

gartner hype cycle 2023 emerging technologies

****Gartner Hype Cycle 2023 Emerging Technologies: What's Shaping the Future?****

gartner hype cycle 2023 emerging technologies continues to be a vital resource for anyone interested in understanding how new technologies evolve from initial innovation to mainstream adoption. Every year, Gartner's Hype Cycle provides a snapshot of the latest trends, marking the stages where technologies are either hyped, misunderstood, or ready to deliver real value. The 2023 edition brings fresh insights into the tech landscape, highlighting innovations that could redefine industries and influence strategic decisions worldwide.

If you're curious about which technologies are making waves, where they stand in their maturity journey, and how they might impact businesses and consumers alike, this deep dive into the Gartner Hype Cycle 2023 emerging technologies will give you a thorough overview.

Understanding the Gartner Hype Cycle and Its Importance in 2023

At its core, the Gartner Hype Cycle is a graphical representation designed to show the maturity, adoption, and social application of specific technologies over time. It's broken down into five key phases:

1. ****Innovation Trigger**** – A breakthrough or new concept generates early interest.
2. ****Peak of Inflated Expectations**** – Buzz and hype build up, often leading to unrealistic expectations.
3. ****Trough of Disillusionment**** – Interest wanes as technologies fail to meet inflated promises.
4. ****Slope of Enlightenment**** – Practical understanding and second-generation products emerge.
5. ****Plateau of Productivity**** – The technology becomes widely adopted and delivers tangible benefits.

In 2023, this cycle is more relevant than ever because the pace of technological innovation is accelerating, and businesses need a clear lens to decide where to invest and what to watch.

Key Emerging Technologies on the Gartner Hype

Cycle 2023

The 2023 hype cycle showcases a variety of technologies spanning artificial intelligence, digital transformation, cybersecurity, and sustainability. Here are some of the standout innovations catching significant attention:

1. Generative AI and Foundation Models

Generative AI, including large language models (LLMs) and foundation models, has skyrocketed in visibility. These technologies are moving past the “Peak of Inflated Expectations” and into the “Slope of Enlightenment.” With applications ranging from content creation to drug discovery, generative AI is reshaping how organizations approach automation and creativity.

What makes these models particularly transformative is their ability to learn from vast datasets and generate human-like responses or solutions. Companies investing in generative AI now are likely to lead in innovation and customer engagement in the coming years.

2. Quantum Computing

Quantum computing remains a fascinating but still emerging field. According to the Gartner Hype Cycle 2023 emerging technologies report, quantum computing is positioned in the “Innovation Trigger” phase. While practical, large-scale quantum computers are not mainstream yet, the potential impact on cryptography, materials science, and complex optimization problems is enormous.

Organizations exploring quantum computing early can prepare for disruptive breakthroughs, especially in sectors like finance and pharmaceuticals.

3. Digital Twins and Metaverse Technologies

Digital twins – virtual replicas of physical assets – are gaining traction, especially with the rise of the metaverse. These technologies are moving through the “Trough of Disillusionment” but are expected to reach the “Plateau of Productivity” within a few years. Their ability to simulate real-world environments in real-time offers huge advantages in manufacturing, urban planning, and entertainment.

The metaverse itself, a digital universe where users interact in immersive environments, continues to evolve. Businesses leveraging these technologies for customer experience and remote collaboration are already seeing promising results.

4. Cybersecurity Mesh

In the realm of cybersecurity, the concept of a cybersecurity mesh is gaining momentum. Positioned on the “Slope of Enlightenment,” cybersecurity mesh architecture is an approach that allows distributed and modular security components to work together, enhancing overall protection.

With increasing cyber threats and more complex IT environments, this approach helps organizations build flexible, scalable, and adaptive defenses.

How to Leverage the Gartner Hype Cycle 2023 Emerging Technologies for Your Business

Understanding where a technology stands on the hype cycle can guide investment and strategy. Here’s how businesses can make the most of these insights:

Assess Readiness and Risk

Not all emerging technologies are ready for immediate adoption. By identifying whether a technology is in the early hype stages or approaching maturity, companies can balance risk and reward. For example, investing heavily in quantum computing today might be premature for most, but exploring pilot projects or partnerships can build valuable expertise.

Focus on Use Case Alignment

The hype cycle should not be the sole factor driving technology adoption decisions. It’s crucial to align emerging technologies with specific business needs and challenges. For instance, generative AI can be a game-changer for content-heavy industries, but its benefits might be less immediate in highly regulated sectors.

Plan for Long-Term Integration

Technologies on the “Slope of Enlightenment” or approaching the “Plateau of Productivity” suggest that practical applications and vendor ecosystems are maturing. Businesses can start integrating these technologies into their workflows and products to gain competitive advantages.

Trends Driving the 2023 Technology Landscape

The Gartner Hype Cycle 2023 emerging technologies also reflect broader trends that are shaping innovation today:

- **AI Everywhere:** Artificial intelligence continues to permeate every sector, from customer service chatbots to predictive analytics and autonomous systems.
- **Sustainability Tech:** Technologies that promote environmental responsibility, such as green computing and carbon accounting tools, are gaining traction as companies face pressure to meet ESG goals.
- **Decentralization and Edge Computing:** To address latency and data privacy, edge computing and decentralized networks are becoming more mainstream.
- **Human-Centric Innovation:** Emphasis on user experience and ethical AI is driving how technologies are developed and adopted.

What to Watch Beyond 2023

While the Gartner Hype Cycle 2023 emerging technologies offers a snapshot for this year, it's essential to look ahead. Technologies like brain-computer interfaces, autonomous vehicles, and advanced robotics may still be in early stages but have the potential to redefine industries in the next decade.

Staying informed about these evolving technologies, monitoring vendor developments, and engaging in industry forums can help businesses and professionals stay ahead of the curve.

Navigating the complex world of emerging tech is no small feat, but tools like the Gartner Hype Cycle 2023 emerging technologies report provide invaluable guidance. Whether you're a tech enthusiast, a business leader, or an innovator, understanding where technologies stand today helps make smarter decisions for tomorrow's challenges and opportunities.

Frequently Asked Questions

What is the Gartner Hype Cycle 2023 for emerging technologies?

The Gartner Hype Cycle 2023 for emerging technologies is a graphical representation that illustrates the maturity, adoption, and social application of specific technologies over time, highlighting key trends and innovations expected to impact various industries.

Which emerging technologies are featured in the Gartner Hype Cycle 2023?

The Gartner Hype Cycle 2023 features emerging technologies such as Generative AI, Quantum Computing, Extended Reality (XR), Autonomous Systems, Digital Twin Technology, and Advanced Cybersecurity solutions.

How does the Gartner Hype Cycle 2023 help businesses?

The Gartner Hype Cycle 2023 helps businesses by providing insight into the maturity and potential impact of emerging technologies, enabling informed decisions about investment, adoption timing, and strategic planning.

What stage are Generative AI technologies at in the Gartner Hype Cycle 2023?

In the Gartner Hype Cycle 2023, Generative AI technologies are positioned near the 'Peak of Inflated Expectations,' indicating high visibility and hype, with some early practical applications beginning to emerge.

Are quantum computing technologies considered mature in the Gartner Hype Cycle 2023?

No, quantum computing technologies are generally placed in the 'Innovation Trigger' or early 'Peak of Inflated Expectations' phase in the Gartner Hype Cycle 2023, highlighting their potential but limited current practical application.

How can organizations use the Gartner Hype Cycle 2023 to prioritize technology investments?

Organizations can use the Gartner Hype Cycle 2023 to identify which emerging technologies are approaching maturity and practical adoption, allowing them to prioritize investments in technologies that align with their strategic goals and risk tolerance.

What trends does the Gartner Hype Cycle 2023 reveal about the future of emerging technologies?

The Gartner Hype Cycle 2023 reveals trends such as increased focus on AI-driven solutions, the growth of immersive technologies like XR, the gradual advancement of quantum computing, and heightened attention to cybersecurity innovations amidst evolving digital threats.

Additional Resources

Gartner Hype Cycle 2023 Emerging Technologies: Navigating the Future of Innovation

gartner hype cycle 2023 emerging technologies continues to serve as a vital compass for businesses, technologists, and investors seeking clarity in the often murky terrain of innovation adoption. Each year, Gartner meticulously assesses a broad spectrum of emerging technologies, positioning them on a maturity curve that highlights their potential impact and realistic timelines for mainstream adoption. The 2023 iteration of the Gartner Hype Cycle offers fresh insights into the evolving technology landscape, revealing shifts in priorities, new frontiers of innovation, and the enduring challenges that organizations face in harnessing cutting-edge advancements.

This article delves into the most notable technologies identified in the Gartner Hype Cycle 2023 emerging technologies report, unpacking their current phase on the cycle, practical implications, and strategic considerations for stakeholders. By exploring these developments through an analytical lens, the discussion aims to provide a balanced perspective that transcends hype and grounds expectations in market realities.

Understanding the Gartner Hype Cycle Framework

Before dissecting specific technologies, it is essential to grasp the structure and purpose of the Gartner Hype Cycle itself. The model categorizes emerging technologies into five distinct phases:

1. **Innovation Trigger:** Early proof-of-concept stories and media interest kick off a new technology's journey.
2. **Peak of Inflated Expectations:** Enthusiasm and hype reach a zenith, often accompanied by unrealistic projections.
3. **Trough of Disillusionment:** Failures and setbacks lead to waning interest as challenges surface.
4. **Slope of Enlightenment:** Practical benefits and second-generation

products emerge, restoring confidence.

5. **Plateau of Productivity:** Technologies achieve mainstream adoption and demonstrate tangible value.

The Gartner Hype Cycle 2023 emerging technologies report applies this framework to over 30 innovations, offering a nuanced view that helps decision-makers prioritize investments and strategies.

Key Highlights from the Gartner Hype Cycle 2023 Emerging Technologies

Among the most significant trends, Gartner identifies technologies related to artificial intelligence (AI), digital twins, quantum computing, and extended reality (XR) as pivotal players reshaping industries. These technologies exemplify varying stages of maturity, underscoring the uneven pace of adoption across sectors.

Artificial Intelligence Advancements and Generative AI

AI remains a dominant theme in the Gartner Hype Cycle 2023 emerging technologies, with generative AI models—capable of producing human-like text, images, and code—occupying a prominent position near the Peak of Inflated Expectations. This placement captures both the excitement surrounding AI's potential to revolutionize content creation, software development, and customer interaction, and the caution warranted by unresolved issues such as bias, ethical concerns, and computational costs.

The report highlights how enterprises increasingly integrate AI-driven automation to enhance operational efficiency, but stresses that overreliance on immature AI solutions can lead to disillusionment. Practical use cases like AI-assisted drug discovery and predictive maintenance are moving toward the Slope of Enlightenment, where tangible outcomes validate investment.

Digital Twins: From Concept to Operational Asset

Digital twins—virtual replicas of physical systems—have transitioned from experimental applications to valuable tools in industries such as manufacturing, urban planning, and healthcare. Gartner places digital twins on the Slope of Enlightenment, reflecting growing maturity and market acceptance.

Organizations leveraging digital twins benefit from enhanced simulation capabilities, predictive analytics, and improved decision-making. However, challenges around data integration, scalability, and standardization remain prevalent. The Gartner Hype Cycle 2023 emerging technologies report suggests that companies adopting digital twins should focus on aligning these models with clear business objectives to realize measurable ROI.

Quantum Computing: Potential Meets Practicality Challenges

Quantum computing continues to captivate the imagination with its promise of solving complex problems beyond the reach of classical computers. In 2023, Gartner positions quantum computing at the Innovation Trigger phase, underscoring ongoing research breakthroughs but acknowledging the substantial technical hurdles ahead.

While some industries, such as pharmaceuticals and finance, are exploring quantum algorithms for optimization and simulation, widespread commercial use remains years away. The report advises cautious optimism, recommending that organizations monitor developments closely but avoid premature investments until the technology reaches greater scalability and reliability.

Extended Reality (XR) and the Metaverse

The convergence of augmented reality (AR), virtual reality (VR), and mixed reality (MR) technologies into the broader concept of XR garners significant attention in the Gartner Hype Cycle 2023 emerging technologies. Positioned near the Peak of Inflated Expectations, XR technologies promise transformative applications in training, remote collaboration, and entertainment.

However, the hype surrounding the metaverse has led some enterprises to overestimate near-term benefits, resulting in disillusionment when user adoption and content ecosystems fail to meet expectations. Gartner's analysis emphasizes the importance of developing practical, user-centric XR experiences that solve real business problems to navigate beyond the trough.

Emerging Themes and Strategic Implications

The 2023 hype cycle reveals several overarching themes influencing the trajectory of emerging technologies:

- **Hybrid Cloud and Edge Computing Synergy:** Technologies enabling seamless integration between cloud platforms and edge devices are gaining

traction, facilitating real-time data processing and low-latency applications.

- **AI Ethics and Governance:** As AI adoption grows, frameworks for responsible use, transparency, and bias mitigation become critical focal points.
- **Cybersecurity Innovations:** With expanding attack surfaces, emerging security technologies such as zero-trust architectures and AI-powered threat detection are advancing rapidly.
- **Sustainability-Driven Tech:** Environmental considerations are driving innovation in energy-efficient computing and sustainable supply chain technologies.

For enterprises, these trends signify that successful technology adoption in 2023 requires not only technical acumen but also strategic foresight and organizational agility.

Balancing Innovation with Risk Management

One of the core insights from the Gartner Hype Cycle 2023 emerging technologies is the necessity of balancing enthusiasm for breakthrough innovations with a pragmatic approach to risk. Technologies in the early phases demand rigorous validation and pilot testing to avoid costly missteps, while those approaching mainstream adoption require scalable integration and change management.

The cycle encourages organizations to adopt a portfolio mindset, investing concurrently in near-term value drivers and longer-term bets. This balanced approach can mitigate the volatility inherent in emerging tech landscapes and maximize competitive advantage.

Industry-Specific Adoption Patterns

Different sectors exhibit unique adoption curves for emerging technologies:

- **Healthcare:** Rapid uptake of AI for diagnostics and digital twins for patient monitoring.
- **Manufacturing:** Heavy investment in digital twins and IoT-driven automation.
- **Financial Services:** Exploration of quantum computing applications and AI risk analytics.

- **Retail:** Experimentation with XR for immersive shopping experiences and AI-driven personalization.

Understanding these sector-specific dynamics is crucial for vendors and clients aiming to tailor solutions that align with industry demands and regulatory frameworks.

Looking Ahead: What the Gartner Hype Cycle 2023 Emerging Technologies Means for Innovation Leaders

As the pace of technological change accelerates, the Gartner Hype Cycle 2023 emerging technologies report remains an indispensable tool for navigating complexity. Its balanced portrayal of promise and pitfalls helps innovation leaders make informed decisions grounded in empirical analysis rather than speculative enthusiasm.

By tracking where technologies reside on the hype curve, organizations can better allocate resources, anticipate market shifts, and foster cultures that embrace continuous learning. This approach not only enhances the likelihood of successful technology adoption but also positions enterprises to capitalize on the transformational potential of emerging innovations as they mature.

[Gartner Hype Cycle 2023 Emerging Technologies](#)

gartner hype cycle 2023 emerging technologies: *From Emerging Technologies to Business Opportunities* Amy Van Looy, 2024-07-03 This book provides an up-to-date overview and critical discussion of technologies that shape and influence the digital economy, and especially covers artificial intelligence, Internet of Things, virtual and augmented reality, digital twins, blockchain technology, 3D printing, and biochip technology. After two introductory chapters about the digital economy and digital technologies in general, dedicated chapters explain the basics and foundations of each of the selected technologies as well as their potential for industry and services. To this end, these chapters first introduce the specific digital technology, followed by one interview with an academic expert for further describing and explaining the technology plus a second one with a business expert for illustrating a successful business case. Each chapter ends with a recap of the takeaways, supplemented by links to further readings for those who are eager to delve more into the relative topic as well as a self-test to challenge the reader's understanding. The book mainly targets business professionals and advanced undergraduate students in business and computer science. Business professionals (ranging from employees to managers and executives) will become acquainted with the basic terminology and diverse business aspects related to emerging digital technologies. They will benefit from descriptions by academic leaders in the field along with information and advice from industry people. Students will get an overview of the most important

technologies which may also help them in selecting the most promising topics in their further education.

gartner hype cycle 2023 emerging technologies: Autonomous Consumer Business Julian Morgen, 2024-07-23 Eine immer mehr digital vernetzte Welt führt zu einer sehr großen Menge von unterschiedlichen Daten, die in Echtzeit generiert werden („Big Data“). Ein großer Teil dieser Datenproduzenten sind Nutzer von Social Media oder auch smarten Geräten, wie bspw. Fitnesstrackern oder mit dem Internet verbundenen Waschmaschinen („IoT“). Unternehmen, die sich diese Daten aus der direkten Lebenswelt der Konsumenten zu Nutze machen, können sehr präzise Einblicke bspw. über Einstellungen, Verhalten oder auch die Bedürfnisse potenzieller Kunden erhalten, wodurch der Weg zu einer „automatisierten Vermarktung“ geebnet wird. Zielsetzung dieses Buches ist die Entwicklung eines Konzeptes für ein Autonomous Consumer Business (ACB), das als maximal eigenständig agierendes und durch Künstliche Intelligenz getragenes Geschäftsmodell verstanden wird, bei dem Unternehmen die Bedürfnisse auf der Konsumentenseite automatisch erkennen und durch entsprechende Leistungsangebote befriedigen können. Weiterhin werden zentrale Bestimmungsgrößen, welche die konsumentenseitige Inanspruchnahme eines ACB im besonderen Maße beeinflussen, sowie potenzielle Kundengruppen empirisch identifiziert, wodurch Hinweise zur konkreten Ausgestaltung eines ACB gewonnen werden können.

gartner hype cycle 2023 emerging technologies: Social Robot Experience Mi Meurer, 2025-03-03 Service-Roboter halten zunehmend Einzug in die Lebenswelt der Konsumenten und unterstützen diese bei ihren Alltagstätigkeiten. Dadurch verändern sie auch die sog. Customer Experience (CE) der Konsumenten. Diese Social Robot Experience (SRE) steht im Zentrum des Bandes. Es wird die zentrale Frage untersucht, ob und in welcher Richtung der Einsatz von Social Robots die CE eines Konsumenten verändert. Basierend auf einer Literaturanalyse wird zunächst das sog. IKEV-Modell zur Erklärung der Customer Experience entwickelt, welches nach weiteren konzeptionellen Überlegungen hinsichtlich des Einflusses von Social Robots zu einem SRE-Wirkungsmodell konzeptioniert wird. Die theoretisch-konzeptionellen Überlegungen werden sodann am Anwendungsfeld „Mensabesuch“ einer empirischen Prüfung unterzogen. Zu diesem Zweck wird das SRE-Wirkungsmodell zunächst auf den Einsatz des Social Robots „Pepper“ in der Mensa der Universität Trier von dem Kauf- bis hin zum Nutzungsprozess angepasst und in einer quantitativen Studie untersucht. Durch die Anwendung eines Experimentaldesigns kann der Effekt von Pepper auf die CE quantifiziert werden. Sowohl die Operationalisierung als auch die empirische Modellprüfung erfolgt über unterschiedliche Ansätze. Mit dem Vergleich, ob diese unterschiedlichen Ansätze zu unterschiedlichen Ergebnissen führen, verfolgt der Band auch eine methodische Forschungsintention, um Handlungsempfehlung für die empirische Wissenschaft abzuleiten.

gartner hype cycle 2023 emerging technologies: 33 Impulse für einfache Datenstrategien im Mittelstand Göllner, Swen , 2024-03-28 33 optimierte Datenstrategien für KMU gewinnbringend einsetzen Fahren Sie rasche wirtschaftliche Erfolge ein mit optimierten Datenstrategien. Der Wirtschaftsinformatiker Swen Göllner weiß, was KMU heute wirklich brauchen, wenn es um Datenlösungen geht. Sie müssen nicht in teure IT-Projekte investieren, kleine Veränderungen und alternative Ansätze können bereits große Wirkung entfalten und gewinnbringend sein. Daten können so zukünftig die Grundlage für Prozessoptimierungen, Strategien und neue Geschäftsmodelle bilden. Für den Erfolg braucht es EntscheiderInnen, die mitreden und vorgesetzte Lösungen kritisch hinterfragen können. Lassen Sie sich nicht einnebeln, sondern übernehmen Sie Kontrolle. Als IT-Manager in kleinen wie großen Organisationen und als Mittelstandsexperte kennt der Autor die Herausforderungen im Unternehmensalltag: Er gibt Ihnen Ratschläge, damit Sie nicht zur Geisel Ihrer IT werden. Er zeigt Ihnen, wie man Mitarbeitende am besten mitnimmt und wie man emotionale Blockaden in der Belegschaft aufspürt und auflöst. Erfahren Sie, wie Sie mit einfachen Mitteln und Datenstrategien ertragreiche Schätze heben. Mit einem Vorwort von Damian Kutzius, Data Scientist Experte beim Fraunhofer-Institut für Arbeitswirtschaft und Organisation „Ein unverzichtbarer Leitfaden für alle Mittelständler, die die Digitalisierung erfolgreich vorantreiben

wollen.“ Philipp Noack, vieljähriger leitender Manager mit Erfahrung von Digitalisierungsprojekten weltweit. „Jedes Unternehmen hat Daten und nutzt sie. Dieses Buch zeigt, wie man es ohne Riesen-Investments effizienter und mit Gewinn machen kann.“ Thomas Balgheim, Aufsichtsratsvorsitzender Syngenio AG, Co-Founder DataValueThinking, Managementberater und Coach

gartner hype cycle 2023 emerging technologies: Einführung in die Wirtschaftsinformatik Claudia Lemke, Walter Brenner, 2024-09-28 Die Informations- und Kommunikationstechnik ist heute ein allgegenwärtiger Teil unseres privaten und geschäftlichen Lebens geworden. Diese tiefgreifende Veränderung von Wirtschaft und Gesellschaft entspricht den Auswirkungen der vergangenen industriellen Revolution. Dieses Lehrbuch bricht bewusst mit den traditionellen Ausbildungskonzepten der Wirtschaftsinformatik und stellt die Menschenzentrierung in den Mittelpunkt der privaten und beruflichen Nutzung von Informations- und Kommunikationstechnik. Aus dem Blickwinkel von Digital Natives werden die Grundlagen des digitalen Zeitalters und die wesentlichen Wirkungsweisen der Informations- und Kommunikationstechnik erklärt und zentrale Herausforderungen thematisiert. Zahlreiche Fallbeispiele erläutern die Definitionen, Konzepte und Methoden. Lernziele, Kontrollfragen und Diskussionsaufgaben runden dieses Lehrbuch ab. Die 2. Auflage wurde aktualisiert und um neue technologische Entwicklungen sowie Aufgaben in der Flashcards-App ergänzt. In dem vorliegenden ersten Band geht es um das Verstehen des digitalen Zeitalters. Im folgenden aktualisierten Band 2 stehen die Grundlagen der Programmierung und Datenanalytik im Vordergrund und im neuen Band 3 das Design und Management des digitalen Zeitalters. Zusatznutzen: Laden Sie die Springer Nature Flashcards-App kostenlos herunter und überprüfen Sie Ihr Wissen.

gartner hype cycle 2023 emerging technologies: Human Interaction & Emerging Technologies (IHiet 2023): Artificial Intelligence & Future Applications Tareq Ahram and Redha Taiar, 2023-08-22 Proceedings of the 10th International Conference on Human Interaction and Emerging Technologies, IHiet 2023, August 22-24, 2023, Université Côte d'Azur, Nice, France.

gartner hype cycle 2023 emerging technologies: Entrepreneurship im digitalen Zeitalter Daniel R. A. Schallmo, Jens Uwe Pätzmann, Thomas Clauß, Verena Mattes, 2025-09-27 Das Herausgeberwerk zeigt aktuelle wissenschaftliche Forschung und praxisrelevante Erkenntnisse, um das Wissen über Entrepreneurship im digitalen Zeitalter zu erweitern. Die enthaltenen Beiträge umfassen empirische Studien und konzeptionelle Ansätze zu Trends, Ökosystemen, Geschäftsmodellen und Technologien, die das digitale Entrepreneurship prägen. Die Beiträge thematisieren die folgenden vier Schwerpunkte: (1) Grundlagen und Konzepte des digitalen Unternehmertums, (2) Methoden und Werkzeuge im digitalen Zeitalter, (3) Branchen und Anwendungsfälle, und (4) Unternehmensentwicklung und Innovationsstrategien. Ziel ist es, eine Diskussion zwischen Wissenschaftlern, Lehrenden und Studierenden aus den Bereichen Entrepreneurship, Intrapreneurship und Digitalisierung anzuregen. Gründer und Praktiker aus den Bereichen Business Development, Intrapreneurship und Management erhalten wertvolle Erkenntnisse, um digitales Unternehmertum erfolgreich zu praktizieren und die Vorteile der Digitalisierung für ihre zukünftigen Geschäftsmodelle zu maximieren.

gartner hype cycle 2023 emerging technologies: Reskilling the Workforce for Technological Advancement Meçik, Oytun, 2024-02-19 The modern workforce is continually evolving, presenting an ongoing challenge to business stakeholders, from workers to administration. Technological advancements, shifting consumer preferences, and the ever-changing global economic landscape have set the stage for a resounding conundrum. How can workers, employers, and society adapt to this rapidly transforming environment? Reskilling the Workforce for Technological Advancement presents an answer in the concept of reskilling existing workforces. As highlighted in the book, reskilling offers a path to not only address the challenges faced by individuals but also to propel businesses and society forward. The first issue at hand is the need for workers to continually develop new skills and adapt to new roles in response to technological advancements. Reskilling the

Workforce for Technological Advancement presents a compelling solution by outlining how reskilling can open to new career opportunities, boost earning potential, and provide the necessary tools for individuals to remain competitive.

gartner hype cycle 2023 emerging technologies: Digitale Daseinsvorsorge Jens Meier, Tobias Brosze, Ulf Papenfuß, Manuel Wiesche, 2024-07-06 Dieses Buch ist der kompetente Wegbegleiter für alle mit der digitalen Daseinsvorsorge befassten Akteure. Das Buch eignet sich hervorragend im Kontext von Aus- und Weiterbildung und ebenso als praxisorientierte Grundlagenliteratur für Dozierende und Studierende. Digitale Daseinsvorsorge umfasst die digitalen Infrastrukturen, Dienstleistungen und Güter, die in der digitalen Gesellschaft für nachhaltige gesellschaftliche Teilhabe, Gleichwertigkeit der Lebensverhältnisse und digitale Souveränität von essenzieller Bedeutung sind. Für das demokratische Gemeinwesen besitzt sie eine erhebliche Relevanz. Die digitale Daseinsvorsorge stellt ein wichtiges Kriterium für die Zukunftsfähigkeit von Kommunen dar, u.a. im Kontext der Energie-, Wärme- oder auch Mobilitätswende. Angesichts zunehmender Herausforderungen ist es wichtig, die Weichen hin zur digitalen Daseinsvorsorge jetzt richtig zu stellen. Erfolgskritisch sind hierbei u.a. technische Kompetenz, Weitsicht, vertrauensvolle Zusammenarbeit zwischen Verwaltungen, Dienstleistern und Bürgern, sowie kluges und strategisches Handeln. Beim Aufbau einer zukunftsfähigen digitalen Daseinsvorsorge wird Stadtwerken und anderen öffentlichen Unternehmen eine besondere Bedeutung zugewiesen. Damit die digitale Transformation gelingt und die digitale Grundversorgung in Deutschland zu einem anerkannten Erfolgsmodell wird, gilt es nun die entscheidenden Impulse aufzunehmen und verlässliche Rahmenbedingungen zu schaffen. Das zielorientierte Zusammenspiel von Verwaltungen, öffentlichen und privatwirtschaftlichen Unternehmen ist ein Schlüsselthema für die Staats- und Verwaltungsmodernisierung, sowie der nachhaltigen Stadtentwicklung. Mit Beiträgen zu folgenden Themenkomplexen Digitale Daseinsvorsorge – Daseinsvorsorge im Wandel Gestaltung der digitalen Daseinsvorsorge aus Sicht öffentlicher/kommunaler Unternehmen Stadtwerke als Treiber der digitalen Transformation Plattformen als zentrales Element für digitale Daseinsvorsorge, Smart Cities, Smart Regions und Smart Government Best-Practice-Ansätze der digitalen Daseinsvorsorge Good Governance-Perspektiven für nachhaltige Stadtentwicklung und digitale Daseinsvorsorge

gartner hype cycle 2023 emerging technologies: Digitalisierung in der Sozial- und Kulturwirtschaft Werner Heister, Markus Krings, 2025-03-20 In einer zunehmend digitalisierten Welt ist dieses Lehrbuch eine wichtige Orientierungshilfe für alle, die in der Sozial- und Kulturwirtschaft tätig sind. Es erläutert Grundlagen und Schlüsseltechnologien wie Künstliche Intelligenz und führt durch die komplexen Facetten digitaler Transformationen in verschiedenen Sektoren. Neben der Optimierung von Arbeitsprozessen durch digitale Strategien illustriert es, wie tiefgreifende Veränderungen in den Geschäftsfeldern realisiert werden können, um soziale und kulturelle Leistungen zu optimieren. Praxisorientierte Projektideen zeigen auf, wie digitale Innovationen in spezifischen Bereichen implementiert werden können. Eine umfassende Roadmap zur Digitalisierung stellt sicher, dass technologische Entwicklungen nachhaltig und inklusiv gestaltet werden. Besondere Aufmerksamkeit widmet das Buch auch dem Thema Informationssicherheit sowie den ethischen, rechtlichen und gesellschaftlichen Implikationen des digitalen Wandels. Dieses Lehrbuch richtet sich an Studierende, Lehrende sowie Fach- und Führungskräfte, die den digitalen Wandel nicht nur verstehen, sondern aktiv vorantreiben und gezielt für ihre Arbeit nutzen möchten. Es motiviert dazu, die Digitalisierung als Chance zu begreifen und mit innovativen sowie kreativen Strategien zukunftsweisende Lösungen zu entwickeln.

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AI is, how it is transforming business, how it can be used to innovate and how to navigate the realities of implementation. This book looks at the combination of AI with other emerging technologies such as blockchain, internet of things and virtual and augmented reality, showing how these can work together to create new business opportunities and solve complex business problems. It provides guidance on the importance of designing AI applications that are human-centred, including inclusive design and empathy in AI. It also features contributions and insights from leading experts and a wealth of real-world examples profiling AI adoption and innovation.

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reality: for many NPOs, digital adaptation is no longer about relevance but survival. Part II delves into the comparative digital strategies of NPOs and their for-profit counterparts in Chapter 4, highlighting the need for tailored approaches. Chapter 5 explores the Nonprofit Digital Maturity Model (NDMM), using the San Diego Diplomacy Council as a focal point. The journey then unfolds further in Chapter 6, which casts a spotlight on the strategic execution of DT in NPOs, weaving in comprehensive analyses to dissect the forces shaping an NPO's digital trajectory. Part III dives deeper, with Chapter 7 laying the foundation of the NDMM. The subsequent chapter meticulously unpacks the NDMM, culminating in Chapter 9, which emphasizes the pillars of DT—Culture, Ethics, and Security—forming the essence of the Nonprofit DT Strategic Framework (NDTSF). This chapter also crafts a tailored roadmap for NPOs, charting a comprehensive DT course. Concluding with a forward-looking stance, Chapter 10 thrusts readers into the enthralling fusion of AI and NPOs, exploring transformative potentials and ethical concerns. Through real-world cases, it positions AI as both a potent tool and a vital dialogue for NPOs. Essentially, this book equips NPOs with tools like the NDMM and insights from successful DT narratives. It seeks to provide a practical guide for nonprofits through their DT journey, ensuring they harness technology ethically and effectively without compromising their core values.

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