harm, personal security, protection from the elements, social security, abuse sensitivity, data security, human security
Privacy	Monitoring, data sovereignty, user data rights, data protection, confidentiality

PROFIT**Technical sustainability**

Superior value	Specific Aspects
Aesthetics	Balance and shape, beauty
Efficiency	Costs, consumption minimization, performance, waste reduction
Maintainability	Building on existing framework (energy and material flow), feasibility, usability, supportability, functional suitability
Reliability	Reliability, durability, resilience, robustness, redundancy
Reusability	Compatibility, ease of disassembly, reconfigurability
Simplicity	Avoidance of unnecessary capacity or skills, calmness, cleanliness, predictability, reduction of complexity
Usability	Accessibility, " Design for All"

Economic sustainability

Superior value	Specific Aspects
human productivity	Development, Desirable Work, Industrial Advantages, Innovation and Infrastructure, Customer and Employer Interest, Integrity, Reputation and High Standards, Sense of Achievement, Sustainable Economic Activity, Unions

All dimensions

Superior value	Specific Aspects
Peace	Disarmament