

Standardization vs innovation: Can they coexist?

Dilemma of the Month 11/12/2025

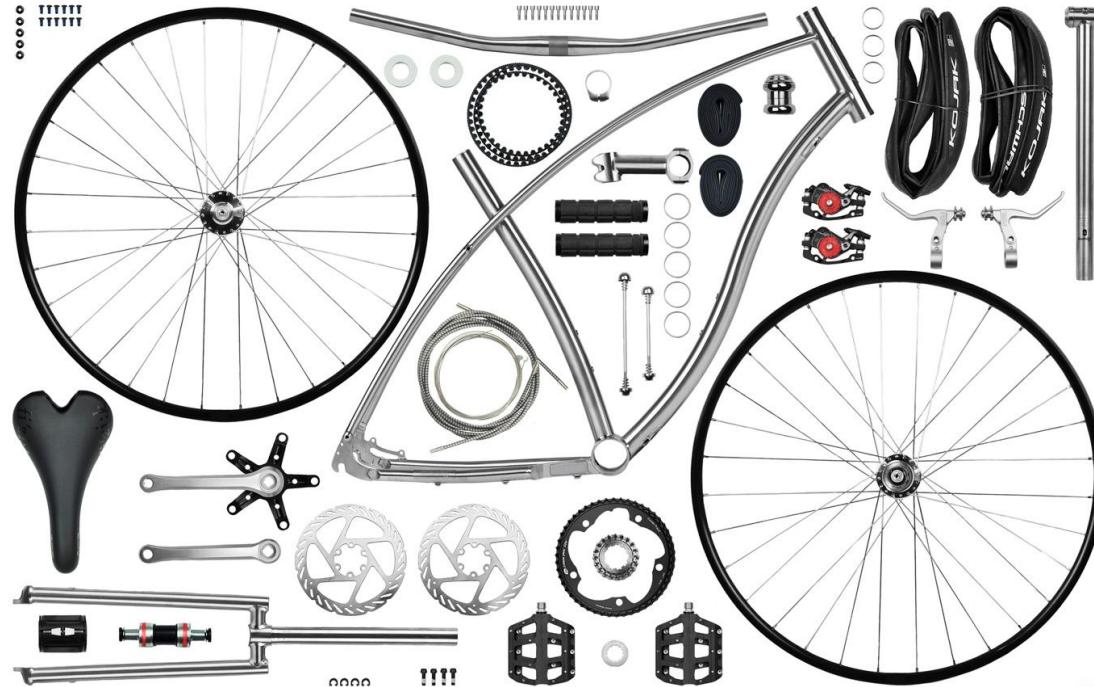
Fabio Giovanazzi, Dominik Senti, Leo Piroska





USB TYPE C









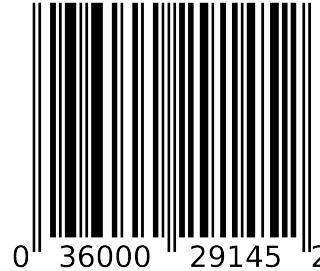
Quote from **Martin Husovec**

The London School of Economics and Political Science

Lawyer representing Free Software Foundation Europe at the court hearing

Innovation does not exempt a company from regulation. The FSFE challenged Apple's attempt to invalidate a democratically adopted EU interoperability mandate for operating systems. Given that Apple's product is an ecosystem where value is created not only by Apple, but also by independent external developers and consumers who own the devices, coercing selected gatekeepers' products into interoperability is entirely legitimate and necessary.

Source: <https://fsfe.org/news/2025/news-20251021-01.en.html>





Source: <https://www.libreoffice.org/assets/Conference/LATAM-Conf/Estandares.pdf>
<https://effi.org/blog-kai-2007-09-05-en/>

What is a “standard”?

What is a “standard” in your research field?



Quote from **Raphael Zingg**

ETH professor (Mlaw), IPrime Legal AG

SIP: "Intellectual Property: an Introduction"

Intellectual property rights and the exclusivity they grant fundamentally clash with the necessity for interoperability and standardization. By holding the rights to key technological advances, a single company may block and sue competitors wishing to create compatible, but IP-infringing solutions. In response, industries have decided to join force by adopting standards designed by standard setting organizations. By participating, these firms can have their innovations included in the standard, but must typically commit to license their standard-essential patents on fair, reasonable and non-discriminatory terms (so-called FRAND terms). Companies may also license their standard-essential patents to patent pools, which in turn will collect royalties for the pool's hundreds or thousands of patents. A new market entrant may thus license at once all these patents – for instance licensing all necessary Wi-Fi and video streaming technology in one shot.

Legislators also try to impose rules to ensure interoperability. Under European design law for instance, the features ensuring the mechanical interconnection of two products cannot be protected (must-fit exception prohibiting for example the protection of the arrangement of metal pins of an electrical plug). In summary, while national IP laws consider interoperability as important, there is a great need for industry self-organization and commitment to standardization.

General functions of standards	Positive impacts on innovation	Negative impacts on innovation
Information	<ul style="list-style-type: none"> ▶ Provide codified knowledge relevant for innovation ▶ Coordinate collaborative innovation activities 	<ul style="list-style-type: none"> ▶ Generate cost for standards screening ▶ Allow unintended knowledge spillovers to competitors by implementation of standards
Variety reduction	<ul style="list-style-type: none"> ▶ Allow exploitation of economies of scale via standards ▶ Support critical mass via standards in emerging technologies and industries ▶ Create incentives for incremental innovation based on standards 	<ul style="list-style-type: none"> ▶ Reduce choice ▶ Support market concentration ▶ Push premature selection of technologies ▶ Limit incentives for radical innovation
Minimum quality	<ul style="list-style-type: none"> ▶ Creating trust in innovative technologies and products at the demand side 	<ul style="list-style-type: none"> ▶ Promote market concentration
Compatibility	<ul style="list-style-type: none"> ▶ Increase variety of system products ▶ Promote positive network externalities ▶ Avoid lock-in into old technologies 	<ul style="list-style-type: none"> ▶ Push monopoly power ▶ Foster lock-in into old technologies in case of strong network externalities
Insurance	<ul style="list-style-type: none"> ▶ Serve as insurance against failure of radical innovation 	<ul style="list-style-type: none"> ▶ Create incentives for incremental instead of radical innovation

Source:

Standards and innovation, what does the research say?

<https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100466.pdf>



Information from **Martin Häuer**

Martin-Luther Universität Halle-Wittenberg

Works on open source hardware

Types of standards

De facto

Consortium-based

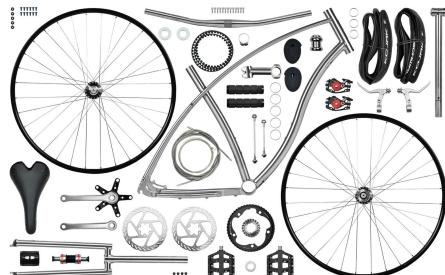
De jure

Open

Name some **advantages** and **disadvantages** of a specific standard



...



...



...



Where do you feel like a
standard is **missing**?

EU's Digital Markets Act (DMA)



Source:
https://digital-markets-act.ec.europa.eu/gatekeepers_en

DMA for consumers

CHOICE OF DIGITAL SERVICES

You can now install preferred apps directly from the web or alternative app stores on your smartphone. Choice screens make it easier for you to choose the browser and search engine that is best for you.

DATA OWNERSHIP

You gain more control over your personal data. You have the power to decide whether companies can use your data across different services and whether you allow tracking and profiling for advertising purposes.

SEAMLESS DATA PORTABILITY

You have the right to transfer your data to the platform of your choice. You now enjoy true digital mobility and have better control over your digital footprint.



STREAMLINED ACCESS

You no longer have to log in with one platform to access another.



UNBIASED SEARCH RESULTS

Your search results reflect relevance, not bias. You will discover the most pertinent products and services, unbiased from unwanted promotions.

Source:

https://digital-markets-act.ec.europa.eu/about-dma_en

DMA for businesses



APP DISTRIBUTION

The DMA unlocks closed ecosystems

You have the right to run your own app store; distribute your apps through alternatives appstores; and sideload your apps on all designated OS (iOS, Android mobile and Windows PC). You can communicate directly and freely with your customers. As an app developer you have more opportunities for your apps to become blockbusters.

INTEROPERABILITY

The DMA unlocks OS features

You can develop and offer innovative services to users of designated OS (iOS, Android mobile and Windows PC). You will no longer be unfairly blocked. Gatekeepers must allow interoperability free of charge.

ENSURING FAIR PLAY

The DMA addresses conflicts of interest

Data generated by your business on designated BigTech platforms won't be used by them to outcompete you.



FAIR RANKING

The DMA levels the playing field

BigTech's designated platforms can no longer unfairly promote their own products or services above yours in search results or ads.

EFFECTIVE ACCESS TO DATA

The DMA gives you back your data

Gain valuable insights from your data. With access to data generated by your services or user interactions on gatekeeper platforms, including performance metrics and user behaviour, you're equipped to make informed decisions. Users can also authorise you to port their data. Access this data in real-time and free of charge!

FAIR SALES TERMS

The DMA lets you run your business more freely

Take charge of your pricing strategy on designated gatekeepers' platforms! Bid farewell to restrictive conditions dictating your pricing practices elsewhere.

Source:

https://digital-markets-act.ec.europa.eu/about-dma_en

How **mature** should a market be for a standard to become **mandatory**?

How to allow innovation that acts in the **public interest**, and prevent **anti-competitive** practices (like *vendor lock-in*)?