



Blockchain & the next WEB


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Digitization Trends



A few years ago ...



... and today

20 Billion Devices

2016

40-50 Billion Devices

likely to reach 1 Trillion devices

2025

25 € - Solar Energy Price per kWh

1984

0,05 € (0)

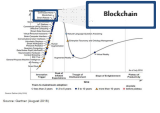
2016

2,4 Bill. Flaps

1984

12,000 Bill. Flaps of fastest Computer

2016




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


Largest Platforms

Platforms		Asset Owner
	Uber, the largest taxi company worldwide owns no taxis 1,000 Employees \$41 Billion	250,000 Taxi drivers in the US 
	Facebook, the most popular media company worldwide has no journalists 12,000 Employees \$230 Billion	3,500 Employees The New York Times Company 
	Airbnb, the largest provider of vacation homes owns no vacation home 600 Employees \$25.5 Billion	300,000 Employees \$28 Billion Hilton 
	Alibaba, the worlds most valuable market trader has no storage 35,000 Employees \$251 Billion	1.4 Million Employees \$246 Billion Walmart 


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Functionalities of the „web“

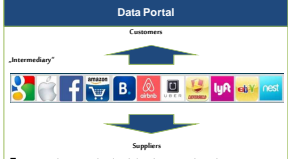
Search and Matching Algorithms		<ul style="list-style-type: none"> Search algorithms provide the required data aggregated according to the users needs from a data pool Matching algorithms are advanced search algorithms, which use simple data patterns to find possible matches between data
API's (Application Programming Interface)		<ul style="list-style-type: none"> API's allow integration of online services of third parties through interfaces These API's can be integrated into a Portal to enhance its functionalities and are provided by many large IT-companies Data processing, voice recognition, face recognition, search, knowledge building, linking, detection, E-Commerce support
Forecasting & Analytics		<ul style="list-style-type: none"> Big Data Analytics which offer data processing according to the stakeholder needs Forecasting by predicting along the processing and integrating of the available data
Blockchain / P2P Communities		<ul style="list-style-type: none"> Blockchain technology enables a liberalization of the Energy Market by providing all market participants to offer and use energy The Technology is based on a continuous virtual chain which saves all transactions which have been processed

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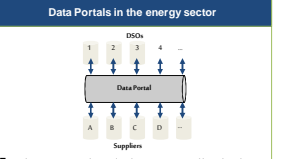
Data Portals (energy sector)

Data Portal



- Data Portals are intermediary data platforms between suppliers and customers
- The Data Portal becomes valuable due to the network effect - the more users the portal has the more data is available, the more important the Data Portal gets
- Data Portals provide an intelligent data processing representing the interests of suppliers as well as customers

Data Portals in the energy sector



- In the energy sector, Portals are evolving but are not yet comparable to other industries
- In the near future a vast amount of decentralized production and storage will be added to the energy system
- The volume of data that is used to manage this system will increase significantly
- Digital security and privacy need to be guaranteed
- Several scattered data portals in the energy sector are developing but no single point of truth

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B-I-T-S | The Next Web is ahead

Start of the Internet

Web 1.0	Web 2.0	Web 3.0	Web 4.0
<p>One-way communication</p> <ul style="list-style-type: none"> The Web 1.0 just delivers information for different stakeholders Central server stores the different inquiries 	<p>Two-way communication</p> <ul style="list-style-type: none"> The Web 2.0 allows social interaction between the web users Central server stores communities and information 	<p>Artificial Intelligence Big Data</p> <ul style="list-style-type: none"> The Web 3.0 is a semantic web, which allows the analysis of its users through Big Data, Cookies etc. Central server stores communities and information 	<p>Decentralized system</p> <ul style="list-style-type: none"> The Web 4.0 is a decentralized system where all information is saved decentrally No central instance is used to control or administrate the Web

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B-I-T-S | Blockchain Related Links

Panel discussion – R3, Digital Asset, and Symbian leads:
<http://cardoflaw.com/2016/08/08/panel-discussion-r3-digital-asset-symbian-leads/>

Ethereum links, introducing Blockchain:
https://www.reddit.com/r/ethereum/comments/2uyvz/casper_guide_almost_all_the_links_youll_need_to/

MIT Law course videos – links to 173 courses:
<https://www.youtube.com/watch?v=by6U0K3VtE>

MIT Law 2016 Decentralized Applications for Business & Law
<https://www.youtube.com/watch?v=by6U0K3VtE>

MIT IAP Blockchain Prototypes, Jan 12, 2016
<https://www.youtube.com/watch?v=by6U0K3VtE>

What is a Decentralized Autonomous Organization (DAO)?
<http://www.coindesk.com/what-is-a-decentralized-autonomous-organization/>

Knowledge graphs
<https://github.com/stephenjgo>

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