20 Early alert system for fake news
Controlling fake news in social media more efficiently and precisely – this is the goal of scientists at the Max Planck Institute for Software Systems. For this purpose, they are combining artificial intelligence processes with the evaluation of signals that reflect human judgment.

26 Photo without a face
We have hardly any control over where information about us, or even photos with our likeness, are made public. However, in future we may at least be able to prevent photos of us being published on other people’s Facebook pages when we are not involved. The technology for this purpose was developed by researchers at the Max Planck Institute for Software Systems in Saarbruecken.

32 Rules for robots
Artificial intelligence is advancing rapidly – literally as well as figuratively: robotic nurses could soon be moving into our homes. However, their behavior is still open to negotiation. Researchers at the Max Planck Institute for Innovation and Competition in Munich are investigating how legal means can ensure that artificial intelligence adheres to human values.

ON THE COVER. The digitalization of our society is advancing ever more rapidly – and requires brand new security strategies: how can we effectively control fake news in social media, for example? How can we ensure that robotic nurses equipped with artificial intelligence will act as intended by the inventor? And what about photos of us that appear on platforms such as Facebook? Max Planck researchers are looking to find solutions to these problems.
No category: some celestial bodies don't fit into traditional systems.

Organ-like structures can be cultivated in the lab.

No textbook: researchers are investigating how children learn actively and independently.

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48 The oddballs of the solar system
Small bodies orbiting the Sun are traditionally classified either as comets or as asteroids. However, some small cosmic objects don't fit into either of these categories – and are making astronomers think again.

BIOLOGY & MEDICINE
54 A grain of brain
Scientists are able to make highly specialized cells in the human body turn back into divisible all-rounders. These can be used to cultivate organ-like structures such as brain-oids in the lab, which can in turn be used to research diseases such as Parkinson's.

ENVIRONMENT & CLIMATE
62 A nose for feelings
Personal portrait: Jonathan Williams

CULTURE & SOCIETY
70 The nature of children's curiosity
Active, independent learning is known to be a particularly efficient way of acquiring knowledge. Researchers are developing sophisticated tests which they intend to use to track children's learning strategies.

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