

On top of that, technological innovations are evolving rapidly, and legal frameworks may not always be able to keep pace with these changes. Therefore, companies seeking to implement blockchain in their engineering projects should be prepared to adapt to changes in the regulatory environment.

The high cost of implementing and integrating the technology is another important aspect that can delay the adoption of blockchain in engineering projects. From initiation to maintenance and upgrades, blockchain systems involve high financial costs for software development, staff training, and security, which can make implementation difficult for many companies.

Data privacy and legal compliance issues can also make it difficult to implement blockchain in engineering projects. As data on the blockchain is publicly available and cannot be deleted or altered, there is a risk of data privacy and confidentiality being compromised [3].

Therefore, even with the challenges that accompany the introduction of blockchain in engineering projects, its potential to improve data management and security makes it a key tool for the future development of the engineering industry.

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CRITERIA FOR SELECTING POLYMERIC MATERIALS

Polymeric materials constitute an integral part of contemporary transportation manufacturing, providing not only convenience and aesthetic appeal but also functionality to the interior coatings of moving vehicles. When selecting materials for interior treatment, transportation manufacturers must consider various criteria, including mechanical, chemical, thermal, aesthetic, ecological, and economic aspects. Let's examine each of them.

Mechanical properties: Materials should be sufficiently robust to withstand mechanical loads arising during the vehicle's movement and resistant to wear, ensuring prolonged service life without compromising quality.

Chemical resistance: Given the diverse operating conditions of moving vehicles, it's crucial for polymeric materials to withstand chemical and climatic influences such as moisture, salts, oils, and solvents. This ensures long-term operation of interior coatings without damage or deformation, as well as prevents the formation of hazardous substances.

Thermal stability: Moving vehicles may be subjected to various temperature fluctuations, highlighting the importance of selecting materials with high thermal stability. This guarantees that coatings maintain their structure and properties even under extreme temperatures.

Aesthetic characteristics: In addition to functionality, the aesthetic appearance of interior coatings is significant for consumers. It is essential to ensure an attractive appearance and the ability to choose colors and textures.

Ecological aspects: Increasing attention to environmental issues emphasizes the importance of selecting eco-friendly materials. When choosing materials for interior coatings, manufacturers must consider their renewability, recyclability, and environmental impact during production and use.

Economic aspects: Economic factors are crucial in the automotive industry. Interior coatings should not be excessively costly, as their utility may not justify high expenses.

Manufacturing methods: Polymer coating manufacturing methods can be classified based on application techniques, which also depend on the type of material and application characteristics. Major methods include physical application (spraying, rolling, or brushing), chemical application, thermal application, and electrostatic application. It's worth noting that classifying polymer coating application methods helps choose the most efficient method for specific applications, considering requirements for quality, speed, and process efficiency.

Furthermore, interior coatings of moving vehicles are subject to various requirements that may vary depending on factors such as the type of carriage, its purpose (passenger or freight), regional standards, and passengers safety and comfort requirements. Key requirements include fire safety, hygiene and ease of cleaning, acoustic and thermal insulation. It is worth noting that every material used

in passenger carriages, especially in the interior, must be certified, and its characteristics should not exceed the established standards.

Analysis of the properties of materials and the criteria applied to them enables the formulation of requirements for polymeric materials for interior coatings and their reasoned selection.

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THE UNCANNY VALLEY EFFECT OR HOW OUR BRAIN PERCEIVES ROBOTS

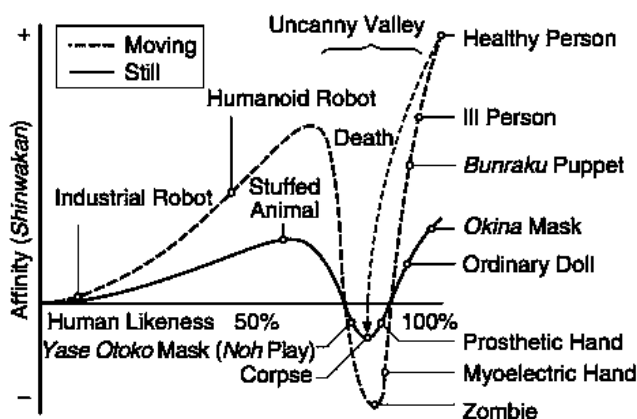


Fig. 1. Masahiro Mori, «The Uncanny Valley»,
IEEE Robotics & Automation Magazine,
19(2):98-100 (June 6, 2012)

Until now, the phenomenon of the «uncanny valley» has only a practical evidence base rather than a scientific one. The word «valley» here means «cavity, recess, critical point». If this «deepening» is transferred to the graph, it will display the degree of horror that a person experiences when observing anthropomorphic subjects and objects (dolls, masks, robots).

This phenomenon was first noticed and described by a psychiatrist of German origin, Ernst Jentsch. Back at the beginning of the 20th century, he came to the conclusion that the feeling of creepiness and horror is a mental phenomenon that arises when observing something very familiar from an unusual, non-standard perspective, an object that is very