MANAGING DIGITAL TRANSFORMATION

Per Andersson, Staffan Movin,
Magnus Mähring, Robin Teigland,
and Karl Wennberg (eds.)

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Karyn McGettigan, Language Editor

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mtc
STIFTELSEN MARKNADSTEKNISKT CENTRUM

In his central role at the Wallenberg Foundations,
Peter Wallenberg Jr has furthered a broad range of important research and research-led education initiatives at the Stockholm School of Economics (SSE) and its Institute for Research (SIR). This indispensable work has also helped create a fertile ground for research on digital innovation and transformation: a phenomenon currently experienced, shaped, and managed in and between organisations and throughout society.

This is the topic of this book, which we dedicate to him.

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Every year since 1992, the Stockholm School of Economics Institute for Research (SIR) has published an Annual Research Anthology, and this year SIR is publishing the book in cooperation with MTC (Stiftelsen Marknadstekniskt Centrum). The purpose of the SIR Annual Research publication is to enable managers and practitioners better understand and address strategically important challenges by showcasing SSE research on a selected topic of importance for both business and society.

This year's book, *Managing Digital Transformation,* features authors from academic areas across SSE together with representatives outside the institution. The book's eighteen chapters show the strength and breadth of SSE's research within the area of digitalization and reflect the importance that SSE places upon closely linking research to practice and on investigating the leadership challenges and their implications in order to support value creation in society.

Participating in the many ongoing research projects at SSE and the multitude of aspects of digital transformation addressed in the various chapters has been very rewarding for the editors. We would like to thank all the authors for their hard work and cooperation throughout the project. In finalising this book, we have relied upon the expert work of Karyn McGettigan for language editing, Petra Lundin for layout and graphic design, and Marie Wahlström for digital access to the book. We are, indeed, most grateful for their excellent and diligent work.

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Finally, we would like to thank all the companies and organisations for sharing their challenges and engaging in dialogue and research collaborations with us so that we can produce more solid and relevant research to help better our society.

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Stockholm, January 2018
Per Andersson, Staffan Movin, Magnus Mähring, Robin Teigland, Karl Wennberg

Introduction

One of the hottest research topics lately is digitalization. Many research projects are focusing upon different perspectives. Gone are the days when digitalization or business implications of ICT were just about increasing efficiency. Instead, the ripple effect of digital development can now be felt wider and deeper than ever before. The way in which business is conducted and how it creates value, as well as how corporations can become more efficient and sustainable, are all implications of digitalization. Adapting to new demands and taking advantage of the plethora of possibilities, however, is not always easy.

Managing digitalization and the transformation of business always involves new challenges. The novelty and complexity of the digital age has led to an increased academic interest in the area of digital transformation and a call from companies that seek support in this process.

We take a look at digitalization from the perspective of business research. This creates a better understanding of the challenges that today's businesses are facing. We believe this anthology will serve as a tool to help businesses better understand the force that is digitalization and support these corporations in their digital transformation.

The idea behind this anthology grew as Marknadstekniskt Centrum was taking part in several interesting research projects. Companies were asking MTC to facilitate contact with scholars and supply them with academic insight. Vinnova came on board, by supporting the project *Progressiv digital utveckling förutsättningar för framgång (Progressive Digital Development: Pre-Requisites for Success)* of which this book is a part: its aim to stimulate business to become more progressive in digital change. At last, this book and the website www.digitalchange.com have become a reality.

This joint venture between Marknadstekniskt Centrum and The Stockholm School of Economics Institute for Research follows the SIR tradition of publishing an annual yearbook to showcase its vital research contributions. The book begins with an overview of digitalization, then moves to understanding the new digital customer, and ends by exploring re-organisational effects, business models, and ecosystems. We hope this year's anthology will be useful for managers by facilitating their digitalization processes.

PART 1: DIGITALIZATION – DIFFERENT PERSPECTIVES

The role of digital technology in business and society is rapidly shifting from being a driver of marginal efficiency to an enabler of fundamental innovation and disruption in many industrial sectors, such as media, information and communication industries, and many more. The economic, societal, and business implications of digitalization are contested and raise serious questions about the wider impact of digital transformation. Digitalization affects all private and public operations, as well as the internal and external workings of any operation. Digitalization is the major driving force behind sweeping large-scale transformations in a multitude of industries. Part 1 includes various perspectives on digitalization and digital transformation.

PART 2: THE NEW DIGITAL CUSTOMER

Digitalization has resulted in more user-centric business and user-centric systems. The changing behaviour of the digital consumer/customer is discussed here as it connects to new forms of customer involvement and engagement, as well as analysis models of what creates customer value in this digital context.

PART 3: THE RE-ORGANISATION IN ORDER TO CONNECT WITH THE DIGITAL CUSTOMER

How can companies connect with digitalized consumers and non-digitalized customers? This is a central issue in managing digital transformation, as it draws attention to the emerging intra-organisational, marketing, and customer interaction challenges associated with digitalization: for both the consumer and the supplier. Another aspect of this is the internal handling of new forms of organizational ambidexterity; that is to say, companies and organizations engaged in digitalization processes often require an internal re-organisation in order to handle the demands that digitalization brings, and to explore new digital opportunities while promoting their existing business and operations.

PART 4: BUSINESS MODELS AND ECOSYSTEMS

How do companies change, adapt, and innovate their business models? Given that digitalization leads to a convergence of previously unconnected or loosely connected markets, the digitalizing company and organisation is analysed in its systemic and dynamic context. This part draws attention to business models and business model innovation. Incumbent firms need to adapt and change business models while competing with digital start-ups based upon new scalable business models, accessible ventures, and rapid processes of intermediating. These chapters discuss completely new co-operative business models: processes that need to be developed as companies shift from products to digitally based services.

The Ecosystem places digitalizing organisations and companies into their broader and systemic context. This includes discussions on digital disruption, industrial convergence processes, and shifting patterns of competition and cooperation. Digital technologies cause markets to converge in many new and sometimes unexpected ways. The result is the emergence of new roles and market positions of technical platforms.

Staffan Movin, Stiftelsen Marknadstekniskt Centrum

Managing Digital Media Investments

ERIK MODIG AND MARTIN SÖNDERGAARD

In this chapter, we discuss the possibilities and the challenges that come with moving from traditional to digital media investments. In line with popular opinion, we discuss whether digital media offers opportunities that are not available in the more traditional stream. Or whether digital media investments simply seem more attractive due to people's mentality that the "grass is always greener on the other side." The way in which companies adapt to digital media is likely to impact company success, it is crucial to understand the rules for these media investments, especially as these investments continue to increase. We begin this chapter by highlighting how digitalization has led to new principles for planning, designing, and evaluating media investments, and how companies must work in new ways to handle this change. We then discuss each area of research and summarise the valuable implications.

NEW MEDIA PRINCIPLES

There has been a dramatic increase in the total spending on digital media in Sweden since 2010, with the numbers more than doubling in the last six years. This is in line with international trends. Digital media investment is undeniably increasing, and starting to become a norm in which to invest. One of the largest changes due to this media digitalization is that it is now possible to target advertisements down to the single customer. We can customise ads and let algorithms determine the best way to distribute them to audiences. This potentially increases marketing effectiveness, as every company can become more relevant for each customer. This is nothing new: the segmentation and targeting of different media audiences is one of the cornerstones of media planning. However, the usefulness of doing this has increased significantly due to digitalization, which has led media planners to rethink how to work with reach and frequency: the two traditional parameters of media effect.

There are potential winnings in a new way of optimising; however, findings also suggest that it might be harmful for companies to rely too heavily upon the power of targeting and small target audiences.

NEW TYPES OF EXPOSURE

Besides new ways of evaluating and thinking about media planning, digitalization has also led to several changes in the kind of media exposure that companies can buy for their advertisements: from traditional TV and print to a plethora of different digital formats. This offers many new possibilities; however, advertisers really need to be aware that digital media exposure is usually smaller and shorter, and users tend to process it with lower motivation. We see a shift from desktop to mobile within the digital channels, and this increase in mobile spending is mostly what has led to increases in digital marketing. Banner advertising is disproportionately more prevalent in the mobile format than on desktops. This means there will be even more of an increase in smaller ads with shorter exposure time in the future. Advertisers need to understand and optimise their advertisements based upon these insights into a different kind of exposure.

NEW METRICS

The transformation into digital media has created the possibility of measuring behaviour in the form of a click rather than through changes in thoughts or emotions. The click-through rate (CTR) is the standard measure used to determine whether a potential customer has clicked on any digital marketing element: such as a link, advertisement, social media post, and so on. This has led to the possibility of connecting certain marketing activities with company performance, as clicks can lead to specific transactions that marketers can trace to specific investments. In this way, marketers can evaluate certain investments based upon their performance. In digital media channels, 64% of the budget is spent using a revenue model basing the cost upon the performance of the ad, thus, focusing upon the exposure of the ad (measures per impressions or views) and the number of clicks (Silverman, 2017). As aforementioned, large digital players emphasise the importance of so-called click-attribution. This, of course, is natural since these players sell clicks. Advertisers must be aware that, although evaluating a media investment based upon clicks may seem the perfect way to account for its effects, several findings suggest this is not a good strategy for all media investments.

NEW WAYS OF WORKING

The change in the digital media landscape also has implications for the structure of the marketing department. As more channels emerge, new competences become necessary; this means that companies need to both recruit new talent and educate existing employees. The digital landscape in particular has given marketing departments new opportunities to test and measure their work. This has opened a more agile way of working, and companies that can utilise these new opportunities and combine them with older approaches that still work will increase their chances of winning.

We will now discuss how companies should think regarding reach and frequency. Firstly, we examine the new kind of media exposure the digital environment offers and the implications for the kinds of ads that companies can use. Secondly, we look at how companies should best evaluate initiatives in this new environment. We will end by going through the implications this has for the approaches of marketing departments. We would like to emphasise the importance of these issues for people other than the CMO. Since it is absolutely necessary for the marketing department to stay relevant and competitive, the CEO and top management should also know about these changes in order to better understand the transformation and have the capability to manage it.

Media Planning: Questioning Reach and Frequency

The general opinion among marketers is that new digital possibilities allows for the smartest to win rather than the one with the largest media budget. Although a larger media budget will of course still allow for reach and frequency, smart decisions in media planning can offset this to a certain extent, by asking the right questions when buying access to target groups from publishers and communicating strategically with the right consumer at the right time with the right frequency.

SEPARATING REACH AND FREQUENCY

The media industry has previously discussed impressions, in terms of gross rating points (GRP) and target rating points (TRP), which generally stands for audience reach multiplied by the frequency of the advertisement. With the advent of digital media, we can break up reach and frequency into two independent metrics instead. Depending upon the strategic objectives for a specific campaign, the point where the marginal returns diminish will differ, thus, leading to different optimal frequencies. Obtaining a higher frequency on digital media might even cancel the possible benefits of previous exposures if the consumer becomes irritated or gets tired of seeing the same ad. Thus, getting the right exposure frequency and interval of sending a certain ad to an individual can have a great impact upon marketing metrics. If a low frequency is the aim for a given strategic objective, then it is better to spend the money on reach. This leads to two types of strategies when media planning: either goes for wide reach/low frequency or narrow reach/high frequency. Low frequency might be the way to go if one is trying to increase brand metrics; if one is trying to generate sales or communicate a new message, higher frequencies might be necessary.

Table 6.1.

	Wide Reach	**Narrow Reach**
High Frequency	Strong media impact: High investment with a risk of over-investing.	Targeted sales focus: The key challenge is to find the right target audience.
Low Frequency	Non-targeted brand building: The key challenge is to have relevant and good advertisements that can attract a wide audience.	Weak media impact: Low investment, with the risk that the low impact has little or no effect.

Since no impressions are expended to increase the frequency for a few people, using digital platforms to obtain greater reach can be cheaper than using traditional media. Nielsen (2016) found that, when buying TRP, increased spending was no guarantee of reaching more people. Instead, it often reached the same people: just with a higher frequency. The bigger the campaign gets, the harder it becomes to reach new people; however, actually communicating with these people who are difficult to reach can prove very valuable. This is because those in the target group who are generally not accessible through traditional media do not receive communications from competitors to the same extent, meaning that your message does not have to compete in the same way.

The ability to separate reach and frequency provides CMOs with another lever to optimise the marketing campaign, thus, creating an even bigger difference between unskilled and skilled marketers in the results they achieve. Since no unnecessary spending on the other variable is necessary, campaigns can also achieve higher reach or frequency with the same budget as before.

Unfortunately, marketers cannot take at face value the numbers publishers quote regarding target audiences and reach, since many use dubious methods to obtain these conclusions.

QUESTIONING REACH

Different actors within the digital media industry have claimed a greater reach than is possible: for example, saying they reach more people within a certain demographic than actually exist. Therefore, with regard to reach, it is important not to take at face value the numbers publishers provide since they can be fraudulent. Not only have they overstated reach; they have also claimed to hit certain target groups that they, themselves, have compiled using questionable methods. The same is true for traditional media; however, due to the possibility of tracking everything on digital platforms, many target groups that publishers compile seem to obtain greater credibility from advertisers.

There are great differences in the target groups available for purchase, depending upon which data and assumptions publishers have used to compile the specific groups. The main differences fall into two categories: how the publisher identifies and tracks the user through a cookie or by being logged in, and how the publisher segments the audience, based upon audience, context or behaviour. We begin by discussing how to identify the user, and then we will dive into how to segment the audience.

The advent of the cookie, which can track what a user has been doing, raised certain possibilities; its promises, however, go beyond what it can actually deliver. Many users today have several devices, meaning that it is not possible to reach those people who have allowed us to gather information on a single unit or to use the data on their other units to target information to them using cookies alone. Also, many different people may use the same computer, meaning consumers may see advertisements that marketers did, indeed, intend for someone else as they are targeted using cookies. In addition, many cookies disappear over time; the advertiser will only be able to reach the consumer for a certain period of time after the consumer engages in behaviour that is relevant to that specific advertiser. Services that let the user log in instead or use their specific app instead of a website can track users over many devices, as well as store information for a long period of time. This can also give marketers better control over ad frequency, as one person will not be counted as two different people and, thus, will not receive the ad twice as often as intended.

There are three different types of target group segmentation: audience, contextual, and behavioural. These follow in the order of least to the closest to a specific purchase.

The basis of audience segmentation lies in knowing which people are using publishers' services; thus, demographic variables are very informative. These types of segmentation are usually possible when users log in and give marketers information about themselves. This is obviously more accurate than, for example, using the traditional way of first doing a study of who reads a certain newspaper and then assuming everyone that reads said paper is a member of this demographic group. Most readers or viewers of a specific media outlet are not that homogenous; therefore, we also pay for impressions of people outside our intended group and cannot target certain individuals of the reader base; rather, we reach everyone that uses that media. Audience segmentation in the digital era can be much more specific than traditional media regarding whom it targets: instead of having a goal of reaching 24–39 year-olds, we can focus instead on 26–29 year-old men who also have certain kind of education, for example. Using geo-targeting, we can also target people who are in a certain area with a specific message. This can be very useful when we are trying to push for a sale.

The basis of contextual segmentation is the fact that the information the publisher is providing to the visitor has to do with a certain topic. This type of segmentation is very similar to what we have long since been doing in traditional media: for example, posting ads about a new car in a car magazine. The difference here, however, is that we can use information in digital media that we have gathered later. For example, if a visitor reads an article about cars, we may conclude the reader is interested in cars. Therefore, we might later send the visitor an ad for a car. Thus, it is important to keep in mind here that, although the consumer might be interested in cars, it does not necessarily mean the consumer is interested at that specific time. An ad for a car at that time might not be as relevant as when it appears together with an article about cars. On the other hand, we get the benefit here that we can re-target the same person multiple times, which is not possible to the same extent when the ad has a unique connection to the specific article.

One thing to keep in mind here is that some systems that sell ads online automatically classify what type of topic the specific site discusses, as marketers can post ads on separate forum threads. Since no human is necessarily involved, it means this classification can sometimes be incorrect. Another thing to keep in mind is that customers can look for information about a certain topic; however, that does not necessarily mean they are ready to buy. They may just find it emotionally rewarding to read about the topic. This issue is of course relevant in traditional media as well: just not to the same extent as it is online, as it is much easier to do, and consumers incur no extra cost by visiting an automotive site compared to buying a car magazine.

The basis of behavioural segmentation is the user behaviour the publisher has observed; it is often not as accurate as many advertisers believe it to be. The type of behaviour can vary in relevance to an advertiser; it of course can be of especially high interest if the search was very specific. Before purchasing or using any kind of consumer data, one should ask oneself from where does this data come and what are the underlying assumptions. For example, how many times must a consumer engage in a certain kind of behaviour in order to fit into a given segment? Perhaps one kind of behaviour is more telling than another, meaning that it is worth more to you as the advertiser. Before using any data, it is important to take into consideration its source, how old it is, and how often it is updated.

Some publishers are trying to offer specific audience segmentations by learning how a certain demographic behaves, thus, inferring that anyone who acts in the same way must also be a member of this group. Depending upon the degree of behavioural overlap, the quality of this segmentation differs; however, it is of course not on par with logged-in users' information. The logic might be as follows: We have observed that many executives are interested in soccer; therefore, anyone who shows an interest in soccer is probably an executive; therefore, we should advertise to him or her services for companies that would appeal to executives. That is to say, the behavioural overlap is not related to the specific advertised product; it is a source of demographic information instead and a way of deciding what kind of a person he or she is.

Advertisers need to question both size and nature of the target audience, which different media houses say they can provide. In several cases, they are overpromising when it comes to the number of real people they can reach as well as the potential increase in relevance based upon their segmentation method. Huge benefits are possible if one can find the right audience; however, it is up to the advertiser to find the right match among the large range of solutions that are available in the digital landscape.

Industry actors have used questionable methods for achieving reach and communicating with certain target groups, which is why it is important to ask the right questions. Has the publisher done the identification and tracking using cookies or logged-in users? What kind of segmentation has the publisher done and what assumptions does it underlie? Is it based upon audience, context or behaviour? Not only have critics raised questions regarding whom the advertisement reaches; they also wonder what should count as an exposure and how we can guarantee the ad was shown the number of times that it should have been.

QUESTIONING FREQUENCY

Reach is not only the victim of too ambitious promises of delivery; it is also of frequency, since it can be hard to know how many times and to whom a certain ad has been shown. To combat this, different technologies have emerged to detect possible ad fraud regarding frequency to ensure that real people – and not bots – are the actual viewers of the ads. This technology is constantly evolving on both sides: as we get better at detecting fraud, they become better at faking views.

To better understand what type of ad exposure we are purchasing, it is important to understand the numbers and reports that publishers return to us: something that can be rather confusing, since the terms and definitions they use can differ. Has the ad only been loaded, yet never in-screen; has it been in-screen, yet only very briefly or has it been in-screen for a longer period of time? There is still discussion about how long an ad should be in-screen for it to have the desired effect on the consumer. The time will most likely differ depending upon the objective of the specific ad. If it is only to increase familiarity, it will need less time than if the objective is to inform consumers about a new product. The important thing here is that it is not fair to say one impression equals another. For example, this is true for viewing time; an ad that has been in view for one second on a desktop is most likely not as valuable as an ad that has been in view for one second on a mobile, which has to do with the degree of attention the consumer gives to the ad. As an impression on one platform might not have the same effect as an impression on another; it is important to go back to the original goals in the form of metrics in order to understand their different relative values: for example, by offering a survey of how the ad has affected the attitude toward the brand.

With the advent of digital media, how we think of reach and frequency has fundamentally changed. We can now focus upon either reach or frequency: the implication is good choices can lead to an actor with a smaller budget but better choices, thus, outperforming one with a larger budget who has not thought through the way he or she is using the ad. Not only must the CMO understand which variables to focus upon; the CMO must also ascertain the actual reach and frequency that he or she has purchased, rather than what seems at face value to be the case. To conclude, digital media investments offer new possibilities to optimise reach and frequency. However, marketers need to stay alert and aware to avoid being fooled when media companies publish both their own measures and targeting tools.

Media Design: Rethinking Media Exposure

The digital transformation not only has implications for how the public sees advertisements; it is also true for how marketers design advertisements. The rules for what makes a good advertisement in the digital media are different from those of traditional linear television or print. This area is still under development; some guidelines have already emerged that can help with creative production. Following these insights will give marketers a better understanding of the fundamental principles of digital advertising.

SHORTER EXPOSURE TIME

The change in what works in digital media may come from differences in attitudes across generations, as well as the context and how the content is delivered. Since the viewer often has the option of skipping the ad after a certain number of seconds or scrolling past it whenever he or she wants, it is important for the commercial to hook the viewer instantly. The user spends approximately 1.7 seconds for any type of content on a mobile, which gives us an idea of the timeframe that we are talking about; often decisions on what content with which to engage takes even shorter times than that (*Capturing Attention in Feed*, 2017). This decrease in time spent on ads does not necessarily mean that the effect of the advertising decreases as well. Ads can generate recall even with very short exposures. We should be able to transmit the viewer a message or a feeling in a short timeframe, within which, we must hook viewers to ensure they want to continue watching. This is a paradigm shift from the way TV commercials generally work: by building up a linear story, and revealing the brand in the end. Since consumers can click away from the ad, we must hook them so that they want to see more. We must reverse the general structure of TV commercials, starting with the most intensive and attention-grabbing visuals at the beginning, and then building a context around it. The aspect ratio should differ from that on TV to increase the likelihood of the ad getting attention when presented in a feed, such as Facebook's newsfeed, since we want it to cover as large an area as possible in order to make it as hard as possible to ignore (*Tips for Your Facebook Video Ads,* n.d.). Even when we have caught the viewers' attention, we should not have ads that are any longer than absolutely necessary; consumers are much more likely to watch an entire ad if it is 15 seconds or less.

There is currently a discussion in the media about whether or not it is possible to get 30 seconds' of exposure that users cannot skip, as was and is the case with television. This is a big problem, since many no longer know where to put the main messages of their campaigns. Perhaps they should rethink instead the underlying assumption that they actually need this type of exposure: it is quite possible to do the same job with a five-second video ad if they rethink the general structure of the video ad according to the viewpoints presented herein.

Advertising presented online needs a different design to what works in traditional media. Since the attention span is much shorter here, it must offer the right feeling, thought, association, and so on much quicker than ads on linear television. This does not necessarily mean the advertising is less effective because consumers spend less time on it; it just means that a different design is necessary to influence the consumer. For example, marketers must invert the logic they use for constructing commercials for television: saving the best for last. Since consumers can now skip ads or just open another tab and wait for the ad to end, we must immediately pique their interest. As we will see in the next section, ads not only need to be shorter; they must also be easier to understand, as ads that consumers see many times are shown in a context, where consumers take in many other impressions at the same time.

NO SOUND

Even though digital offers possibilities to communicate with sound, only a limited portion of the audience consumes digital media with sound: such as news or social feeds. We cannot assume that all viewers have their audio turned on, and they may be in a loud environment; therefore, video ads cannot rely upon audio to make sense: they should still have an impact even without sound; the audio should only be an extra possibility to spice up the ad even more. One way of doing this is to utilise captions or subtitles, or to make sure the visual cues the ad uses are easy to interpret.

COGNITIVE LIMITATION

An ad is presented many times in a context where consumers are not prepared for a new message, meaning that it can take the viewer some time to understand what is going on in the ad. In one way, this is different from the way television presents commercials: where many are clustered together, so the viewer is somewhat prepared for the presentation of an entirely different concept. This means that it is essential for the ad to be easy to understand, not only since viewers' attention is limited; it is also because viewers are generally not very motivated to understand. Since the viewer is often unengaged in the ad itself and not paying much attention, it is also more effective if the product is present in at least half of the ad. Ads with lower cognitive loading have a more positive effect on ad recall (*Closing the Creative Loop,* 2016), as well as other traditional marketing metrics. To keep the cognitive loading low, we cannot work on all the important variables in the same ad, as this will lead to cognitive overload and, thus, no improvement upon any of the variables. We should instead use one ad specifically to increase its appeal and another one to inform about a new aspect of our products.

To a certain extent, these guidelines go against what many creators strive for in their ads: namely an awareness that requires thought to understand, and once the viewer grasps the point, the concept makes sense. Instead, a good ad should be short, attention grabbing, and as easy to understand as possible.

Ads in the digital age need to be easy to comprehend due to decreased motivation and attention, so we need to simplify the ads and focus upon specific variables. In turn, this requires a re-definition of a good marketer. This is not about making the cleverest ads; it about understanding how to make them short, attention grabbing, and easy to understand. One way to increase the motivation for viewers to process an ad is to increase its relevance, which is where digital media offers new possibilities as well as pitfalls.

RELEVANCE

Relevance can be discussed in relation to the media platform as well as to the individual. Realising that different platforms satisfy different needs within the viewer is important to consider, meaning that what is relevant and valuable in one context might not be so in another one (*Why Creativity Matters in the Age of Mobile,* 2017). Different platforms offer value to the consumer in a variety of ways. For example, many use Facebook to feel a sense of belonging and to show others who they are, whereas Instagram is more a source of inspiration. The same difference occurs in the traditional media, such as print: for example, the difference between lifestyle magazines and newspapers. Not only are consumers looking for different things in different channels; they might also perceive an ad differently depending upon the context in which they see it. For example, an ad on Instagram might seem to have a higher aesthetic value (*Why Creativity Matters in the Age of Mobile,* 2017). Not only should brands adapt their ads depending upon the exact channels in which they are presented; they could also utilise the possibility within digital media to offer different ads depending upon the segment to which they believe the consumer belongs; in doing so, they can increase the perceived relevance for the individual further. Large differences are not required: for example, it can be a good idea to show products that are actually relevant to the viewers when advertising a second-hand portal on which people can sell and buy whatever they want, in order to ensure they make the connection that they can buy and sell what interests them. This is of course obvious once they think about it; however, we must make this job as easy as possible for them since we cannot expect great viewer engagement.

As advertisers, we need to think about digital not as one unified channel, but rather as many different platforms that satisfy many different needs. To be relevant in relation to the customer, we must consider what benefits customers seek in different outlets as well as try to personalise the ad using the available data.

Due this new form of advertising, ads must communicate their messages more quickly than traditional media. When done well, this does not mean that the shortened exposure reduces the effectiveness of ads. Not only does the viewer process the ads more rapidly; they also use less attention and require fewer cognitive resources. The bottom line is that ads must be easy to understand. One way to increase the cognitive resources and the time consumers spend processing the ad is to make it more relevant, which involves understanding why the consumer visits a certain media outlet, as well as utilising the methods previously described to target certain variants of the ad to specific customers. Even though much remains to be explored within digital marketing, these are some established ways of thinking about ads in this new context, which can lead to more effective advertising. Overall, marketers need to pay more attention to the specific design requirements for digital exposure. Today, several marketers spend money on ads that perform much worse than they would if only marketers prepared them properly for the digital landscape.

Media Evaluation: Questioning Click Metrics

When the internet was a new phenomenon, consumers had a completely different attitude to digital ads, and they clicked on ads to a much greater extent than they do now. Many digital companies, such as Google, were driving forces behind this logic, as they themselves profited from the focus on CTR. This new currency was easy for other actors within the industry to adopt, since it is easy to understand intuitively and to measure. These factors together explain why the issue is in focus today.

Over time, however, the general CTR dropped due to changed attitudes and increased ad density. This did not mean that the effectiveness of banner advertising dropped; just that instead of driving a direct behaviour such as a click, it led to more traditional effects, such as changed attitudes toward the brand or increased purchase intention. Despite this, many are still evaluating ads in the digital media on how many clicks they receive. Most people understand the problem of solely focusing on clicks, but they still choose to continue. What are the underlying reasons for this, and how can they be changed?

TOO EASY TO MEASURE AND UNDERSTAND

The explanation you usually get when asking why marketers evaluate a campaign by clicks is usually one of the following: It is a universal measure with a clear standard. It does not require additional bets on panels or surveys to get an answer. It is easy to communicate upwards, as it is a clear behaviour that everyone can understand. It often happens close to a purchase. With all these arguments available, one can still understand why the measure is tenacious, since all these arguments describe valuable things. The problem lies in the fact that if the metric does not tell us anything of value, all the above-mentioned arguments become irrelevant.

THE CLICK'S SIGNIFICANCE IS OVERRATED

It is partly the nature of the metric that makes CTR problematic. Instead of measuring how the average has changed, through a survey for example, you measure those who have been influenced so much that they are very interested right now in buying or knowing more about the product, which is a very small percentage. Not only is it problematic just to measure those who actually engage in behaviour at the moment of exposure, but it is also the case that many of these clicks are mistakes. If we look at the difference between measures of a good and a bad campaign, 0.15% and 0.05%, we see that they differ by 100 clicks per 100,000 impressions. In addition, many clicks on the phone are mistakes. The intentional clicks are not even an even a proportionate sample of the people marketers target. Many times, a small percentage of all visitors make the majority of the clicks, and these visitors tend to be younger and have lower incomes than average. With this in mind, one can really question how valuable a click is to the brand.

OTHER BEHAVIOUR VARIABLES ARE MORE IMPORTANT THAN CLICKS

Already in 2003, research showed that the number of clicks was a bad measure of the effectiveness of a banner (Drèze & Hussherr, 2003). What instead should be used is the classic brand-equity metrics that have been in use for a long time in many other media outlets. Even before choosing the channel and designing the ad, one should decide on the exact goals of the campaign and how to evaluate the results. If the goal is to increase the brand awareness, it is important to keep in mind the negative relationship between classic brand equity measurements and CTR shown in Schibsted's study of mobiles in collaboration with Lund University (Olivensjö & Sundberg, 2015), showing that clicking on the ad led to a worse view of the brand.

There is evidence that classic brand-equity metrics have a greater correlation with actual conversion than CTR has. For example, one study has shown (Pretarget & ComScore, 2012) that the correlation between having the mouse over the ad and actual conversion was 0.49, whereas the same correlation for CTR was 0.01. Not even in the cases where we want the consumer to carry out an action directly on the mobile phone is CTR the preferred option, as we would rather look at how many have performed the action and then use cost per action.

If we want to make a fair measurement and evaluation of the investment, there is unfortunately no single measure that can capture all possible dimensions that are relevant to our brand. Instead, it is necessary to reflect on and understanding what different metrics in marketing measure.

Consumers' attitudes toward ads on the internet have changed significantly since ads began; yet the ways many brands evaluate their media investments online have not. Using CTR became the standard for evaluating digital ads, as some actors within the industry profited from its focus and because of the ease of measuring and understanding it. The importance of CTR is overrated, as it only measures the small number of people who actually engage directly in behaviour, and neglects the fact that many of these clicks are mistakes. Those who click with intent are not a representative sample of the visitors to the site; instead, many who do are younger people with below average incomes. To better measure the effectiveness of online ads, marketers should use traditional brand-equity metrics and, when they are not available, other measurements that can be collected automatically can prove better: such as clicking a mouse over ad or an action that has been taken.

The New Marketing Department

A new way of organising the marketing department is required in order to capture all these new possibilities and to cut costs using the new technology. These new ways of marketing require new processes and the modification of old ones. For these processes to run smoothly and to generate the maximum value, employees need new competencies and skills. Since we are still in the early stages of this development, it is not yet clear which systems are the best; with no established standards, it is hard for the CMO to know in which new initiatives to invest. Many CMOs feel they face never-ending possibilities; they are fearful of the possibility that their competitors might be making better use of them than they are. When there are no established solutions, big media spending is no longer the concern; instead, it is hiring the best talent to capitalise on these new opportunities. Having the right employees will become even more important to identify the processes companies that can standardise and upon which they should prioritise and focus, as staff understands and learns the appropriate skills.

RE-EVALUATION OF MARKETING PROCESSES

Some processes require an entirely new division, such as search engine optimisation; creating ads for digital platforms require modification of existing processes. Some jobs or processes require entirely different kinds of people, whereas others require re-educating existing employees. The number of different processes, however, will increase; therefore, it is crucial for the marketing department to handle a larger number of different procedures. Some methods should become more automated than many believe is possible. In many cases, this does not require new technology; rather, it is the standardisation of some processes is vital for companies, so they do not repeat them unnecessarily. Marketing departments need to sort out which processes they can standardise, and focus upon those that require the greatest effort. In doing so, they can experiment more in the more relevant areas, thus, finding the recipe for success that will allow employees to be even more creative at work, and experiment with new concepts.

SET UP EXPERIMENTS FOR CONTINUOUS LEARNING

With the possibilities that the new digital environment offers, it will be possible for companies to try things out to a larger extent without incurring much extra cost. They might run some ads simply to see if a certain hypothesis is correct regarding what drives growth, and later use that information to improve other campaigns. The emerging technology of machine learning can automatically test different layouts and combinations of elements in digital channels and find the combination that works best. The principle of continuous learning through experimentation and incremental improvements year after year will become even more relevant as the professionalisation of the marketing trade continues. The starting point should be that a large majority of the marketing budget and campaign will stay the same, spending most of the budget upon what already works quite well, while using a smaller portion to try out new ideas. By instilling a culture of slow but steady improvement using feedback, the marketing efforts will improve over time. Reacting more quickly to the things that matter when most of the processes are stable will also become easier to do.

MOVING FAST

Information moves more quickly in the new marketing environment; therefore, it is even more important to be fast in order to capitalise upon opportunities and to negotiate threats. Information is also more spread out and more democratised than it was in the past. A portion of the marketing department for many companies should focus upon interactions with customers in real time: skills that are similar to what customer relationship management divisions have been doing for a long time. The possibility for people to interact with each other in real time is something in which companies should partake as well. This means another type of marketing material is necessary. In these contexts, it is no longer about a small amount of content of high production quality, but rather a lot of continuous content at a lower production quality. The content can be more personal, and it does not require the same professional feeling, as the goal here is to build a more intimate relationship with the customer. This requires not only a new type of marketing department; different structures in other parts of the organisation are also necessary, as is a quick clearance to respond to events in real time. A media budget specifically for capitalising upon current trends might be necessary to create awareness, which is a great way to obtain more attention for your brand, as it increases the perceived relevancy: very useful when consumers receive floods of new messages. A risk voiced by CMOs about restructuring their marketing departments in accordance with these suggestions is that they will have difficulty communicating one uniform message. This will not necessarily have as much of a negative impact as they believe. Being in tune with campaigns that run in the traditional media is, therefore, not as important for new departments or those that have recently increased in size.

DO NOT DROWN IN THE WRONG NUMBERS

Decisions in marketing departments are increasingly being made using the new possibilities of measuring marketing impact. However, just because we can measure something does not mean that it is a relevant number that can tell us something useful. A structured approach based upon consumer psychology and research methodology is necessary in order to discern the relevant measurements and the type of decision for which they are required. A quantitative rapport is not worth much if the underlying assumptions and data upon which it builds is not of high quality. When we need to measure the initiatives in different media outlets against each other, we must look at what they have in common: the person who is actually receiving and responding to the communication. An understanding of consumer psychology is necessary to grasp what types of metrics are relevant to a specific brand or initiative and how they compare with each other. Having good knowledge of research methodology is necessary to measure these metrics in the fairest way. When focusing upon measurement and data, it is important to keep in mind that just because a variable is easy to measure, does not mean that it is relevant; in fact, the relationship between the two might actually be the opposite. Many of the most important variables in success are hard to quantify, yet are still very important to marketing: such as unconscious emotions toward the brand. By forgetting about these more abstract and esoteric metrics, brands can easily destroy their brand equity by only looking at the variables they can easily affect, that are easy to measure, and that lead directly to sales.

The new opportunities and threats in digital marketing require a restructuring of marketing departments to adds new processes and skills. This rapidly changing environment makes it hard for the CMO to know upon which areas to focus. Companies should standardise other processes and marketing investments to a greater extent in order to allow for the allocation of time and resources to the respective focus areas. They should reinvest the larger part of the marketing budget in what already works to allow for a smaller part of the budget for experimentation and to discover new initiatives that might work. They should reserve another part of the budget to capitalise upon emerging trends, as this will allow the marketing of the company to stay relevant. When evaluating all these new initiatives, the focus should be on the most relevant numbers rather than those that are the easiest to measure.

Surviving The Shift

Transforming to the digital media landscape will not be easy for companies. They will have to adapt. What we see now, however, is that many companies are running much faster than their marketing department can handle, and probably much faster than is necessary. This new technology offers as many opportunities as it does ways of going in the wrong direction. We have highlighted four of the concepts companies need to understand in the digital media landscape in order to optimise their media investments: questioning reach and frequency, rethinking media exposure, the new marketing department, and questioning click metrics.

We began by showing how the separation between reach and frequency has given the CMO more levers with which to optimise the marketing campaign. When utilising this new opportunity, CMOs need to be careful since many of the actors within the industry use dubious methods to determine whether or not someone is a part of the target group. Armed with the right questions, CMOs can avoid many pitfalls. They also need to investigate frequency to ensure the ad has received as much exposure as the publisher claims it has. Before buying exposure, it is also necessary to understand which type of exposure is necessary for the ad to have the desired effect.

We then discussed how companies should design ads for digital media. They need to communicate their message much faster than in traditional media, and to use fewer of the consumer's cognitive resources. They can often construct ads more effectively, yet this sometimes requires focusing upon only one thing, rather than many different ones. Ads should be relevant for them to be effective. Marketers need to consider the platforms on which they will publish ads and the benefits of using these media outlets, as well as personalising the ads using information garnered from the user.

The standard of using CTR to measure the success of ads has arisen not because of its effectiveness in measuring ad impact; rather, it is gathered automatically, thus, it is easy to understand intuitively and the big actors within the industry have pushed it. To evaluate initiatives in digital media, the CMO cannot rely upon click metrics, traditional brand-equity metrics should be used instead.

Discussing the new opportunities and threats due to digital media for the brand, we saw that the marketing department might have to restructure to accommodate for these new needs. They must standardise some processes to a greater extent, whereas others will benefit from more experimentation. The marketing budget should match these structural changes, with the main part going to reinvesting in what works and a smaller part to experimenting and to following up on trends.

We hope this information will arm forward-looking CMOs with insights that will enable them to survive one of the largest shifts in paradigms since marketing's inception.

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