Market Segmentation in (In)Action: Marketing and 'Yet to Be Installed' Role of Big and Social Media Data

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Abstract: *»(In)Aktive Marktsegmentierung: Marketing und noch zu installierende Rolle von Big- und Social-Media-Data«.* Marketing has always been dependent on the input of new forms of consumer data throughout its history, relying on translations of this data into more and more effective means for targeting and engaging consumers. The focus on the digital segmentation of consumers has been subject to differing marketing orientations, beginning with relationship marketing and moving towards experiential marketing and now more recent efforts towards 'collaborative' marketing. The intention behind segmenting consumers is focused on more effectively engaging targeted segments towards repeat buying behaviours. However, as in past practices, the shift to social media marketing and social customer relationship management (social CRM) has been subject to some significant limitations. Although the advent of social media and the opening up of this space for marketing has created (the potential for) an expanded means for tracking and classifying consumer behaviour, this paper highlights the limitations of the practices for all but a few select marketing practices in the 'successful' 'making up' of markets. This paper examines the limitations in use of social media data. Despite the promises of big data, old ways of segmentation and classification die hard and are seen as and often are evaluated as (more) effective. While the potential for consumers to actively participate in forms of marketing has shifted with the advent of social media, studies of participation in multiple mediums for 'user' or consumer participation indicate that this is done infrequently. Social media remains 'uninstalled'. This paper highlights the limitations of specific marketing segmentations 'in practice.' It indicates that narratives of consumer empowerment and participation are limited alongside the slow and incremental adaptation to highly valued trends by most companies in practice.

Keywords: Segmentation, social media, customer relationship management, marketing technology.

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1. Introduction

How are informational artefacts and social worlds fitted together? This HSR Special Issue focuses in part on this question raised previously by Geoffrey Bowker and Susan Leigh Star (2000, 82) by drawing out how classifications simultaneously re-*present* and per-*form* markets and the experiences of consumers within those markets and the effect these have on 'life-chances' (see for instance Fourcade and Healy 2013; Lyon 2003). This article in specifically examines marketing segmentation practices as forms of contemporary (economic) classification. It depicts both historical developments in data gathering and use for segmentation and current experiences by practitioners in the field. The focus of this research is on two interrelated research questions: Firstly, in the context of multiple data sources, how do practitioners experience 'doing' segmentation, its challenges and possibilities, on a regular basis? And secondly, how has social media data in particular shaped these practitioners' everyday practices?

As is evident in the title of this piece, the answer to these questions and particularly to the latter question suggests that despite significant 'hype' about the transformation of business practices through new data and techniques, (some) marketing changes slowly. This is readily apparent in the segmentation practices of informants for this research. Of course, marketing has always been dependent on the input of new forms of consumer data throughout its history. It relies on translations of this data into more and more effective means for targeting and engaging consumers. The focus on the (digital) segmentation of consumers, which began in earnest in the 1970s, has been subject to differing marketing orientations, beginning with relationship marketing and moving towards experiential marketing and now more recent efforts towards 'collaborative' marketing. Regardless, the intention behind segmenting consumers is focused on more effectively engaging targeted segments towards repeat (and increased) buying behaviours (see also Krenn 2017, in this issue). These are forms of, as Fourcade and Healy suggest, "within-market classifications" that serve to position consumers "in a categorical framework or on a continuous scale" and these reach "ever more broadly across spheres of life" (Fourcade and Healy 2013, 564).

However, as in past practices, technological shifts have limited the effectiveness of the use of segmentation in action. The mythical import of algorithmic mechanisms of classification (Burrell 2016; Ziewitz 2016) may be seen to shape current practices in some contexts, but as becomes apparent below, this is not occurring to the extent to which this might be expected. Traditional segmentation and clustering still predominates but these are themselves part of a set of 'messy' practices in the attempt to make more systematic the surveillance of consumers. Most importantly, the promises and potentials of social media data remain a limited part of today's segmentation practices. Shifts towards social media marketing and social customer relationship management (social

CRM) require a refocusing regarding the role and importance of segmentation in marketing. Although the advent of social media and the opening up of this space for marketing has created (the potential for) an expanded means for tracking and classifying consumer behaviour, including the potential for forms of self-segmentation, this paper highlights the limitations of the practices for all but a few select marketing practices in the 'making up' of markets. Old practices remain dominant even as new sources of data and potentials for consumer agency emerge.

To examine this in more detail, first this paper contextualizes the analytical concerns regarding segmentation practices as part of tangled network of interests and practices that include both people and technologies, with particular attention given to the promise of algorithms and big data. Second, the paper briefly summarises the historical development of segmentation and its ongoing potentials and implementation issues. Third, drawing on empirical interviews with a small number of segmentation practitioners and segmentation researchers, the paper examines current practices with segmentation, noting continuation of traditional practices and the trial and error difficulties to which much of segmentation work is subject. These same interviewees then describe their experiences and perspectives on new forms of data such as through social media, indicating the limited use of newer forms of accessible data for segmentation work. Although not a representative sample of practitioners, their experiences raise important considerations regarding how significantly the 'promise' of new techniques, technologies and data has shaped segmentation practices themselves and how this may affect and shape people's 'life-chances'. Finally, the paper concludes by discussing segmentation in light of historical technologies of marketing, sketching out the trajectories and challenges of segmentation in the post big-data/social media world.

2. Issues and (Human) Entanglements of Data Analysis

Segmentations provide a form of informational infrastructure, yet in practice – as this research demonstrates – there is "a permanent tension between attempts at universal standardization" and their use in "local circumstances" (Bowker and Star 2000, 139; this is also similarly made evident in Krenn 2017). The significant increase in consumer data made available by advances in new information and communication technologies, particularly the ability to store and retrieve this data, has increased the importance placed on consumer segmentation by marketers significantly. Traditional segmentation practices consisting of identifying clusters of consumers through statistical analysis occurs alongside an increasingly automated set of practices, specifically the advent of data mining practices that emerged in force during the late 1990s. Data mining focuses on the evaluation of data within large databases to discover patterns of

previously unknown and potentially useful information through in-depth analysis (Birrer 2005). Further, predictive analytics and knowledge data discovery (KDD) make more detailed assumptions about likely behaviours or indicate implicit connections between consumer behaviours (ibid.). Both are systematic analyses of large databases that predate the rise of what is now commonly described as "big data." However, the issues that emerged historically have only been heightened in contemporary practice.

The emergence of KDD in particular raised several significant concerns regarding what these practices might mean more explicitly in terms of data protection and privacy. First, as outlined in the requirements of Fair Information Practices, there was difficulty in having corporations specify the purposes for the collection and use of information as well as limit the use of this information beyond that which was specified. It is impossible to predict (read: specify), the purpose in KDD; its very nature is based on finding non-obvious relationships and patterns within sets of data, as the very categories were always emerging. Limiting the data collection to specific purposes was seen to defeat the very purpose of its collection and use unless articulated very broadly (Tavani 1999). Data mining more generally raises the same issue – although more focused than KDD, most segmentation practices for instance are about creating new knowledge of customers from data connections deemed significant. Second, although the data used and the generalizations/profiles created in data mining and KDD might not qualify as personal data – for instance if they have been stripped of these identifiers in their collection – they may have a serious impact on the person from whom the data was taken (Vedder 1999). That is, extracted and analysed anonymised data may have the same significant personal implications that data protection policies were intended to reduce or prevent in the application of digital generalizations/profiles.

As noted, these concerns were voiced at the turn of the century, when data analytic technologies were in their infancy. Focused data mining practices persist as reliable tried and tested analytical processes, in part perhaps because "managers are faced with time problems and therefore still rely on techniques or rules used for many years" (Foedermayr and Diamantopoulos 2008, 252). Yet KDD has largely become (re)described as forms of algorithmic analysis that now pervade in discussions of 'big data.' Big data and the arrival of social media have amplified earlier identified issues even if they are now slowly becoming routine practices. A significant part of the discussions surrounding algorithms is that they have become central to the process of 'perceiving' big data (Amoore and Piotukh 2015), and that the practices/results that proceed from this analysis have significant implications on social, political, and economic life. At its basis, apprehensions about algorithmic analysis relate to whether and how they have gone beyond our (human) control and how they "can escape full understanding and interpretation by humans" (Burrell 2016, 10). Reiterating in part the concerns of Tavani as well as Vedder noted above,

the complexity inherent in data driven categorisation techniques is one in which computers are seen to build their own means to make sense of data without regard to human comprehension (ibid.). This renders them increasingly opaque or 'inscrutable' and the subject of ongoing research as to how or if these can be 'known' (Ziewitz 2016). It thus becomes increasingly difficult to map the means by which machines can be seen to 'learn' from human practice or be intervened upon by humans. However given their speed and capabilities, technological developments can be seen to increasingly supersede human interventions.

Both routine practices of data mining and the promise of algorithmically aided segmentation rely on terminology that is problematic. Words and phrases such as 'extrapolation', 'machine learning', 'regression models', 'data-driven', 'algorithmic' and 'calculation' begin to hide the human elements in these "powerful and agential" processes (Neyland 2015, 51). The production of data – its mining and perception – and all its outcomes are intertwined with human practices. They are the results of heterogeneous assemblages in which the agential potential and work of segmentation, cannot be neatly divided between that of machines and that of humans – it is much more 'messy' (Ziewitz 2016). Humans are part of the process throughout: they define coding and initial categorisation, what is important and not, and they influence its analysis. As noted below, this is very evident in the routine practices of segmentation, but even the development and the application of different knowledge discovery practices and algorithmic analyses require human interpretation and sense making. As such, this paper looks at "actions as emerging from complex and messy relations" (Neyland 2015, 52) and seeks to highlight the ways in which this happens in segmentation practices today. Most importantly, the advent and limited use of social media become central means by which the 'making up' of segmentations are revealed as more complicated and less automated than might be expected or anticipated. Before focusing on this, the context in which the social media segmentation emerged requires further examination.

3. History of Marketing Segmentation

In the post-war era, increasingly intense efforts to identify, understand and to some extent control the socio-psychological inclinations of consumers began (see for instance Miller and Rose 1997). Wendell Smith (1956) believed segmentation to be an effective alternative strategy to mass marketing over half a century ago. For him, product differentiation – distinguishing products or services from others – was the starting point to approach different segments within the market. Smith wrote that segmentation "consists of viewing a heterogeneous market [...] as a number of smaller homogeneous markets in response to differing product preferences" (1956, 6) and these segments could be distinguished by measuring differences in the consumer 'requirements.' The focus

here was on the demand side – Smith's attempt to persuade marketers to effectively understand the "pre-eminence" of the consumer in the economy. Yet arguably this objective can be seen as historically limited as techniques and processes of defining consumers through segmentation have predominated discourse about marketing practice over and against consumer demands and interests (Beckett 2012).

Market segmentation blossomed in relation to the advent of computerised data systems and the application of psychographics in the 1970s (a technique that combines demographic and psychological factors). It further grew with refinements to geodemographics in the 1980s (techniques that allowed for the mapping of certain demographic and psychographic clusters in geographic space and a key driver of increasingly targeted direct marketing campaigns [Goss 1995]). Targeting market segments expanded significantly as numerous organizations collected demographic and psychographic data to discover "attitudes, opinions, and interests" of consumers (Arvidsson 2004, 464). Differentiated segmentation of markets through these processes allowed for increasingly "smaller and smaller units of analysis" for increasingly precise targeting of consumers (Holbrook and Hulbert 2002, 716). The transition toward smaller segments and clusters of consumers occurred largely in relation to the growth of new information technologies and data processing. Central to this transition was the development of the consumer database.

Large-scale electronic consumer databases were employed early on as part of the development of consumer credit (see for example Poon 2007) and large geodemographic information systems (GIS) in the US. Jonathan Robbin developed a system of consumer segments in the United States according to ZIP codes using the acronym PRIZM, short for Potential Rating Index for ZIP Markets (Weiss 1988). Richard Webber developed a similar system called ACORN – A Classification Of Residential Neighbourhoods – in relation to postal codes in the UK at about the same time (Burrows and Gane 2006). Both Robbin and Webber relied heavily on the nascent fields of information technology and software development to translate the geographic distributions of populations into socio-spatial arrangements, or 'social clusters' – "where people tend to congregate among people like themselves" (Weiss 1988, 11). It quickly became clear that such GIS-generated population clusters made a very valuable information commodity because location proved to be a "powerful predictor of all manner of consumption practices" (Burrows and Gane 2006, 795). Marketers hailed the newly available consumer data as it revealed very clearly the spatial distribution of socio-economic characteristics, tastes, preferences, and lifestyles. Combined with already existing market intelligence, GIS provided an even more solid basis for consumer segmentation as well as selection and de-selection of entire geographic areas for commercial communication, retail development, and product delivery.

In the 1970s and 1980s, adding geographic information to existing forms of lifestyle and socio-demographic information certainly refined and rendered more useful for marketers the notion of consumer clusters and segments. There were a number of concerns with such practices, particularly in the shift towards increased digitalization of information and the rise of data mining. These practices suggested a digital panoptic sort of consumers via algorithmic analysis, cross-referencing of data, and massively populated, electronic consumer profiles that allowed for previously unknown and unknowable consumption patterns and behavioural relationships to emerge (Danna and Gandy 2002; Pridmore 2012). The intention was that by constantly (re)producing, storing and analysing massive amounts of digital data, current forms of marketing practices could respond to quickly changing desires, fluid identities, and spatial mobility of contemporary consumers (Arvidsson 2004). The indication is that databases would capture consumer activities ubiquitously and in minute detail, and that these databases would (and have) become electronic repositories of complex consumer lives.

In practice however, this has not been the case. In the late 1990s, Sally Dibb noted that "increasing evidence suggests that businesses have problems operationalizing segmentation" (Dibb 1998, 394) and that "the sophistication of implementation guidance remains surprisingly static" (Dibb 1999, 109; also cited in Foedermayr and Diamantopoulos 2008). These barriers can be subdivided into issues related to infrastructure, process and implementation (Dibb and Simkin 2001), but also can be seen as part of an "academic-practitioner gulf" in which the scientific demands of academics clash with the more pragmatic marketing goals of the practitioners (Harrison and Kjellberg 2010, 785). Along these lines, some of the fundamental problems of segmentation practice are connected to issues with the "practical instruction detailing how to choose segments, analyse the costs of serving segments, or monitor resulting customer groups in a clear and unambiguous manner" and these are "repeatedly cited as a reason why many organisations choose to implement simplistic and intuitive segmentation approaches" (Quinn 2009, 255). Due to these limitations and more, segmentation has been described as 'dead' a number of times by prominent marketers (Lewis and Bridger 2001; Fassnacht 2009; IBM's CEO on Data 2016). These declarations echo the failure of Customer Relationship Management (CRM) to live up to its expectations in the 1990s, leading in one case, Tom Siebel, the then head of Seibel Systems, to declare that "CRM is dead" in 2002 (Morphy 2002). At the time, Siebel sought to move his company, Siebel Systems, the undisputed leader in CRM, with the largest CRM market share, in a new direction. The future, he suggested, "lies in vertical business processes and Web services" and not in building generic software solutions that may suffer from further inaccurate customer predictions (ibid.). By declaring the

death of CRM, Siebel sought to turn CRM from its increasingly poor reputation and towards technological infrastructure integration.[1]

Much like this, indications of the death of segmentation stems from the increasing awareness that the original goal of segmentation in Smith's estimation, to reinforce the pre-eminence of the consumer – is limited by new information technologies. This is reiterated by Venter, Wright, and Dibb who note more recently that "despite its long academic heritage, segmentation may be failing to achieve its original objectives" (2015, 62). As noted above, there may be a multiplicity of reasons for this, but it may also be in part because segments can be seen to mean increasingly less in a context in which highly personalised products become available and in which consumers themselves can be seen to segment themselves through the use of social media (Canhoto, Clark and Fennemore 2013). Although market research techniques have matured and allowed many organisations the ability to identify smaller and more homogeneous consumer segments, the refinement of these segments has been limited by a comparatively slow adoption and implementation of new technologies. This includes a limited and mostly non-interactive approach to market feedback. In theory the internet and social media more generally should have dramatically shifted this potential as it allows for forms of 'self-segmentation' (ibid.), but as we will see, practices of segmentation follow a pattern of a very slow (widespread) adoption of new marketing practices and technologies.

4. Shaping the (Segmentation) Market

In order to research segmentation practices more fully, this paper is based on interviews with ten segmentation practitioners in three different countries and supplemented by interviews with two academic researchers working and teaching on segmentation, conducted as part of the completion of a Master's thesis.[2] Academic research regarding segmentation (and many other practices) often articulate idealized forms – practices 'in the wild' are rarely depicted except within limited case studies. By drawing on these interviews with segmentation practitioners – people who work to develop segments either within their own organisations or as consultants for other companies – this paper seeks to present their experiences and knowledge and highlights their struggles in daily practices of segmentation building. In line with the authors' own focus on

[1] Several other notable blogs and websites have likewise declared the death of CRM over the past decade and a half, most notably Scott Nelson's short article "CRM is Dead, Long Live CRM" which suggests a focus on CRM not as a technology but as "customer oriented strategies and processes" (2004, 195).

[2] This paper was developed in part based on research completed by Lalu Hämäläinen for his Master's thesis at Erasmus University (Hämäläinen 2014).

media, communication and branding, the industries these practitioners are engaged in are predominantly related to brand awareness, including customer experience, product development, subscription and advertising services, and behavioural monitoring of consumers. Further, interviews with academic segmentation researchers were conducted in order to get a sense of if or to what degree there may be an 'academic-practitioner gulf' in our research. The focus in the interviews was on experiences developing segmentation on a routine basis in their work contexts, for their own organization or as consultants for an external organization dependent on their organizational focus. The next section will focus on how new and social media have begun to affect (or not) segmentation, but it is first important to see how the challenges of 'doing' segmentation is described by practitioners more generally.

What is first apparent is that the challenge of segmentation is in constructing these appropriately, more specifically it is about constructing identities within segments that are clearly distinctive from each other. Karel, a Social Media Research Manager at a Netherlands based international research company, makes it clear that constructing visually distinctive segments is the only way to be successful in engaging her clients:

> Karel: There is no way for me to visualize that and to show to my clients: "This is your segment". That's a problem because our clients [...] are not researchers. If you present them with a big book of tables and graphs, they would have difficulties in seeing the differences between the segments. And if he or she doesn't really believe or understand the differences between the segments, then it will never be used in practice.

Hans, a research director of another Dutch marketing company, states that a segment is a population "that has common characteristics and to which I can attach an action for my client." For both Hans and Karel, the orientation of segmentation is invariably towards action, and the challenge of constructing segments is not simply to do so as a descriptive practice but to give some direction to future practices. This is the focus of their efforts in a practical sense, leaving Smith's goal of giving consumer 'pre-eminence' far behind.

Key to making segments 'actionable' are two interrelated things according to the interviewees for this study. First, some sort of "hypothesis about what kind of people they are" is needed in Markus' words, a managing director of a brand awareness company in Finland. Second, these depictions or "personas" in the words of Dirk, managing partner at the same research company as Karel, are crucial for organisational alignment so that "everyone in the organization understands what type of persons you are talking about." As Dirk further notes, these come in the form of names – like "Marco and Ina or Jenny" – that have what Hans calls "common characteristics" – they are stereotypes of persons with recognizable traits that are applied to a collection of data points.

While the development of such personas are in line with what might be expected of segmentation practices (see empirical studies listed in Foedermayr

and Diamantopoulos 2008), Lars, a statistician working in an international market research firm in the Netherlands, makes it clear that "it is very hard to make something to develop a clear segmentation." This challenge is, in his words, in part because often "the correlation of your variables you are building your segmentation on don't relate strongly enough to your hypotheses." Here we begin to see the disparity between expectations – hypotheses of what the data will show – against the actual practice of constructing segments which is about numerically defining common characteristics of that group. The work involved in dealing with this disparity is further hinted at by Markus when he talks about the use of 'big data':

> Markus: Big data is for example [...] all the information and transactions that people do or have done in their last three years and then you have an idea of what you find out. It is just data and it has no value in and of itself. So unless you know what you need to find [...] you need to have some kind of hypothesis, some kind of idea that lets you know if I get this data out of it and then do this and that then I might get something interesting. You have to have that idea. If you don't have the idea of the house, you can't build a house simply by having all the materials needed to build a house.

Markus' point in stating that "data has no value in and of itself" reinforces the constructed basis for understanding segmentation as does his use of the 'house' analogy. The value of data becomes evident in relation to the conceptual framing – a reliance upon an idea or hypothesis – and how these are put together. This reinforces the idea that the value of data is always in relation to other data (van der Ploeg 2005, 15-36) and that these data do "not necessarily speak for themselves" as noted in the introduction to this HSR Special Issue (Krenn 2017b).

Dirk raises a similar issue in connecting segmentations with databases:

> Dirk: [T]he foremost challenge in segmentation is how to connect it to the customer database. How can you find the segmentation in the customer database? Sometimes you start with the customer database and sometimes you start with the need segmentation. Sometimes it could be both the starting points, but it's always the case to connect these two together.

This indication of the potential for a bilateral shaping process is important and yet another challenge. The origins of some segmentation processes might be based on the use of the database first or on approaching that database with a definition of 'needs.' However later Dirk makes it clear that his organisation always tries "to find how we can translate the segmentation into the customer database." His description of this translation process (and challenge) hints towards a heterogeneous affair – it is not simply a matter of segmentation fusing with digital results on its own. Rather it is one in which a mix of actors, analysts, marketers and databases, working together to produce something (hopefully) workable for marketing. It is clearly a messy practice putting all of these pieces together.

This difficulty in making workable marketing bears out in the description of a variety of (f)actors involved in the process, particularly in how segments might be engaged towards purchase. Jan, a market modelling expert in the Netherlands puts it this way:

> Jan: [W]hat you can do is post content, you can show people ads, you can put things on sale, you can give away coupons, you can ask people to refer their friends. I mean there are a million things that marketers can do in a digital setting and so when you talk about combining all the data to figure out what it is you are doing that is causing people to buy things or causing them not to buy things.

This 'figuring out' phrase mixes human understanding and decision making with digital processes, devices and indicators. There is a clear process of "experiential learning" which is built upon an understanding of what was previously "uncertain and unknown" (Thrift 1997, 39). These practices are in line with one of the author's previous research in which loyalty programme executives note the need to learn through 'trial and error' (Pridmore 2010, 573). As one interviewee in that study describes it:

> We basically undertake a constant test-and-learn marketing application to [the] information [we process]. So we try discount offers, coupons, invitations to events, recognition or rewards where we are giving them a gift or a special experience. And we basically learn from every one of those. And we measure the impact of each of those activities, using experimental design basically with test and control groups. And then measure and say what's the right investment in different customer groups, according to their value segmentation, their category orientation, in terms of which categories they purchase in, their frequency behaviour. (ibid., 573-4)

These same 'messy' experiences are reiterated in segmentation practices more generally. Michael, a director of analytics in a US company, responds to how segments are developed this way:

> Michael: It's really about experimentation. In the very best organizations, [...] they are doing controlled experiments and making smaller segments out of bigger segments for them to kind of understand what's working and what's not... [I]t's really constant learning, moving back into segmentation and refining it.

Interestingly, the challenges of experimenting with and designing segmentation may not be described as a new problem because of the influx of new sources of data. This is something that John, a marketing segmentation researcher at a Dutch university reiterates. From an academic perspective, data has always "been bigger than we are able to process" even though he notes that now "we just can process more." He argues that we have always "had a big data problem as long as we have had computing" suggesting that what technically can be done is perhaps distinct from what is actually able to be done. This is significantly pertinent with the potential integration of new and social media data, however as noted below, much of this remains (under)utilized. It echoes Foedermayr and Diamantopoulos' finding a number of years ago (2008) in

their study of segmentation practices and the potential for new techniques, that old practices die hard:

> What is perhaps most surprising, however, is that about one-third of respondents did not use any of the segmentation techniques listed by the authors but instead relied on intuition or gut feeling, due to their unfamiliarity with the techniques (almost half of the non-users were not even aware of the more sophisticated techniques) and/or difficulties to understand and apply them. (2008, 252-3)

5. The (Limited) Integration of New and Social Media Data

Social media and new media are said to provide significant opportunities for marketers. Despite some reservations (Fournier and Avery 2011), these are seen to provide the potential for "enhanced customer engagement" particularly as these allow consumers to voluntarily self-segment in relation to a number of categories (Canhoto, Clark and Fennemore 2013, 413). These means of engagement and the ability of new technologies to track consumer behaviour have significantly contributed to the development of 'big data.' Yet the segmentation practitioners interviewed for this study were ambivalent about the potential in integrating these new sources of data into their practices. On the one hand, Jaap, a product marketing manager for a media company in the Netherlands, makes it clear that there is a lot of "hype" around these practices:

> Jaap: You have big data, which is what all people are talking about now. It's a bit of a hype, I have to say. [...] [T]here is a problem with social media. If you consider social media as being the total picture, you forget that there are also some groups which are not on social media.

Jan does not see this as hype necessarily, but has his own set of concerns:

> Jan: I don't think that segmentation and its approach really will change through new media. I don't think it's all 'hype' because this would suggest that it would become less important later. I think it will stay, social media and new media, and it just becomes part of the topics [within] segmentations. ...It's not about the approach of how we do segmentation.

Given that these interviewees are embedded in established segmentation practices, it is not surprising that there is some hesitancy towards upending their practices toward what Tupot and Stock call a "new order segmentation" – one based on social media and involving activities such as "crowdsourcing and culture mapping" (Tupot and Stock 2010, 41).

The issue, as Jan suggests above, is seen as the marriage of segmentation practices and the use of data that is seen as less than complete. Karel articulates the problem this way:

> Karel: Traditional social media is difficult. We see fragments of conversations; we do not know enough from the person behind, who says something on Twitter, to understand the context. But if we build a special online platform

> and let the consumers talk to each other within that controlled environment, where we know more about these consumers and are able to offer additional questions and relate information to each other [...], then we can make a segmentation based on the data.

Karel suggests a desire to really control the possibilities of 'social media like' interactions on a proprietary platform, but this is not always possible. In fact, although a number of segmentation practitioners are able to set up their own community forums – independent platforms for consumer engagement – these tend to be exceptions. What can occur is to experiment on existing platforms and learn from these. Lars, a statistician working on segmentation at a Dutch research company, noted the attempt and trouble his organisation had in relation to this:

> Lars: We have a couple of experiments running to predict class membership of people based on what they say or do, but they are not always entirely successful so we have an experiment where we assign people to 'mentality milieus' based on what is said on Twitter. We do not have high enough accuracy to start to go into a new direction yet. We did a lot better than chance, but not good enough to get a clear view.

Although there may be a number of organisations that have successfully integrated social media data with segmentation practices, in our small sample of active practitioners in the field, Lars' attempt to do this explicitly is one of the only examples of this currently in practice. This is perhaps because Lars' organisation is specifically focused on the development of bringing in consumer insights, and social media has become a key way to do this – but as of yet remains unreliable. Though it is likely that social media engagement will increase, it seems likely to occur slowly and not as a foundational change to segmentation as we know it – or at least not yet. Again the slow pace at which the integration of technological innovation is fully completed in business practices is evident.

Rather than a radical transformation, social media is largely seen as supplemental to already existing segmentation practices rather than significantly shifting these. Again, from an academic perspective, Nicholas, a university based segmentation researcher notes that in comparison to organising focus groups worldwide, "social media [are] much easier to monitor at once" but that it is not "the core of the solution." In attempting to connect an academic perspective with everyday practice, he suggests:

> Nicholas: Segmentation is a foundation of product strategy. Quite often we develop these products for these people and those products for those people [...] it can be extremely costly for the company [when they get it wrong but] we are not ready to have such a complete overview of the market with social media.

Even without this overview, Michael notes that getting "value" from social media is "a bigger challenge that is yet to be installed." This yet to be installed value does have the potential to change segmentation practices, to significantly affect the life chances of those customers based on the accumulation of ad-

vantages and disadvantages derived from those segmentations (Gandy 2009). However, as of yet social media data have limited effects. As Michael sees it, forms of social media in connection to segmentation practices are "another way you are touching your customers."

Experimentation continues, but it is still early in the use of social media. Lars notes that it is something "really in development now at our company because at the moment we are not satisfied with the amount of accuracy we get." It is hard, as Nicholas notes, to match "research with segments that we see offline" with those on social media, so, he continues "we kind of have two worlds that are largely uncorrelated between one another." He suggests that it is likely that for a long time, brands will have to have a dual strategy in relation to their segmentation practices. He says that companies will likely have a "communication segmentation strategy and a newer strategy for Facebook" as opposed to more traditional forms of media.

More importantly, what is clear from these practitioners is that the use of social and new media remains largely 'unknown.' One of the most interesting points raised in the process was that to some extent, these platforms are seen to have built-in segmentation. Dirk notes this as follows:

> Dirk: [I] believe that people, consumers are segmenting themselves on the internet, because they want to give information about themselves on a various number of social media, and to tell other people who they are and what they like. So you don't even need to do a customer search per se to get a clue of what people are like and how you can differentiate people.

This 'self-segmentation' is also noted by Canhoto, Clark, and Fennemore, who state this can "improve accuracy" and allow marketers to overcome "one of the key challenges of segmentation: being able to observe key drivers of behaviour" (2013, 423). However, there is significant difficultly in seamlessly integrating the 'segmentation' derived from social media and that of already existing segment and segmentation practices in other organisations. John's view, as a researcher on segmentation, is that "the adoption of social media happened very quickly and companies understand that it is important, but have not moved as quickly as the social change." He continues: "Companies are sometimes not willing to invest heavily into something that they don't see as extremely important, so I suppose it will take time." While academics may emphasize the importance of social media data being integrated into segmentation, in practice this is still limited. Eventually it is evident that social media will be an important part of segmentation, if not as a new foundation for these practices then as a key resource over time. Social media may become "experimental platforms" for segmentation as they arguably are for marketing more generally (Carah 2015, 15), but this will be on a slower timeline than may be 'hyped' in marketing journals. More likely, this too will be overrun by new sources and forms of data gathering such as through mobile technologies and the integration of multiple

data sources through application programming interfaces (APIs), but it is to these trajectories and challenges for segmentation ahead that we now turn.

6. Conclusion: Trajectories and Challenges for Segmentation

What the current practice of segmentation and the limited integration of social media begin to demonstrate is the same concern Sally Dibb (1998) had about segmentation almost 20 years ago: businesses still have problems operationalizing segmentation. Given the academic emphasis on new forms and techniques of segmentation practices developed from and integrated with new forms of data, there remains, at least as far as is evident in our study and as noted by Harrison and Kjellberg (2010, 785), an 'academic-practitioner gulf.' In this case, the 'yet to be installed' integration of social media data is a reminder that segmentation evolves in most businesses very slowly. While there is significant potential and promise in the advent of forms of social media integration, for all of the practitioners interviewed for this research its full integration has yet to occur in practice. Marketing practices, including that of segmentation, has historically been both ahead and behind expectations, sometimes advancing quite quickly and other times relatively slowly. The emergence of social media in relation to segmentation seems to be taking the latter path.

What then can be said about current segmentation in light of this? Despite the promises of social and new media and of the advent of 'big data', *old ways of segmentation and classification die hard and are seen as and often are evaluated as (more) effective.* The efforts needed to realign segmentation and classification marketing practices in line with the full exploitation of these forms of data has not occurred. It seems that companies have not yet "developed the required social media capabilities" needed to facilitate effective customer management strategies (Simkin and Dibb 2013, 392). Social media add "a layer of complexity" to already existing practices (Canhoto, Clark and Fennemore 2013, 423), and invariably 'tried and true' methods are seen as more effective than the integration of new but less accurate social media oriented segmentation. Given the additional complexity, there is an emphasis on "simplistic and intuitive segmentation approaches" as noted by Quinn (2009, 255) that appeal to more traditional analyses of data.

Incremental change is occurring on the basis of experimentation with social media data as noted by some of the interviewees for this study, but given the history of marketing practices, it seems likely that these changes will soon be overshadowed by new forms of marketing discourse. Additionally, while the potential for consumers to actively participate in forms of marketing has shifted with the advent of social media, the integration of forms of self-segmentation

possible on social media has not widely been integrated into 'normal' segmentation. Although most all of these platforms allow for the collection of user data with their agreement, the data that flows on the basis of application programming interfaces (Pridmore 2016) does not always easily align with the legacy systems or previous segmentation. Participation in these contexts – that is gaining access to a consumer's data on social media – is also done largely by a small minority of customers. This may be useful in some contexts and these people may affect organizational practices, however real engagement with a more representative sample of consumers is limited.

What then can be said about the effects of current segmentation practices on segmentation subjects given this sometimes used but more often 'yet-to-be installed' aspect of social media data? It is clear that social media has become a crucial aspect of contemporary production and consumption practices. There is no doubt that their full integration into the development of segmentations will proliferate beyond the presumably more successful market ventures of some (technology-focused) companies. Social media are now very much part of the moral order of markets and as such have and will have important implications for markets in the coming years. Yet the point of this article was to problematise to some extent the anticipated normativity of social media based segmentations by differentiating the potentials and intentions from actual practices in the field. Our empirical investigations indicate a disparity between rhetoric and practice. However, this is not to say that segmentation practices do not have an impact. In fact, it is clear that older methods win out and these remain stable in evaluating and creating markets and consumers, of 'per-forming' these markets and consumers on a daily basis (Araujo 2007). That the potential that is a part of the self-selection and self-segmentation practices enabled by the use of social media has not been integrated seems to suggest two things that need further exploration. *First*, this speaks to the agential limitations of consumers and how narratives of consumer empowerment and participation – perhaps that of aspirations for prosumption transforming capitalism (Ritzer and Jurgenson 2010) – need to be examined closely and empirically. *Second*, this highlights issues related to the organisational intransigence of institutions. That is, in a time in which nimble, adaptive and fast moving businesses are highly valued, a number of companies demonstrate only a slow and incremental adaptation to highly valued trends in practice.

Understanding these two concerns and realigning segmentation towards relevant social media data requires substantial resources and organizational change, in addition to finding the means to motivate more consumers towards participation. In the meantime, actual practices remain messy. As noted, the successful deployment of social media derived segmentation raises some significant concerns. This is particularly the case with regards to increasingly automated and algorithmic decision making and the lack of transparent data processing that affect people's everyday experiences, opportunities and life

chances (Fourcade and Healy 2017 [2013]; Lyon 2003). These concerns have been made clear in both the introduction to this special issue, the tensions experienced and described in Krenn (2017), and in the concern for 'living classifications' articulated by Bowker and Star (2000). Yet this paper notes the 'slippage' or the messiness between these more disconcerting potentials and possibilities in how social media is (and more often is not) being aligned with segmentation in marketing practices. It begins to further demonstrate the "gap between what the technology allows and what organisations do in practice" (Canhoto, Clark and Fennemore 2013, 425). There is a separation between what might be expected by academic descriptions and actual practice (Harrison and Kjellberg 2010). Given the pace at which new technological interventions supersede marketing practices, it is likely that social media data will be increasingly integrated into segmentation while a future focus on mobile data, ubiquitous networked devices (as in the internet of things), or some other new form of data becomes 'essential' to best segmentation practice. This is not to suggest that there remain a number of social, ethical and legal concerns in the integration of this data or whatever further emerges from algorithmic analysis that grew from older practices like Knowledge Data Discovery. Rather, it is to note that efforts to capture or produce segments in ways that encompass all of the data and techniques currently available have always seemingly escaped marketer's full grasp in practice. Given the twenty plus years of slow integration of new data and techniques, this seems likely to continue.

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