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# The KIT

Knowledge & Information Technology

**cébé**  
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## → Countdown to Issue 300

November 16 will be the date of Issue 300 of the KIT, and we plan to stop at that point. There are lots of newsletters out there, and while a service that selects and aggregates some of the notable announcements in enterprise architecture, IT security, governance, knowledge management and AI seems to have resonated with many of you, it cannot go on forever. Also, as most of you know, this has been a "labor of love" by mostly just one person, who happens to turn 70 on November 10 and needs to start slowing down.

cébé IT & Knowledge Management will stay in business as long as we have faithful clients (including a couple new ones we gained recently) but the newsletter is not critical to the company operations and takes time. Hence our decision to bring it to a close.

If some of you are interested in picking up this work, we can talk about a collaboration scheme

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See: [Previous KIT issues](#)

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that might benefit everyone. Otherwise, The KIT No. 300 will be the last one.

We may also extract some of the still relevant nuggets of information (and the often sarcastic quotes from the "Seen Recently..." section) and publish them on a wiki page next year. Stay tuned.

## → Standards Relevant to Digital Twins

The EU Standards Observatory has kicked off a six-week "sprint" to create a landscape report about standards relevant to digital twin technology and applications. The Technical Working Group tasked with this is led by Antonio Kung (Trialog) and Claude Baudoin (representing the Object Management Group).

If you know of standards, guidelines, etc., either published or in progress, that are relevant to this domain, [please write us](#) by September 10 to tell us what they are.

## → Secure Storage for Blockchain and NFTs

Blockchain technology is finding new uses every day, and one of the most explosively growing areas in recent months has been non-fungible tokens (NFTs), used to represent the ownership of unique digital assets, including art and collectibles. But what if the blockchain that encodes the ownership of the asset, or the digital wallet containing the key to it, are lost or stored on a server that goes away?

At a recent call of the Cloud Security Alliance's Blockchain Working Group, Ashish Mehta presented the InterPlanetary File System (IPFS), a distributed data storage system where files have permanent, location-independent IDs that are hashed from the content. IPFS is being used by a supply chain management application (Morpheus), a website hosting service (Fleek), an e-commerce application (OpenBazaar), an art marketplace (Avatar), and more.

If all the precautions fail, there remains cyber insurance. OMG's Cloud Working Group has drafted a supplement to its 2020 paper on Cyber Insurance, specifically addressing the changes triggered by the emergence of NFTs. The final version should be made public in October.

## → Moore's Law and Extreme UV Lithography

Every time someone predicted the end of Moore's Law (which says that the number of transistors on a chip doubles every two years), some new innovation has given it new life. When SEMATECH, the semiconductor manufacturing technology research consortium, was started in Austin in 1988, the challenge was to engrave features with a width of 0.35 microns (350 nanometers) on a silicon chip. Each subsequent generation aimed to reduce this size by a factor of 0.7, ensuring the doubling of the density. So we went to .25, .18, .13, etc., microns. Fast forward to the current times, and three chip makers (TSMC, Samsung, and Intel) are now aiming at feature sizes of 5 nm or less. This [Wired Magazine article](#) explains the technology behind EUV and the enormous size (and price) of the machines capable of this feat.

## → Responsible Computing Trends

When Google announced yesterday (Aug. 31) that it would invest €1 billion in new data center infrastructure in Germany, one of the notable aspects of the announcement was that 80% of the power needed by the new servers would come from renewable energy. IBM Germany is also involved in setting up a vendor-neutral "Responsible Computing Initiative" -- we should hear more about this by the end of this year. Now repeat after me: "verantwortlich" (that's "responsible" in German).

For a broader perspective on the various aspects of responsible computing, including ethics and data protection, see this [Communications of the ACM paper](#) from 2019.

### Seen Recently...

*"Every implementation of artificial intelligence, automation and robotics should include a plan for the human acceptance of technology adoption."*

-- Mary Shacklett, in a [TechRepublic article](#)

