

# Autonomous vehicles, IoT most hyped technologies of 2015: Gartner

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The journey to digital business continues as the key theme of Gartner's 'Hype Cycle for Emerging Technologies, 2015'. New to the Hype Cycle this year is the emergence of technologies that support what Gartner defines as digital humanism — the notion that people are the central focus in the manifestation of digital businesses and digital workplaces. "The Hype Cycle for Emerging Technologies is the broadest aggregate Gartner Hype Cycle, featuring technologies that are the focus of attention because of particularly high levels of interest, and those that Gartner believes have the potential for significant impact," said Betsy Burton, vice president and distinguished analyst at Gartner. "This year, we encourage CIOs and other IT leaders to dedicate time and energy focused on innovation, rather than just incremental business advancement, while also gaining inspiration by scanning beyond the bounds of their industry."

Major changes in the 2015 Hype Cycle for Emerging Technologies include the placement of autonomous vehicles, which have shifted from pre-peak to peak of the Hype Cycle. While autonomous vehicles are still embryonic, this movement still represents a significant advancement, with all major automotive companies putting autonomous vehicles on their near-term roadmaps. Similarly, the growing momentum (from post-trigger to pre-peak) in connected-home solutions has introduced entirely new solutions and platforms enabled by new technology providers and existing manufacturers.



"As enterprises continue the journey to becoming digital businesses, identifying and employing the right technologies at the right time will be critical," said Burton. "As we have set out on the Gartner roadmap to digital business, there are six progressive business era models that enterprises can identify with today and to which they can aspire in the future. However, since the Hype Cycle for Emerging Technologies is purposely focused on more emerging technologies, it mostly supports the last three of these stages: Digital Marketing, Digital Business and Autonomous."

**Digital Marketing (Stage 4):** The digital marketing stage sees the emergence of the Nexus of Forces (mobile, social, cloud and information). Enterprises in this stage focus on new and more sophisticated ways to reach consumers, who are more willing to participate in marketing efforts to gain greater social connection, or product and service value. Enterprises that are seeking to reach this stage should consider the following technologies on the Hype Cycle: Gesture Control, Hybrid Cloud Computing, Internet of Things (IoT), Machine Learning, People-Literate Technology, Speech-to-Speech Translation.

**Digital Business (Stage 5):** Digital business is the first post-nexus stage on the roadmap and focuses on the convergence of people, business and things. The IoT and the concept of blurring the physical and virtual worlds are strong concepts in this stage. Physical assets become digitalized and become equal actors in the business value chain alongside already-digital entities, such as systems and apps.

Enterprises seeking to go past the Nexus of Forces technologies to become a digital business should look to these additional technologies: 3D Bioprinting for Life Science R&D, 3D Bioprinting Systems for Organ Transplant, Human Augmentation, Affective Computing, Augmented Reality, Bioacoustics Sensing, Biochips, Brain-Computer Interface, Citizen Data Science, Connected Home, Cryptocurrencies, Cryptocurrency Exchange, Digital Dexterity, Digital Security, Enterprise 3D Printing, Smart Robots, Smart Advisors, Gesture Control, IoT, IoT Platform, Machine Learning, Micro Data Centers, Natural-Language Question Answering, Neurobusiness, People-Literate Technology, Quantum Computing, Software-Defined Security, Speech-to-Speech Translation, Virtual Reality, Volumetric and Holographic Displays, and Wearables.

**Autonomous (Stage 6):** Autonomous represents the final post-nexus stage. This stage is defined by an enterprise's ability to leverage technologies that provide humanlike or human-replacing capabilities. Using autonomous vehicles to move people or products and using cognitive systems to recommend a potential structure for an answer to an email, write texts or answer customer questions are all examples that mark the autonomous stage. Enterprises seeking to reach this stage to gain competitiveness should consider these technologies on the Hype Cycle: Autonomous Vehicles, Bioacoustic Sensing, Biochips, Brain-Computer Interface, Digital Dexterity, Human Augmentation, Machine Learning, Neurobusiness, People-Literate Technology, Quantum Computing, Smart Advisors, Smart Dust, Smart Robots, Virtual Personal Assistants, Virtual Reality, and Volumetric and Holographic Displays.

"Although we have categorised each of the technologies on the Hype Cycle into one of the digital business stages, enterprises should not limit themselves to these technology

groupings," said Burton. "Many early adopters have embraced quite advanced technologies, for example, autonomous vehicles or smart advisors, while they continue to improve nexus-related areas, such as mobile apps.