

# Digital Ralf T. Kreutzer Karl-Heinz Land Darwinism

Branding and Business Models in Jeopardy



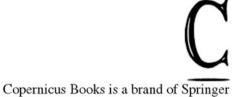
## Digital Darwinism

## Ralf T. Kreutzer • Karl-Heinz Land

# Digital Darwinism

Branding and Business Models in Jeopardy





Ralf T. Kreutzer Berlin School of Economics and Law Berlin Germany Karl-Heinz Land neuland GmbH & CoKG Cologne Germany

Translation from German language edition: *Digitaler Darwinismus* by Ralf T. Kreutzer and Karl-Heinz Land

© 2013 Springer Fachmedien Wiesbaden Springer Fachmedien Wiesbaden is a part of Springer Science+Business Media All Rights Reserved

ISBN 978-3-642-54400-2 ISBN 978-3-642-54401-9 (eBook) DOI 10.1007/978-3-642-54401-9 Springer Heidelberg New York Dordrecht London

Library of Congress Control Number: 2014950109

#### © Springer-Verlag Berlin Heidelberg 2015

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. Exempted from this legal reservation are brief excerpts in connection with reviews or scholarly analysis or material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work. Duplication of this publication or parts thereof is permitted only under the provisions of the Copyright Law of the Publisher's location, in its current version, and permission for use must always be obtained from Springer. Permissions for use may be obtained through RightsLink at the Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Printed on acid-free paper

Copernicus Books is a brand of Springer

Springer is part of Springer Science+Business Media (www.springer.com)

It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change.

Charles Darwin
70% of the Fortune 1,000 Companies will be replaced in a few years. Not because they didn't get enough fans on Facebook, but because they didn't adapt to the new networked society.

**Brian Solis** 

#### **Foreword**

Dear readers.

**Digital Darwinism**—Certainly a pithy term to describe the changes looming ahead. But in the economy, it is about nothing else at the moment. Comparable to the **first industrial revolution** due to the invention of the steam engine in the middle of the eighteenth century and the **second industrial revolution** caused by the invention of electricity and the electrification involved towards the end of the nineteenth century, we are now in the middle of the **third industrial revolution**, driven by the omnipresent digitalization. This time, too—as in the previous revolutions—it's all about a profound and permanent re-creation of economic and social conditions. Our entire life circumstances and working conditions are changing massively.

For this reason, it is again all about a **fight for survival**, which companies successful for centuries have already lost, and the outcome of which for companies—previously—spoiled by success such as *Sony*, *Nokia*, and *Blackberry* still remains questionable. It thus becomes apparent that it is no longer about size, it is not necessarily about speed, and it is not only about the extent of conforming or strength. Today, it is more about:

#### The survival of the smartest!

How can companies adapt to the rapidly and radically changing market conditions? How are the companies and their employees coping with the rapidly changing business models? For digitalization and social media are not primarily about changing company communication—as frequently presumed on the management level! Social media, big data, increasing digitalization, and much more are triggering an outright tsunami, which will destroy large parts of today's economy! This tsunami represents an attack on business models, sales concepts, marketing, communication, service, market research, as well as in general on the way we interact with customers and on markets! After this storm, nothing will be the same as it was before! We will have to say farewell to a lot of practical knowledge acquired with great effort!

viii Foreword

This book was written to give food for thought about what **effects digitalization and social media** have on **established business models** and **successfully introduced brands**. It is our intention to waken up and at the same time set creative impulses so that new avenues can be explored, for the challenges lying ahead of us, our companies, and thus also directly ahead of our employees in the years to come are gigantic. The key challenge is to master the **digital transformation**.

So far, only a few managers were sanctioned for not being active in social media—in comparison to those who were reprimanded for the mistakes they made there. Yet that will change faster than many think. Then the **inactiveness in social media** will be reprimanded.

*Erik Qualman* says: "We don't have a choice whether we do social media, the question is how well we do it." The question about the **ROI of social media** is sometimes answered as follows: "The ROI of social media is that your business will still exist in 5 years!" This is why the term ROI in the context of social media is filled with additional content: ROI is to be understood as the **Risk of Ignorance**. Or as *Brian Solis* so aptly put it: "The End of Business as Usual" and "Engage or die!"

In any case, it is high time to first think and then act. And yet the core questions are: What effects will digital Darwinism have on our companies? And how does our **strategy for managing** the challenges lying ahead of us look?

- Ignore?
- Fight?
- Be overwhelmed?
- · Or what else?

It is our aspiration to not only raise exciting issues but also to convey concrete ideas to promote your creativity and stimulate solution processes in your companies.

Once again, the saying goes: Technology changes. Economic laws don't!

So let us avail ourselves of the new technological possibilities to build up a **future-oriented success strategy** within the existing economic laws! The fact that more and more contents—generated by yourself and by customers—are available fully digitalized makes many technological restrictions become obsolete and creates entirely new fields of design. It is necessary to recognize these as early as possible to start the process of digital transformation.

One thing needs to be clearly defined at this point: tackling developments "revolving around social media" merely because everybody is is not enough. The main question for all companies even in this context is: Can we achieve **higher added value** for our own company if we deal with this issue? Marketing should make a decisive and value-adding contribution towards this—as should be adopted by every marketing concept. The Olympic principle—"It's the taking part that counts!"—thus does not apply here!

Foreword ix

In the course of writing this book, we have realized the following five design ideas:

- Fun: Having fun reading—as it is, many of you will be reading (having to read) this book in your leisure time!
- Food for thought: Aspects to think about, to continuously stimulate your own considerations!
- Think boxes: Concrete questions to stimulate the process from becoming aware to acting!
- Remember boxes: Highlights worth remembering!
- Quick wins: Room for ideas that can be implemented straight away! This is where spontaneous ideas and solutions can be noted down right away so that they don't get lost.

Yet, with this book, we would also like to even convey **proposals for action and solutions** and inform you about **best practices**. And overall, we would like to encourage you to start with your **own finger exercises** as long as the market is not demanding ready-made concepts—and rather forgives the mistakes companies make! Yet, the way *Mark Zuckerberg*, founder and CEO of *Facebook* put it, still applies:

"Done is better than perfect!"

Hopefully you will be able to say at the end of this book: yes, we feel fit to be able to survive the **era of digital Darwinism** or we now know ways of ensuring the necessary process of a **digital transformation**!

We wish you every success doing so!

Bonn/Königwinter, Berlin Cologne, NY

Ralf T. Kreutzer Karl-Heinz Land

## **Contents**

1	Why the Digital Revolution Is Challenging You and Why You Have to Act Now	1
2	Digital Darwinism and the Social Revolution: What Basic Needs of Man Represent the Fuel of the Revolution on the Part of the Customer?	41
3	Big Data and Technology: Drivers of the Information Revolution on the Part of the Companies and Accelerators of the Era of	7.7
	Cooperation	77
4	How the Social Revolution Is to Be Managed	99
5	How Marketing Becomes the ROI Driver Within the Company	129
6	Confidence: The Latest Currency in Marketing and Management	147 151
7	Social CRM: The New Rules of the Game in Leading Customers	163
8	Why Marketing Is Becoming a Service	193
9	The Necessity of Change Management: Why Our Traditional Communication and Organizational Structures Are Becoming	
	Obsolete	209
Αp	ppendix	249
D۵	forences	251

### The Authors

**Prof. Dr. Ralf T. Kreutzer** is Professor of Marketing at the *Berlin School of Economics and Law* and a Marketing and Management Consultant. He worked in different leadership positions at *Bertelsmann*, *Volkswagen*, and *Deutsche Post* for 15 years before being appointed Professor of Marketing in 2005.

*Prof. Kreutzer* has set significant impulses concerning the various topics evolving in the fields of Marketing, Dialog Marketing, CRM/Customer Retention and Relationship Management, Database Marketing, Online Mar-



keting, and Strategic and International Marketing by regularly providing publications and lectures and acting as consultant to a wide range of national and international companies.

His most recent publications include "Kundenclubs & More" (2004), "Marketing Excellence" (2007), "Die neue Macht des Marketing" (2008), "Praxisorientiertes Dialog-Marketing" (2009), "Digitaler Darwinismus—Der stille Angriff auf Ihr Geschäftsmodell und Ihre Marke" (2013), "Digital Darwinism—The silent attack on your business model and your brand—*the* ThinkBook" (2014), "Praxisorientiertes Online-Marketing" (2nd edition, 2014), and "Praxisorientiertes Marketing" (4th edition, 2013).

#### Contact:

Prof. Dr. Ralf. T. Kreutzer

Professor of Marketing at the Berlin School of Economics and Law and Marketing and Management Consultant

Alter Heeresweg 36 53639 Königswinter

Germany

Phone: +49 (0) 171–8668285 Email: kreutzer.r@t-online.de xiv The Authors

**Karl-Heinz Land** is founder & CEO, Digital Darwinist & Evangelist at *neuland*. He is considered a visionary and advises companies concerning questions of digital transformation and vision.

Main foci: Social Media, Mobile, Big Data, Analytics, and e-Commerce. The repeatedly awarded entrepreneur and thought leader was accorded the title of "Technology Pioneer" by the *World Economic Forum* in *Davos* (WEF) and *Time Magazine* in 2006.

At *neuland*, his mission is to support organizations in managing the digital transfor-



mation successfully. *neuland* helps companies in making full use of the potential of the digitization. *neuland* assists in recognizing the need of change, adopting a digital strategy, and implementing successful projects of digital transformation.

Karl-Heinz Land has been working as Senior Executive, General Manager, CEO, and Executive Vice President EMEA in internationally leading Technology enterprises—incl. among others *Oracle*, *BusinessObjects*, *Microstrategy*, and *VoiceObjects*.

Contact: neuland STARTPLATZ Im Mediapark 5 50678 Cologne Germany

Phone: +49 (0) 221 97584041 Email: khl@neuland.me http://www.neuland.me

1

# Why the Digital Revolution Is Challenging You and Why You Have to Act Now

Until recently, we were able to laugh our heads off at the following definition of social media marketing as an important aspect of the digital revolution. **Social media marketing is like teenager sex**: everybody is talking about it, nobody really knows how it works, and when it happens, we ask: that was it?

Today, this explanation makes us choke on our laugh, because it no longer suffices to be satisfied with such explanations in the complex world of social media and make yourself s at home in the **circle of the ignorant**. For—according to the key results of a study by McKinsey (2012) interviewing 200 companies—the **relevance of social media** is considerable: After all, 70 % of the large- and medium-sized companies place high strategic significance on social media. But only 5 % are satisfied with their performance—in comparison to the potential social media offer as a whole (cf. McKinsey, 2012, p. 11).

Based on this study, there is a group of **social media pioneers**, which has been implementing a wide range of social media applications for an average of 2 years and, in doing so, determined an above-average impact on their business model (cf. Fig. 1.1). In contrast to that, there is the group of **social media newcomers**, who hardly use social media and thus also only reveal a limited background of experience.

In the acronym **SOCIAL**, *McKinsey* has clearly elaborated the differences between these two groups (cf. McKinsey, 2012, p. 12):

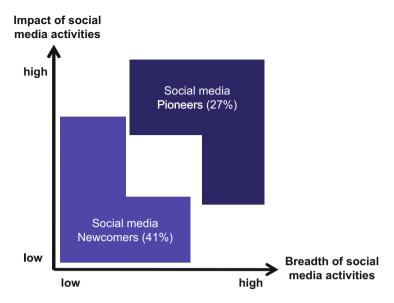
Strategy: The existence of a cross-corporate social media strategy based on strategic principles.

Organization: The engagement of full-time employees and provision of budgets for social media activities.

Criteria-based platform selection: Social media platforms were selected according to specific criteria—derived from the social media strategy.

Integration: The integration of social media activities in the entire value added chain.

Awareness: High awareness for social media in the entire organization.



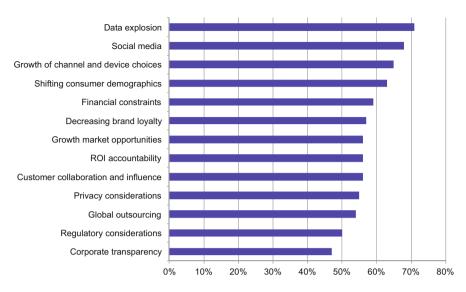
**Fig. 1.1** Pioneers and newcomers to social media—McKinsey Social Media Excellence Survey (n = 200) (*Source* Author illustration, data source: McKinsey, 2012, p. 11)

Leadership: Involvement in social media with top management priority—high involvement of the senior executives.

Key question: Are the aspects mentioned already on the **agenda of the CMOs** (Chief Marketing Officers)? What are in their opinion the **central challenges** in the years to come? And how well prepared do the CMOs feel they are for these challenges? The answers to these questions are both enlightening and shocking at the same time! In the scope of the CMO study by *IBM*, 1,734 CMOs from 19 sectors in 64 countries were questioned about this. The **four greatest challenges** named by the CMOs were (cf. IBM, 2011a, p. 3):

- · Data explosion.
- · Social media.
- · Growth of channel and device choices.
- Shifting consumer demographics.

These four central challenges alone underline the fact that existing **business models** and **established brands** can be **shaken to their very foundations** by the changes looming ahead. For this reason, it is important to ask how well prepared the CMOs feel for these challenges. Or to put it the other way round: how many CMOs do **not** feel sufficiently prepared? Figure 1.2 shows the figures. Based on our talks with many CMOs all over the world, we know that the situation has not changed significantly since the *IBM* study was published.



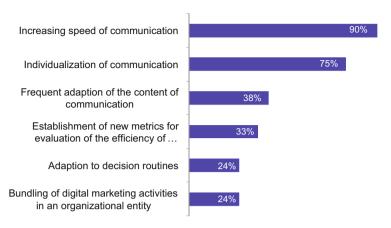
**Fig. 1.2** Percent of CMOs reporting underpreparedness (*Source* Author illustration, data source: IBM, 2011a, p. 2)

In our view, the results show a dramatic call for action:

- 71 % of CMOs report underpreparedness according to data explosion
- For 68 % of interviewed CMOs, social media are a mystery
- The **growth of channel and device choices** is a **challenge for** 65 % and they have found no way to manage it yet
- And 63 % feel not well prepared for the shifting consumer demographics

What consequences these changes have in the classic marketing field of **communication** is shown here: according to research by *Procter & Gamble*, in 1965, three TV spots sufficed to reach 80 % of American women aged between 18 and 49. In 2012, as many as 97 spots were necessary to achieve this—and still counting (cf. Einicke, 2012, p. 9). Here we can see what direct consequences the **multiplication of media offers** as well as the **fragmentation of media exploitation** stimulated by this have.

But how can the necessary **change processes** be initiated in the companies when the top representatives of their kind—in this case the CMOs themselves—do not feel up to this issue? For especially in the case of the abovementioned **major challenges**, the CMOs themselves acknowledge having **major deficits**. In our opinion, this is an **honest** but also **daunting evaluation**. It calls for solutions, ideas, and information, in order to be able to stand on the winning side in the forthcoming or prolonged battle of choice. This book makes a significant contribution to survival in the era of digital Darwinism.



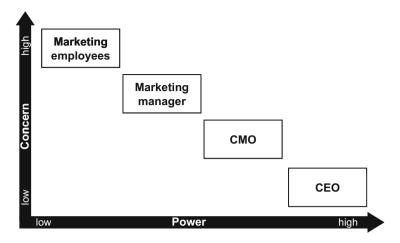
**Fig. 1.3** Areas in marketing which are most affected by the Internet (n = 100 managers, multiple replies possible) (*Source* Author illustration, data source: Camelot Management Consultants, 2012, p. 19)

The results presented can be substantiated even further. A survey conducted in 2012 interviewing 100 managers in various sectors shows the prevailing concernment more impressively (cf. Fig. 1.3). For many respondents, the increased **speed of communication**, the **individualization** of it, as well as the **frequent adaption of the contents** are the most far-reaching changes. At the same time, it becomes obvious that there is a lack of **metrics**, in order to be able to capture successes and failures promptly. All of this, after all, imperatively leads to **changes in the operational and organizational structure of marketing** itself (cf. Chap. 9 for more detail concerning the digital transformation).

But how is the affinity to social media in our own company? How great is our **interest in the utilization of social media**—privately and for the company—differentiated according to company hierarchy? And what **power regarding the utilization of social media** do these different groups have for the own company? The **interest-power matrix** shows a distribution of the different key players typical for many companies (cf. Fig. 1.4).

It thus becomes obvious: Those employees with the greatest affinity to social media frequently (here, marketing employees) have the least power to promote the utilization of it for their own company. And the key players with the greatest plenitude of power (here, CMOs and CEOs) are usually the most reserved towards social media—a typical dilemma. Yet if a company is not attentive now, a **stairway to hell** is predestined.

▶ Remember Box The journey into the new media should not be started without the convincing commitment by the company management!



**Fig. 1.4** Concern and power dimensions combined in a matrix—using the example of social media (*Source* Author illustration)

#### **Think Box**

- How are the social media dealt with in my company?
- How do I place myself in this matrix—and for what reasons?
- Who is putting the brakes on and who is encouraging the possible utilization of social media in my company?
- Which formal, substantial, and/or technical "defense arguments" are being brought forward in my company—and how sustainable are they?

So how great is the pressure to act for the own company now? An eye-opener for this purpose is the answer to the question How widespread is the **use of the Internet and social media** in today's households? Exciting results on this are:

- In 2012 about 274 M people in the USA use the Internet—in comparison to ca. 245 M in 2011 (cf. Statista, 2013a). According to Forrester studies, the **online penetration** rate of the US population is stagnating at 79 % in 2012 (as in 2011). **Daily Internet usage** is risen by 5 % according to a study with close to 60,000 US online adults (in 2011 78 % and in 2012 85 %; cf. Lardinois, 2012).
- Another study shows that in August 2011 78 % of US-American adults were online—in comparison to about 60 % in 2001 and 14 % in 1995. There are huge growth rates in all age groups. The highest increases are in the age cohort of the people older than 50 years. In June 2000 41 % of the 50- to 64-year-old US-Americans use the Internet, while at the end of 2012, 77 % does so. At this time also 54 % of the 65+ age group use the Internet—according to a study based on more than 2,000 adults (cf. Zickuhr & Smith, 2012, p. 4 f.; Pew Internet and American Life Project, 2013). The segment of the silver surfers is thus taking

on greater significance—the Internet has long passed being a domain for young people only.

- The mobile usage of the **Internet** increases as well. In 2011 more than 31 % of the US population uses the **Internet** mobile—in comparison to about 25 % in 2010—and it is expected that in 2015 almost the half of the population will use it in this way (cf. eMarketer, 2011). Another study—based on more than 2,000 interviewees—shows that already 55 % of all US cell phone owners—which are 88 % of the population—use the cell phone for going online (cf. Smith, 2012, p. 2).
- It is important that, with all these developments, the increasing use of mobile terminal devices such as tablet PCs and smart phones does not replace stationary access but facilitates new types of use. More than one third of US tablet owners and almost one quarter of US smart phone users use the tablet/smart phone as second screen while watching TV for looking up information (cf. Winslow, 2012).
- Another study with 2,540 Internet users (8–64), matched to the US Census with regard to age and gender, shows that 85 % use their tablet and/or mobile phone as **second screen while watching TV**. 66 % do so as **third screen** (cf. OPA, 2012, p. 26).
- In 2012 about 44 % of US-Americans had a **smart phone**—in comparison to 31 % 1 year before—which is mostly common in the age group of the 25–34 years old (cf. Google, 2012, p. 2, 6). In 2012, **tablet PCs** are used by 19 % of the US population—an increase by 100 % since 2011 based on a survey with more than 60,000 interviewees (cf. Lardinois, 2012).
- Thereby the behavior of the usage of a smart phone and a tablet is quite different. US-Americans use their **smart phone** most often for emailing (75 %) and browse the Internet for entertaining aspects (73 %), while they use **tablets** mostly for gaming (84 %) and searching for information (78 %; cf. Google, 2012, p. 16).
- The study by OPA (2012) shows that 94 % of **tablet users** weekly use it for accessing content/information, 67 % to going online, and 66 % for checking emails. In this study, gaming was named just on the fourth place with 61 %. Which screen is the more dominating one in each case is determined by the respective context.

This makes it clear that not only **user behavior** is changing, it also varies to an increasing extent depending on the respective **context**—and **change processes** are extending through all age groups. All in all, how can we recognize the associated **challenges**?

In the beginning there was the word!

Which words challenge us today? New **buzzwords** are circulated every day—almost faster than we can comprehend and process their content. Some are

forgotten fast. Others can be construed as **weak signals**, which indicate strategic changes at an early stage—and which we should pay particular attention to, because if we succeed in recognizing their relevance faster than others do and act accordingly, this can lead to a decisive **competitive advantage**. Yet which buzzwords should we attach particular importance to? **Disruptive society** is one such key buzzword. The fact behind it is that what applied for a long time won't apply much longer.

#### More of the same!

**Discontinuities** and **structural interruptions** determine the corporate land-scape. That is why one thing is for sure: the **digital revolution** is not imminent but is already unfolding the **power of creative disruption** in many sectors today. New stars are appearing in the corporate skies such as *Samsung*, *amazon*, *Google*, and *Facebook*, and stars that shone for a long time are disappearing. Who would have thought merely 3 years ago that *Nokia* would be pushed from the pedestal of the world's leading mobile phone manufacturer—and, at that, by a company that did not have any mobile phones whatsoever in its range until 2007, namely, by *Apple*? And who had *Apple* cut the wings off a few years before that with a product that previously hadn't been part of the computer manufacturer's service offering? *Sony*—cut down by an ingenious *iPod*! And who with their operating system for smart phones is driving *Nokia* and now even *Windows* in front of them? *Google* with *Android*—a provider that was not even active in this market until 2008!

If we analyze the causes of the success of *Apple*, then it is not only the convincing hardware that is the key to success. *Apple* in fact was successful thanks to *iTunes* as well as the setup of an extensive app store, setting up a so-called ecosystem. In this ecosystem, relevant offers are made to the customer in a closed system, which—from *Apple*'s point of view—is to be left as seldom as possible. This makes the following clear: by offering merely hardware, *Apple* wouldn't have temporarily become the world's most valuable company. It was the **consistent thinking in user cycles**—oriented towards **added value for the customer** that can be experienced immediately. As a consequence, competition can arise from diverse sectors both today and tomorrow—and frequently, only those who offer a (closed) user system with persuasive customer benefits in addition to attractive hardware have the lead. *Google* is creating an additional ecosystem—and it's always hard for us to go without!

#### Think Box

- Which sectors or from which companies do the greatest risks threatening my business model come from?
- Who has the potential—especially those who do not belong to my previous competitors—to break into my fields of services?

(continued)

- Where is my company vulnerable enough to alleviate an attack on my business model and my customer relations?
- Who has been entrusted with monitoring these developments—or who should be entrusted with this?

Figure 1.5 shows the **speed at which technologies are accepted** in general and also especially that of **social media** when gaining users. Whereas **radio** and **television** took 38 and 13 years, respectively, to gain over 50 million users, the **Internet** succeeded in doing this in 4 years, and the *iPod* in three. *Facebook* assembled a user community of 50 million after 1 year—and *Twitter* after as few as 9 months. The acceptance of *Google*+ was even faster and was able to register 50 million users after only 3 months. And the driver behind this increasing speed of accepting technology? **A perceived relevance from the perspective of the users**.

This makes it clear that new technologies have never been able to gain acceptance as fast as they have now! The reason for the increasing **speed in accepting innovations** lies not only in the worldwide intercommunication which supports a diffusion of innovations across cultures, countries, and languages. The key condition for innovations to be accepted by wide masses is "added convenience"!

▶ Remember Box Convenience is the driver of changes. And convenience is also the prerequisite for the acceptance of change. In order to achieve this convenience for users, we can be guided by a guideline by Steve Jobs for Apple: Simplify! Simplify! Simplify!

For companies, **technologies** likewise represent opportunities if they rely on these technologies. However, technologies can also embody risks threatening companies, if the companies do not recognize their relevance for the users and do

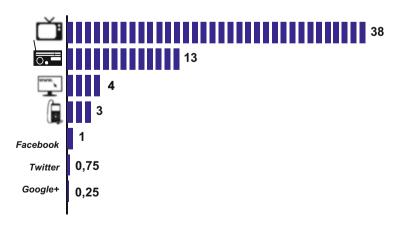


Fig. 1.5 How long does it take to gain 50 million users?—in years (Source Author illustration)

not rely on the corresponding technologies fast enough. Yet, which technologies should attention be directed to now—and which are to be disregarded? The annually updated **Hype Cycle for New Technologies** by Gartner (2013a) provides an important guide for companies. It shows which **phase of their life cycle** relevant cross-sector technologies are in. These technological life cycles are defined based on the **expectations** placed on the various technologies. This makes it visible which technologies are possibly overrated and which have already become an established tool or are turning into one (cf. Gartner, 2013a). In terms of the expectations of the technologies, *Gartner* defines five different phases which **shed light on the status of acceptance of new technologies on the market.** 

#### Technology triggers

• In this phase, the first reports of the success of new technologies are published and readily taken up by the media. Whether these technologies will enjoy sustainable application cannot yet be foreseen at this early stage.

#### Peak of inflated expectations

• In this phase, success stories are published to further encourage the expectations of a new technology. At the same time, the first failures when using the technology become visible, which causes the expectations to reach their limits. The technological application still remains restricted to a few companies.

#### Trough of disillusionment

This trough in the technological life cycle is based on the insight that many
expectations of new "miracle weapons" were not fulfilled. In this phase, only
those providers of technology survive who are able to convince the early
adopters of the advantages of their technology in the long run. The other
providers are ruled out of the competition.

#### Slope of enlightenment

This is where it becomes increasingly visible how a technology can be utilized in
a useful way. Technological developments of the second or third generation of
the initial technology are offered and increasingly taken on by companies open
for innovations and integrated in the workflow.

#### Plateau of productivity

The technology is now used on a wide scale because its advantages are not only
obvious but it also really pays off. The use as mainstream technology is
preprogrammed. The use in more and more companies is now only a question
of time.

In the Hype Cycle, *Gartner* also presents a **prognosis** as to when the plateau of productivity is likely to be reached. In the context of selecting the topics for this book, attention should be directed towards selected **technological developments**. The Hype Cycle shows that the topic of big data is on the brink of their peak of expectations. In the case of **big data**, it is assumed that it will have reached its plateau of productivity in approx. 5–10 years (cf. Chap. 3). The **Internet of things** will not only take a bit longer to reach its peak of expectations; it is expected that the plateau of productivity will not be reached until after 10 years.

Augmented reality and NFC (near field communication) are in the phase of consolidation as they have already passed their peak of expectations. Virtual reality, gesture control, and predictive analytics are already on their way to becoming a firm part of many corporate concepts and to accommodate the (reduced) demands made of them. In view of the dynamics prevailing here, every company should check for themselves what significance these developments have for their own company.

#### **Think Box**

- Which of the developments named in the Hype Cycle represent an opportunity for my company?
- Where are risks to be expected, if any?
- What further information is necessary in order to determine the possible effects of new technologies on my company?
- Who is responsible for such an impact assessment of technologies?
- With which measures can we react to particularly urgent challenges?

Gartner groups some technologies in so-called tipping point technologies, i.e., in technology groups that are at a watershed. These can have a huge impact on the business world or the entire society (cf. Gartner, 2012). This includes the so-called smarter things that are connected with each other via the Internet of things. But what exactly is meant by this "Internet of things"? This means clearly definable objects that are connected to each other via the Internet. Newer types of communication such as via RFID (radio frequency identification) or now via NFC (near field communication), i.e., wireless communication, alleviate the exchange of information and, in the case of products, can replace the use of bar codes. If objects are equipped with radio tags, then the data received in this case can, for example, determine whether an offer in a store is running out—and where necessary, an order can be automatically triggered. If in everyday life, people are equipped with these radio tags (e.g., via their smart phone), they can easily be identified and localized and thus highly individualized messages are sent to them—based on known preferences.

Ashton (2009), the inventor of the term "Internet of things," has summarized the key contents precisely: "Today computers—and, therefore, the Internet—are almost wholly dependent on human beings for information. Nearly all of the

roughly 50 petabytes (a petabyte is 1,024 terabytes) of data available on the Internet were first captured and created by human beings—by typing, pressing a record button, taking a digital picture or scanning a bar code. Conventional diagrams of the Internet include servers and routers and so on, but they leave out the most numerous and important routers of all: people. The problem is, people have limited time, attention and accuracy—all of which means they are not very good at capturing data about things in the real world.

And that's a big deal. We're physical, and so is our environment. Our economy, society and survival aren't based on ideas or information—they're based on things. You can't eat bits, burn them to stay warm or put them in your gas tank. Ideas and information are important, but things matter much more. Yet today's information technology is so dependent on data originated by people that our computers know more about ideas than things.

If we had computers that knew everything there was to know about things—using data they gathered without any help from us—we would be able to track and count everything, and greatly reduce waste, loss and cost. We would know when things needed replacing, repairing or recalling, and whether they were fresh or past their best. We need to empower computers with their own means of gathering information, so they can see, hear and smell the world for themselves, in all its random glory. RFID and sensor technology enable computers to observe, identify and understand the world—without the limitations of human-entered data. . . . The Internet of Things has the potential to change the world, just as the Internet did. Maybe even more so."

The multitude of information that can be generated via the Internet of things will continue to reinforce the trend towards big data. Data from various sources, generated by mobile or fixed-line access, are being increasingly interlocked via uniform protocols (in particular the Internet protocol IP). This makes data of a previously unknown quantity and quality available for analyses. The combination of such data streams with intelligent analysis tools—applied in real time—enables highly personalized customer approaches. Essentially, it is about the presentation of specific offers that not only match a user's profile. A good CRM—i.e., a customer relationship management—has been able to do that up till now. The opportunity being offered here rather entails directly matching the contents to be communicated with the respective **context of the user**—in time, space, and content (cf. Chap. 7). How important timing and context can be is illustrated by the following example: The information that there is a speed camera in Lombard Street in San Francisco is not very useful if this information does not reach me until my speeding has already been recorded on a police photo. Yet, if the information reaches me a few minutes earlier because the analysis systems have recognized that I am on my way into Lombard Street, the relevance of this information increases dramatically. However, this only applies if I am not traveling by bus, taxi, or bicycle. On the other hand, should I be traveling around New York, such information is of no relevance to me whatsoever.

► Food for Thought The value of information changes with time and space—and consequently with the respective context.

Many business models are still based on **static information structures**. To this end, information is gathered, stored in databases, and updated—annually or never (as experienced in major customer projects). Today, however, we have the opportunity that remains untaken to distinguish oneself in competition by accessing **dynamic information structures**, because offers can be presented with an unachievable one-to-one precision. For now, there is not only more and more information available about potential customers and customers but also more and more precise information. And this is happening at a speed that, until recently, was deemed impossible, facilitating **real-time marketing** (informational). At this point, may we refer to *Facebook*, the world's largest and best (because daily) maintained database of preferences (cf. Chap. 7 for more details).

The question we should be asking ourselves is: How can we make use of this **information to create added value for customers**, so that the customer generates greater **added value for our company**? In Japan, streams of passers-by are already being screened in order to adapt the contents of the large screens depending on the insights gained by this (cf. Chui, Löffler, & Roberts, 2010, p. 1). This, in turn, can accomplish something: a **greater relevance of the contents of the adverts broadcasted**.

Hence, what is the new challenge?

#### In Search of Relevance!

If the preferences of customers can be analyzed in real time combined with a certain location where the person happens to be, **dynamic triggers** (e.g., place of purchasing, price, and product availability) can be sent by mobile, in order to send the all-deciding trigger to purchase—at exactly the right moment and at the right place. The basis for this is, of course, that we have received **permission** from our customers to contact them in this way. **Check-in services** such as *Foursquare*, where you check in at certain locations (e.g., at *Starbucks*, at *McDonald's*, or at the airport), actively make such information available to the users.

Remember Box Our customers and potential customers are permanently leaving behind digital footprints on all channels: by mobile, in stationary shops, when surfing on the Internet, and during activities in social media.

Even if, in the course of neuro-marketing, the long sought-for **buy button** has still not been found in the head of the customer, one thing does hold true: by creating a proximity of promotional influence in time, space, and content, the **relevance of our message** for the recipient increases dramatically—and with it, the probability of purchasing. This correlation becomes clear in Fig. 1.6. The great challenge consists in reading the **single point of truth** from our target person's