Chart in focus

Homepage, Happy 25th Birthday to you! Where are we now?

December 2, 2015

In November 1990, i.e. 25 years ago, the first homepage was made available online in Cern, Switzerland by the founder of the World Wide Web, Tim Berners-Lee (http://info.cern.ch/). Since then, digital structural change has transformed our daily lives and we are permanently adapting our behaviour in all walks of life.

The pervasiveness of internet-driven – and thus data-driven – technologies, algorithm-based analytical methods and virtual infrastructures is breathtaking. There isn't a single household, country, sector, value chain or business model that hasn't felt their impact. Digital structural change compels us to reexamine the way we think – and about more than just the technological transformation process. However, the question that remains is whether we can also keep up with the pace of these constantly accelerating digital developments.

The internet has introduced a myriad of new terms into our vocabularies – and the number continues to increase. Even though words such as the cloud, big data, the internet of things, self-learning algorithms and Industry 4.0 are now used routinely, and at virtually every opportunity – especially in all online and offline media – many of us have difficulty explaining in our own words what these (partly new) terms actually mean.
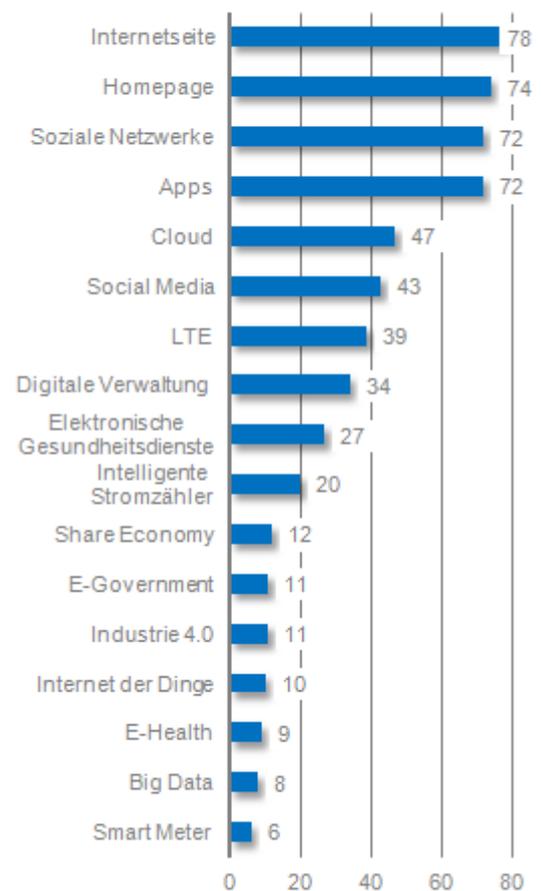
Unfortunately only 8% of the population in Germany can explain what "big data" is, according to a survey conducted by the Initiative D21 in association with TNS Infratest; the figure is 12% for the term "sharing economy", which is the subject of increasingly heated debate due to the emergence of peer-to-peer mechanisms. By contrast, the results are better for the terms "website" (78%) and "social networks" (72%). But in this regard it is striking that a smaller proportion of the German population can explain the English terms than the German terms (homepage and social

Internet expertise: which terms can you explain?
% of German population aged >14 years (n=30,015)

Term	%
Internetseite	78
Homepage	74
Soziale Netzwerke	72
Apps	72
Cloud	47
Social Media	43
LTE	39
Digitale Verwaltung	34
Elektronische Gesundheitsdienste	27
Intelligente Stromzähler	20
Share Economy	12
E-Government	11
Industrie 4.0	11
Internet der Dinge	10
E-Health	9
Big Data	8
Smart Meter	6

Sources: Initiative D21 e.V., TNS Infratest

media). Although both the terms and many of the technologies are actively used by millions of people every day, only a few are able to bring these terms to life. How is the German economy meant to successfully make the transition into the digital era if its citizens cannot even explain the terminology?

That is why we urgently need nationwide education campaigns. These education campaigns must aim to provide young people with the requisite internet and media skills. In the early stages of their education children and youths should already be learning about, for example,

* the ramifications of posting personal data on various social network platforms,

* the meaning of the terms hacking, net neutrality and preventive data retention,

* the protection that can be provided by cryptographic encryption technologies,

* how a self-learning algorithm functions and

* the importance of intellectual property rights (copyright, patents) in the digital age.

We need to implement these educational measures now in order to prevent digitalisation from fading away behind a thicket of buzzwords and instead enable it to be used and understood routinely for the benefit of the many. This is the only way that we can look forward to our (future) private and working lives with an enlightened grasp of digital technologies, the way they operate, and the opportunities and risks that they present. Equipped with the requisite capabilities and skills we can grow up into a modern economy with informed, digitally competent, competitive and, above all, data-conscious citizens.

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