

RESEARCH ROBOTS

A dramatic new way to conduct research & generate insights

John Kearon, Chief Juicer, john.kearon@brainjuicer.com +44 (0) 7967 175621

Peter Harrison, Innovation Manager, peter.harrison@brainjuicer.com +44 (0) 7968 605 529

BrainJuicer Ltd, 1 Cavendish Place, London, W1G 0QF

Abstract

This paper describes a new research methodology called DigiViduals™ which uses programmed research robots to search for social media content that brings a target group, attitudinal segment, trend, brand persona, or emotional territory to life through rich imagery and storytelling. With reference to two case studies this paper will reveal how DigiViduals can provide us with a deep and empathetic understanding of people; their attitudes, passions and behaviours.

Introduction

“Social media (from Facebook to blogs, from Twitter to Wikipedia, from Flickr to YouTube) has created many new ways for market researchers to explore people’s relationships with brands, society and each other. However, the world of social media is very different from the traditional world of marketing research surveys.” (Poynter, 2010)

It is a fascinating time to be in market research. The explosion of the internet during the 90s and 00s moved surveys from the doorstep to the desktop, providing greater speed and reducing costs. It offered a new channel through which traditional research could be conducted, but for a time it only succeeded in moving off-line traditional quantitative methodologies into the online sphere.

But the internet has changed dramatically in the last decade. Social Media and Web 2.0 have revolutionised the way people interact with each other on the internet, moving communication from a one-way flow of information (site to person) to a two- or even multi-way dialogue where people upload and share their own content and opinions. With well over a billion people on the web, the teeming mass of humanity in all its glorious variations is now accessible. This presents opportunities for new types of research and understanding, and the potential to conduct research without either questionnaires or respondents – the very fabric of the industry since it began. Furthermore developments in neuroscience, network theory and crowd behaviour have challenged our assumptions about what really motivates people, what influences their behaviour and how as researchers we should go about understanding them. From this thinking, new approaches to research are emerging providing new levels of insight.

Researching social media comes with its own unique challenges such as respecting privacy concerns and sampling issues that have slowed its uptake to date. But whilst the privacy debate rages on, particularly around Facebook, people are still posting their thoughts, pictures and videos to share with the world who they are. This rich seam of information together with the ‘We’ research philosophy, which seeks to harness and understand mass behaviour, provides significant scope for the research industry to innovate. To begin to unravel human truths from social media, we set ourselves a challenge that would stretch conventional research thinking and provide us with a practical tool to enhance consumer understanding.

The Challenge: to organise people’s web postings into coherent and colourful stories that provide insight into the thoughts, attitudes and behaviours of pre-defined segments or typologies.

Before discussing our innovative response to this challenge, we’ll first look at current approaches to social media research.

Context: Social Media

“We are witnessing the emergence of a population that is ever more willing to record, and share, their experiences: mash them up and submit them to their friends and other community members for evaluation, and allow their ‘reputations’ to be built via these assessments.” (Besprosvan & Oyarzun, 2009)

Social Media and Web 2.0 have revolutionised communication and information flow as radically as the printing press did in the 15th Century. People are readily expressing themselves across a range of sites: Twitter now has [over 100 million individual users](#) (Reuters April 2010), [Facebook](#) has 400 million active users contributing on average 70 pieces of content per month (Facebook Pressroom statistics). And it’s not just talk – they also upload pictures, bid for items, listen to music and post videos. In October 2009 Flickr received its [4 billionth photo](#) (Flickr), 24 hours worth of video are uploaded every minute to YouTube (YouTube Factsheet), ebay.co.uk has [over 10 million items for sale at any one time](#) (www.ebay.com). The internet is awash with tiny fragments of information that, put together in the right way, have the potential to provide us with a deeper understanding of people.

This potential has been recognised across the research industry, not least by Huberman and Asur when they state: *“Social media expresses a collective wisdom which, when properly tapped, can yield an extremely powerful and accurate indicator of future outcomes”* (Huberman & Asur, 2010).

However there are two problems with turning this information into insightful knowledge – the web is huge and the web is diverse. How do you piece together this disparate data into coherent stories with relevance and meaning? How can you identify individuals or segments from the multitude of voices on the web?

Sentiment analysis and netnography are two research methodologies that have risen to extract insight from the social media space. They track and interpret people’s online conversations and activities. The success of these approaches together with the speed of uptake of social media continues to add credibility to its use as a place to conduct research. In the following section we outline the key trends in these new research approaches.

Sentiment Analysis

Companies such as BrandWatch, Affect Labs, MotiveQuest Opsec alongside Nielsen BuzzMetrics have developed tools that continuously search thousands of blogs and social media sites for people writing about their clients’ brands. Their complex algorithms identify what proportion of the comments is positive versus negative. This task is of course made all the more difficult by the double-meaning of certain words, for example consider how to automatically de-code ‘wicked’, ‘bad’ and ‘bomb’ which can all be used in a positive context. When compiled as trend data however it is possible to measure the impact of news stories, marketing initiatives and product launches on brand perceptions. This provides an output similar to traditional Brand Health Trackers but in real time and with huge sample sizes, and with the added advantage of a deeper qualitative understanding behind the numbers.

It does have its drawbacks however; resolution in the data is dependent on how widely a category or brand is discussed. It’s also hard to isolate who is saying what, as information is often limited with regard to demographics and target users, although in an age where it is now possible to buy online media according to passion rather than by demographic, this is simply emblematic of a broader shift in marketing focus. This will be debated further later in the paper.

Netnography / E-ethnography

An increasingly popular method to extract meaning from the virtual world is Netnography, which solves the problem of the internet’s size by targeting a small, self-defined portion of it. Netnography targets established communities on the internet and studies their behaviour and how they interact, much in the same way as traditional ethnography. In the words of Robert Kozinets, a pioneering netnographer *“netnography is faster, simpler, and much less expensive than traditional ethnography. It can allow almost up to the minute assessments of consumers’ collective pulse”* (Kozinets, 2006).

However, almost by definition, netnography only studies self-selected groups of people such as Star Trek fans (Kozinets) and Apple Mac aficionados (Belk & Tumbat). Although sites like Kaboodle and Mumsnet open the door to a wider audience, for many brands, there is a need to study ‘ordinary’ people who do not necessarily label themselves in this way. The challenge for research is to classify people’s web postings and reliably associate them with a particular segment or theme.

Whilst the current research approaches to social media are highly effective at brand tracking and gaining understanding of particular online communities, they don’t solve our initial challenge of a broader study of segments or typologies that do not reveal themselves in specialist forums.

We believe there remains a substantial opportunity to challenge the established way of understanding consumers by mining the social media universe. New techniques combined with a new research philosophy open the door to whole new forms of market research that could support creativity and decision making for marketers and designers.

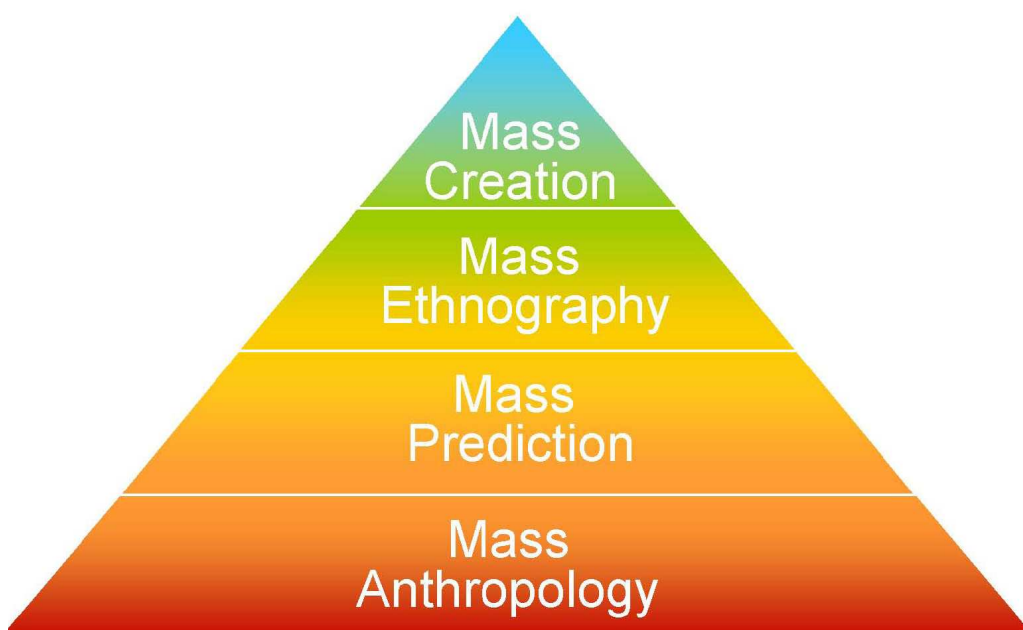
New Research Philosophy

“In the age of the internet, despite having the most powerful and ubiquitous communication advances at its disposal, the market research industry has used the web merely to conduct the same research online as it would have done offline.” (Oxley and Light, 2010)

In step with advances in digital technology and communications, a new way of thinking about research is emerging that challenges some of the philosophical underpinnings of the industry. It is becoming increasingly clear from the social sciences and psychology that we are social and emotional creatures, more influenced by what other people think and by our emotions than we realise or care to admit. In their 2009 paper Kearon and Earls outlined a vision for a new blueprint for research, calling for a shift from ‘Me’ research, in which we ask a target sample for their individual response to stimulus, to a world of ‘we’ research, in which respondents are participants who collaborate with us and who are valued for their observations and judgements on what they see.¹

Four dimensions of ‘We’ research were proposed, summarised briefly in Figure 1.

Figure 1



Four Dimensions of ‘We’ Research.

Mass Anthropology: Mass Anthropology is the observation of mass behaviour and perfectly lends itself to social media where people’s behaviours are being continuously recorded. This represents a dramatic shift away from the traditional model of research where a ‘researcher’ asks questions of a ‘respondent’ towards a less intrusive form of research that observes shifts and changes in mass behaviour, without intervention or prejudice.

Mass Prediction: On the surface, Mass Prediction looks like traditional quantitative research but it has two key distinctions: first, the sampling is random, and never uses specialist groups or demographics; and second, respondents predict (often through a form of betting or buying or selling imaginary shares) how well an idea will perform in real life rather than how they would respond for themselves or how likely they would be to buy it. The most famous example is the Iowa Electronics Market which has been reliably predicting the outcome of American elections since 1988 by allowing people to buy and sell imaginary futures “contracts” for election candidates – this technique has been more accurate than the top poll 75% of the time. BrainJuicer’s Predictive Markets methodology successfully uses this principle to measure the effectiveness of concepts, and has proved to be as accurate as, and more discerning than, traditional monadic testing (Kearon, Predictive Markets, 2007).

Mass Ethnography: This technique consists of briefing ordinary people on an ethnographic research assignment and sending them out into the world to report on what they observe. For example, this experimental technique has been used successfully by BrainJuicer in the pubs of Newcastle to uncover interesting insights about drinking behaviour and how the energy levels shift up a gear as soon as a fancily dressed group comes in (Kearon & Earls, 2009).

Mass Creation: Crowd sourcing has become a buzz-word in innovation circles with the growth of sites such as Innocentive that reward people for discovering solutions to pressing business solutions and Wikipedia which is the accumulation of experience of thousands of people. This technique taps the creativity and knowledge of people with often impressive results.

We have created a new approach to Mass Anthropology to explore social media and provide fresh insight across segments and typologies. The approach goes broader than simply understanding the relationship a person has with a brand or product category, and provides empathetic understanding of their passions, attitudes and values.

From understanding to empathy: A new research approach using social media – DigiViduals™

At BrainJuicer we have been working with digital media specialists Philter Phactory to create a new generation of online research tools that harvest information shared across social media platforms. Our first product is called ‘DigiViduals™’ and is based on Philter Phactory’s Demo Graphic Replicator platform. We believe that it provides a unique way of converting social media content into real insight and understanding of target audiences, segmentations, brand personas, trends or anything else a brand would want have an enriched view of. We see this as the beginning of a genuinely new approach to online research in the world of Web 2.0.

DigiViduals are online robotic researchers, programmed to represent a particular type of person. They conduct automated mass anthropology, searching social media sites for pictures, videos, songs, blogs and shopping items that match their persona. From the thousands of artefacts that are returned we create ‘life-boards’ and ‘day-in-the-life-videos’ to visually communicate a realistic representation of people’s lives, motivations and frustrations, this is used to fuel creative marketing and NPD activities

DigiViduals are the next generation of creative search engines, able to turn the complex, quantitative and abstract into a single, human and far more understandable representation. They enable a far easier but also richer understanding of a target group, attitudinal segment, trend, brand persona, or emotional territory. DigiViduals help us understand what the passions, frustrations and fears of any group look like and help build a rounded emotionally rich picture of the group of interest. They can make a major contribution to a number of research and marketing tasks:

- 1. Segmentation/Target Audience Enrichment and Understanding:** Ability to create a quantitatively accurate but ethnographically rich persona of any audience. Having an empathetic sense of your target market makes creating relevant marketing a more intuitive experience. This knowledge can also provide direction on the best marketing strategy for a particular customer segment.
- 2. Brand Persona Enrichment and Understanding:** Ability to create a ‘real’ person to represent the brand persona and be able to follow and understand them.
- 3. Trend Enriching / Tracking:** Turning something usually quite abstract into a person that embodies and enriches a trend and follows it over time.
- 4. Insight Generation:** Understanding the audience, inventing products that would fit them and then reverse engineering what insight connects the product to the audience. This has proved a very rich way of generating very potent insights.
- 5. Insight Tracking:** As an extension of Insight Generation, just leave the DigiViduals running to follow their lives over the course of the year, to generate insights on an ongoing basis.
- 6. New Product Development:** DigiVidual output provides large amounts of relevant stimuli for ideation. Knowing a character in such detail makes it easier to generate ideas that would delight them.

How Do You Create a Research Robot?

The first stage in a DigiViduals project is to programme the research robot to reflect the audience, trend, persona etc in question. We typically start with findings from segmentation studies, in particular the attitudinal and life-stage aspects. We then work with the client team to define the DigiViduals' 'DNA' by agreeing a set of key words that define the character—these determine the content that the online research robot will search for. These words are programmed and the DigiVidual™ is born.

The keywords pass through Philter Phactory's social media search and analysis system to first source the tweets and then the content, returning a vivid picture of the personality we programmed at the DNA stage. Philter Phactory's advanced search system combines our programmed data with temporal influences such as the weather and the prevalent emotion felt by the demographic to ensure the final character is three dimensional.

"This method is an advance over simpler search and presentation techniques as it introduces a controlled element of serendipity into the results and presents them as complete personas rather than abstract data sets." (Rob Myers, Philter Phactory)

The DigiVidual's 'DNA' is composed of three sets of words, that each inform the search in a different way.

- **Emotional words:** Each DigiVidual is assigned a range of emotional states that reflect their lifestyle ('happy', 'stressed', 'delighted' etc). Each of the emotional words is then assigned associated trigger words, these are words that are likely to prompt that emotion – for example things that make a character happy could be 'cleanliness', 'me time', 'efficiency' and 'order'.
- **Core characteristics:** Words that sum up the character, their key attributes. This could be 'mum', 'rushed', or 'laugh'.
- **Routine words:** The research robot goes out to search once an hour, so at a given time in the day we ask it to look for activities the character might be doing, for example 8:00 might be 'breakfast', 9:00 could be 'commute', and so on.

Each time the DigiViduals search they complete the following three phases:

Phase One – WeFeelFine ('WFF')

What is WeFeelFine?

WFF is a site that searches blogs worldwide for people talking about their feelings—essentially any sentence that contains "I feel..." or "I am feeling" will be collected and published by the site. It then counts the number of people who feel each emotion, so you can see how people are feeling at any given moment in time. One of the useful functions of the site is that it allows you to refine your search by demographics, so we are able to see, for example, what females, in London, in their 30s are feeling at that moment in time. www.wefeelfine.com

To make our DigiViduals more reflective of the target market's demographics we use the filtering function on WeFeelFine to match their emotional words with what others in the same demographic are feeling. This emotional key word serves as the starting point for the second phase of our search.

Phase Two - Twitter

What is Twitter?

For those not familiar with the "micro-blogging" site then the best way to learn is to have a look (www.twitter.com)! Essentially users write text message length posts (called 'tweets') onto their profile about anything, ranging from news to chit chat to humorous links to what they happen to be doing, these tweets are then visible to the rest of the world. Members can also choose to 'follow' other people, meaning that they can easily keep up-to-date with what these people are posting. Users typically follow friends, celebrities (Stephen Fry is a particularly active tweeter) and/or people with interesting thoughts

or opinions. If you see a tweet that you like for some reason then you can “retweet” it – this means you literally republish the tweet onto your own account for your followers to read, we find that viral adverts or videos are often shared in this way.

The next phase of our search involves searching Twitter for tweets that reflect our character’s key word profile and can work in one of two ways:

1. From WeFeelFine we select the strongest emotional word together with its associated keywords to search Twitter, for example if our demographic is ‘happy’ at that time we would search for tweets containing the word ‘happy’ and one of ‘chocolate’, ‘beauty’, ‘food’, ‘television’ (the associated keywords).
2. Search using an assortment of the core characteristics and time-specific routine words.

By the end of this phase the research robot has identified a tweet that reflects an element of their personality and emotional state, and this tweet is then used to inform the third phase of the search.

Phase Three - Content

The research robot then conducts a third search on other social media sites; Flickr (photos), YouTube (videos), Last.fm (music), eBay (items) and Google Books. The search terms it uses are a combination of the core characteristic words and the words from the selected tweet from Phase Two. Incorporating the words from the tweet adds breadth to our searches, returns some things that we wouldn’t have necessarily expected at the outset, and provides interesting depth for a convincing character. All of the content gets automatically uploaded onto a blog site called Posterous.

Creating the Lifeboard & DigiVideo™

Although the robots do all of the content collection for DigiViduals it is down to us human researchers to use our judgement and skills of perception to add life to the lifeboards. It takes only a few days for the DigiVidual™ robot to collect hundreds even thousands of pieces of content on Posterous, including videos, pictures, shopping items etc. Reviewing and absorbing this amount of information is hard to do on screen, so we do things the old fashioned way and print the pages and cut out each individual item. We then apply a process of psycho-social analysis, where we sift through each ‘artefact’ and identify the recurring themes for each character. The content relates to the tweets of thousands of people, therefore the researcher plays an integral role in using their experience and creativity to interpret and build the characters.

Having identified the DigiVidual’s main traits we then organise them into a flowing narrative, this is what makes the DigiVidual feel like a real person that we can relate to. One of our DigiViduals was a busy mother who had images relating to stress and the need to be organised and powerful, yet underlying all of this was a deeply held wish to relax and get away from it all. As in real life often our physical reality is far away from our motivations and desires! The narrative is displayed on a large sheet of card, the images providing the stimulus with Post-It Notes acting as sign posts. This first lifeboard gives a good indication of how the final DigiVidual™ will turn out, although, as an iterative process, revisions will see the character develop as more stimuli is returned. Visually organising our thoughts in this way often unearths new connections that see us returning to Posterous and viewing the images with a fresh perspective. Once we have a strong sense of our character’s narrative we create a soft-copy for use in presentations.

We also design ‘DigiVideos™’ as a means to bring the characters to life even further. This is a day-in-the-life video for the DigiVidual, using not only the images from the search but also videos and music from YouTube and Last.fm. As a source of inspiration this brings yet more colour and feel to the character, enhancing its ability to communicate a sense of person. We believe that it is this multi-dimensional view of a segment or territory that differentiates DigiViduals, as a source of insight, from traditional research collection methods that predominantly rely on words and numbers.

Using Twitter for Quantitative Analysis

The use of Twitter enables us to establish how influential our DigiVidual characters are. Twitter allows us to collect certain data about each of the tweets and the people who post them, and we use this to create influence metrics. We have two key metrics, 'Broadcast' – how widely these people are listened to and 'Infectiousness' – how deeply people listen to them. We then combine these two measures to create an overall 'FireStarter™' rating, which is a measure of the breadth and depth of influence that each character (i.e. the client's attitudinal segment or trend) has.

- **Broadcast score:** We look at the follower and following data for each of the people whose tweets informed a DigiVidual. We then divide the number for followers they have with the number of people they follow to come up with a score. The average of a DigiVidual's score is used to create the overall Broadcast score. The rationale behind this is based in the reciprocal nature of Twitter – if you follow me, I'll follow you. By dividing the two we are able to differentiate between those who are sought after tweeters with a high proportion of followers Versus those who are less influential and follow others more than they are followed themselves.
- **Infectiousness score:** We look at the individual tweets of the DigiVidual and record how many times each has been retweeted, if this is high then we know this person is posting quality content that people listen to and pass on.
- **FireStarter™ rating:** A combination of the Broadcast and Infectiousness scores – the higher this score, the more influential the character.

This information, based on tens of thousands of tweets, tells clients which of their DigiViduals might be the most influential and quickest to evangelise about their products.

Foods Company Case Study

The following case study is based on a project we ran for a large global foods company between February and April 2010.

The Challenge

The Company had identified five trends together with a male and female typology for each. Together we programmed ten characters; a male and female character for each trend. The company wanted to understand these characters better, their attitudes, opinions and outlook on life. They had been created to help design the 'chocolate of the future' that responds to different needs and instincts of the consumer. DigiViduals were used to deepen their understanding of these territories and create a richer picture of who they are to help them make their decision.

There were two over-riding objectives to help them make this decision:

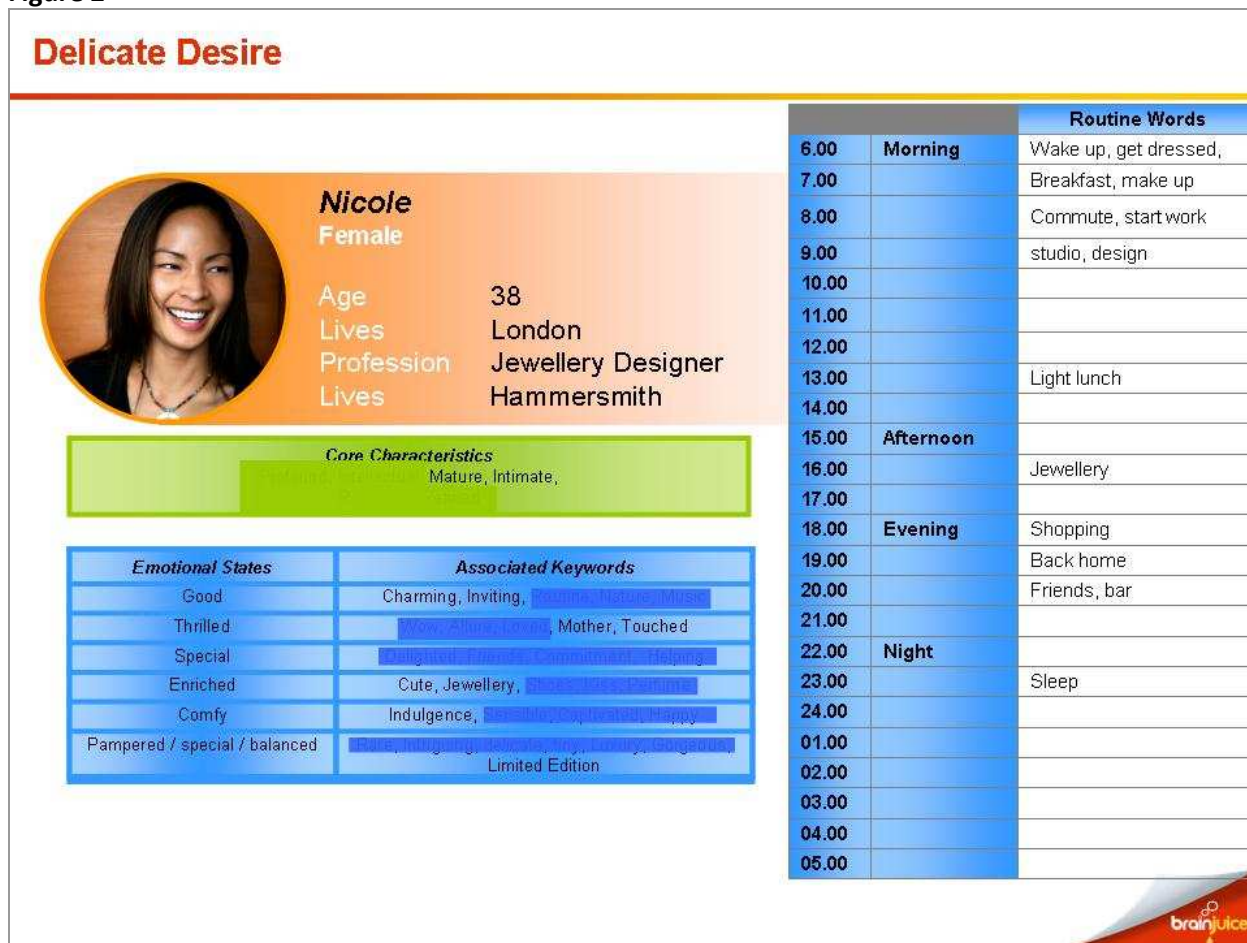
- How resonant and rich are each of the trends – how would they perform as a springboard for a future product range?
- How influential are each of the typologies? To inform their roll-out strategy the company wanted to know which territory would be the most fertile for development and which was most likely to offer the most loyalty for the longer term.

The Process

The company was already quite advanced in their understanding of the trends as this was part of a larger project. Working with them, we took this understanding and used it to develop the list of core characteristic words that would define the DigiViduals 'DNA'. This meant identifying the Emotional Words, Core Characteristics and Routine Words for each character. As part of this process we also selected a profile photo to 'fit' each character, and assigned a home and work address and a profession. The home and work addresses are quite important, as we can search for bars, restaurants, cafes etc that people like them go to in their local area, in this way we can create a more realistic story of their life, really portraying the DigiVidual™ as a living, breathing person.

As an example one of the DigiVidual’s profiles is shown in Figure 2 (with some of the words blanked out).

Figure 2



Example of a DigiVidual’s programmed words

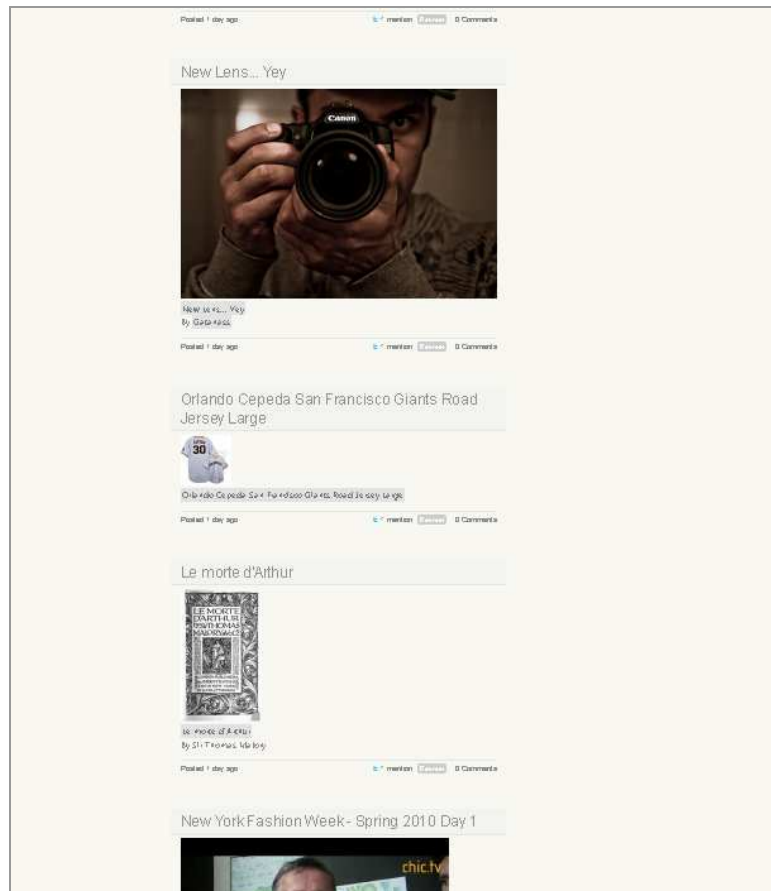
Nicole’s character was programmed to live in an affluent area of Hammersmith with good shops and green parks. This intuitively felt like the kind of place she would live and so we based her home there and her work address in Farringdon, a trendy boutique area of East London.

Her Core Characteristics reflected her personality; grown-up and refined, she was clearly a woman with particular tastes and an interest in ideas. We further expanded upon her character in her emotional states, by listing the different emotions that she would be likely to feel at any one time. For someone who takes such delight in life’s small details, emotional words like ‘enriched’ and ‘pampered’ suited her well. With each of these emotions we have associated key words – so if Nicole is feeling ‘enriched’ it is likely to be because she has come across something that’s ‘cute’, or perhaps some intricate ‘jewellery’, so each of these key words will be incorporated in the search too. It’s important that we link the emotions to the key words, because when the system is searching for the tweets it will look for those that include a combination of both. Otherwise searches for just the word ‘jewellery’ might return tweets such as “I hate jewellery”, which would not be appropriate to her character.

The ten DigiViduals were released into the internet and we kept track of their progress over the coming weeks. The characters found appropriate tweets based on their keywords (see Figure 2) and their resulting media searches led to content from Flickr, YouTube, eBay, Google Books and Last FM being posted onto their

blog site (see Figure 3). Each character had a blog site with content like this, appearing in one flowing blog, making it easy to scroll through and read the output in real time.

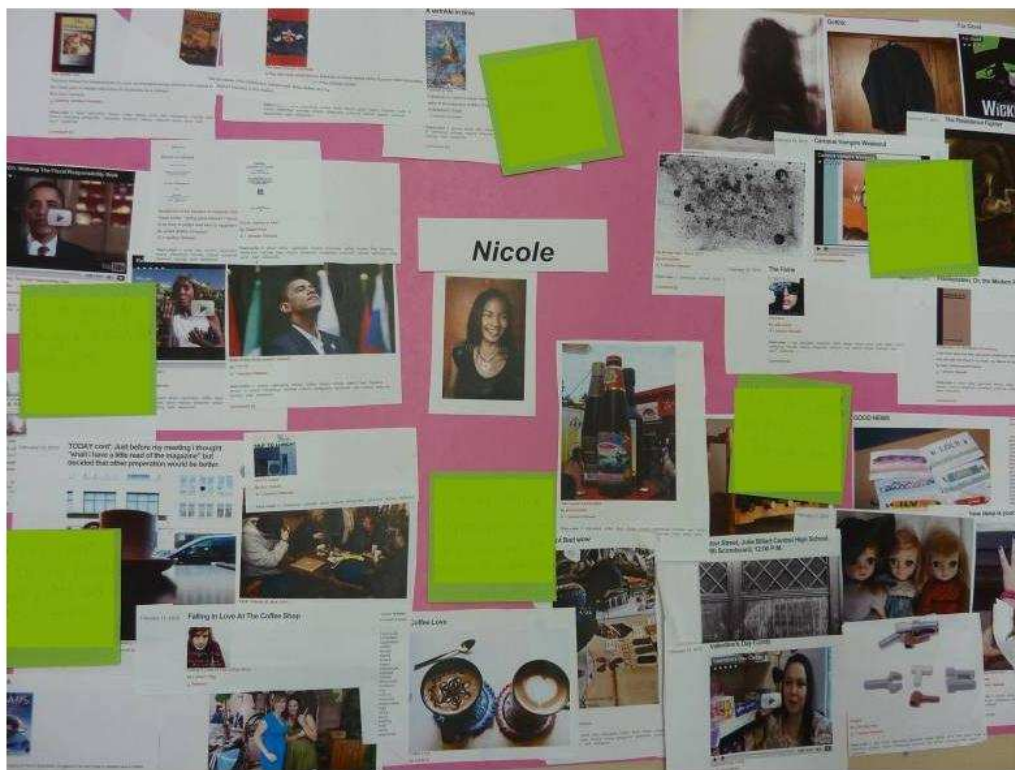
Figure 3



Part of a Posterous blog with content retrieved by the research robot

After two weeks we reviewed the material collected by the DigiViduals and formed an early hypothesis for each character. Recurring themes identified from their blog entries highlighted aspects of their characters. With Nicole for example we saw numerous pictures of dolls – intricately designed and dressed (see Figures 4 and 5). This is not something that we had been expecting or even specifically looking for, but because the character had an interest in intricate and cute things this is what the research robots found from real people’s tweets and blog posts. There were also videos and photos of ‘real’ coffee and coffee that was beautifully and artfully presented by expert baristas (see Figure 4). One video showed a man making a coffee in which he poured the milk in such a way that he created a picture of a dog’s face in the froth! Whilst individually these entries don’t mean anything when collected together into themes they give a powerful, rich and empathetic image of the character.

Figure 4



A hard copy of a lifeboard following our theming exercise (with theme names censored)

The DigiViduals continued to run for another four weeks and went through a second phase of analysis where we added to and confirmed our earlier hypothesis. By reporting in two stages like this we were able to validate our earlier ideas by identifying the same themes for a second time. It also meant there was a larger pool of images to select from, resulting in richer and more expressive output. Figure 4 is an example of the working hard copy of Nicole's lifeboard.

The imagery of the lifeboards and the stories that surrounded them provided the client team with a more colourful understanding of who their segments were. The lifeboards both added depth to things they already understood and raised new aspects of the characters that they hadn't previously considered. One of the benefits of using non-questioning research techniques is that they provide you with information you weren't expecting and that might not have been revealed by respondents if you talked to them directly. The DigiViduals created a narrative of their own with distinct personalities that were conceptually easy to comprehend.

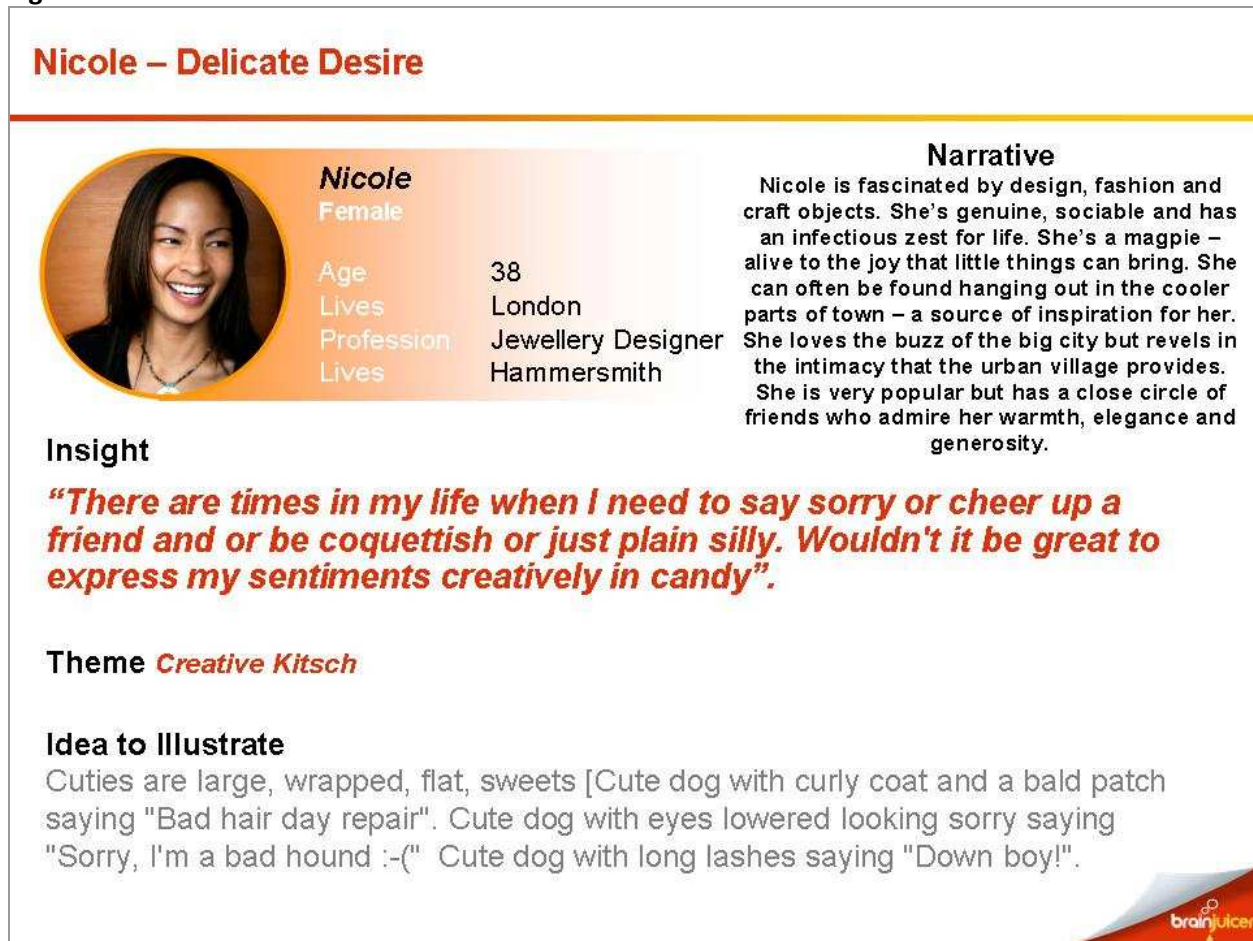
The strategic brief placed certain parameters on the direction of the project, and armed with a new qualitative understanding of the segments we were able to discard those that didn't 'fit' the strategic direction of the project. The remaining DigiViduals still held a lot of value and provided stimulus for insight generation, the problem now came how to isolate the characters with most potential.

From Lifeboard to Insight

Strong insights are rooted in real human understanding and serve as springboards for great communication and NPD. Our DigiViduals made way for compelling insights because they provided an empathetic understanding of their characters. From the lifeboard we derived a strong sense of who Nicole was and were

able to design the perfect candy concepts to suit her character, then working backwards from this tangible product idea we isolated the underlying insight that could serve as a platform for multiple future product ideas. Figure 6 shows an example of one such insight.

Figure 6



One of Nicole's concepts and insights

Quantitative Analysis

The quantitative data added another level of analysis and understanding of the characters and helped inform the final decision as to which territory to take forward. It was thought that the first buyers of a new product range needed to be influential consumers who would encourage a broader uptake of the product, so their level of social influence was vital. By this time we had approximately 5,000 unique tweets for each character, all of these tweets contained a combination of the emotional keywords or core characteristics/routine words. This massive amount of data gave us confidence in the reliability and validity of the findings.

The Broadcast, Influence and FireStarter scores provided us with a clear set of winners and losers. Nicole, above, scored impressively above the average on both broadcast and infectiousness metrics and had the highest overall FireStarter™ score. Three of the other characters also had strong scores. These metrics would have an important bearing on which territories the company would take forward by helping to identify which would be most likely to include early adopters and which were more mainstream territories.

Nicole's character was more appropriate for another project within the company, so although she scored well quantitatively a strategic decision was made to use this territory elsewhere. One character (trend) was chosen to be the initial target consumer for their project because his character was closer to the strategic

direction of the project and had a strong FireStarter™ score; a different character (trend) was then chosen to be the longer term 'destination market' for the new product range.

Both the qualitative and quantitative outputs were central in helping the team reach this important strategic decision. DigiViduals helped decision-making by providing an intuitive, emotional feel for the territories and an objective quantitative score. As well as informing strategy, the DigiViduals have provided the product team with a clear understanding of who they are designing new products for, in the form of fresh new consumer insights, and a strong sense of what type of product will work in any given territory.

To help make the output more easily communicable within the company a soft copy of the characters' lifeboards (see Figure 5 for an extract from one) was made along with written narratives of each character together with (Figure 6) a suggested insight and product that they would find attractive. Presenting characters in this intuitive way helps people understand the personality and flavour of the characters instinctively and empathetically. For Nicole we also created a DigiVideo™, this was a 'day-in-the-life' video complete with pictures, videos and a soundtrack - all drawn from online content generated by the DigiVidual. This is a novel way not just of doing research but also communicating the results, often a key challenge for research departments. By creating intuitive and easy to watch presentations, not only do we create better understanding but we also improve our ability to share this meaningfully with a wider audience.

Figure 5



A snapshot of Nicole's from her formatted lifeboard

What did we learn?

There was a strong sense from the client that working with DigiViduals gave a different perspective and point of view from traditional research techniques. From the company's feedback, and as evident from our discussions, DigiViduals provide an *empathetic understanding* of people – this is something that can not be contained in graphs or elicited from simple questions about attitudes and habits. It helps you to intuitively understand who the person is and what sort of products they'd like, whether it is from an aesthetic or functional perspective. The variety of media, including pictures and videos, provides a broader means of communicating important messages about who the segments are, this more intuitive understanding provides invaluable support during the creative and decision making processes.

Using DigiViduals in this process benefitted the marketing team on five levels:

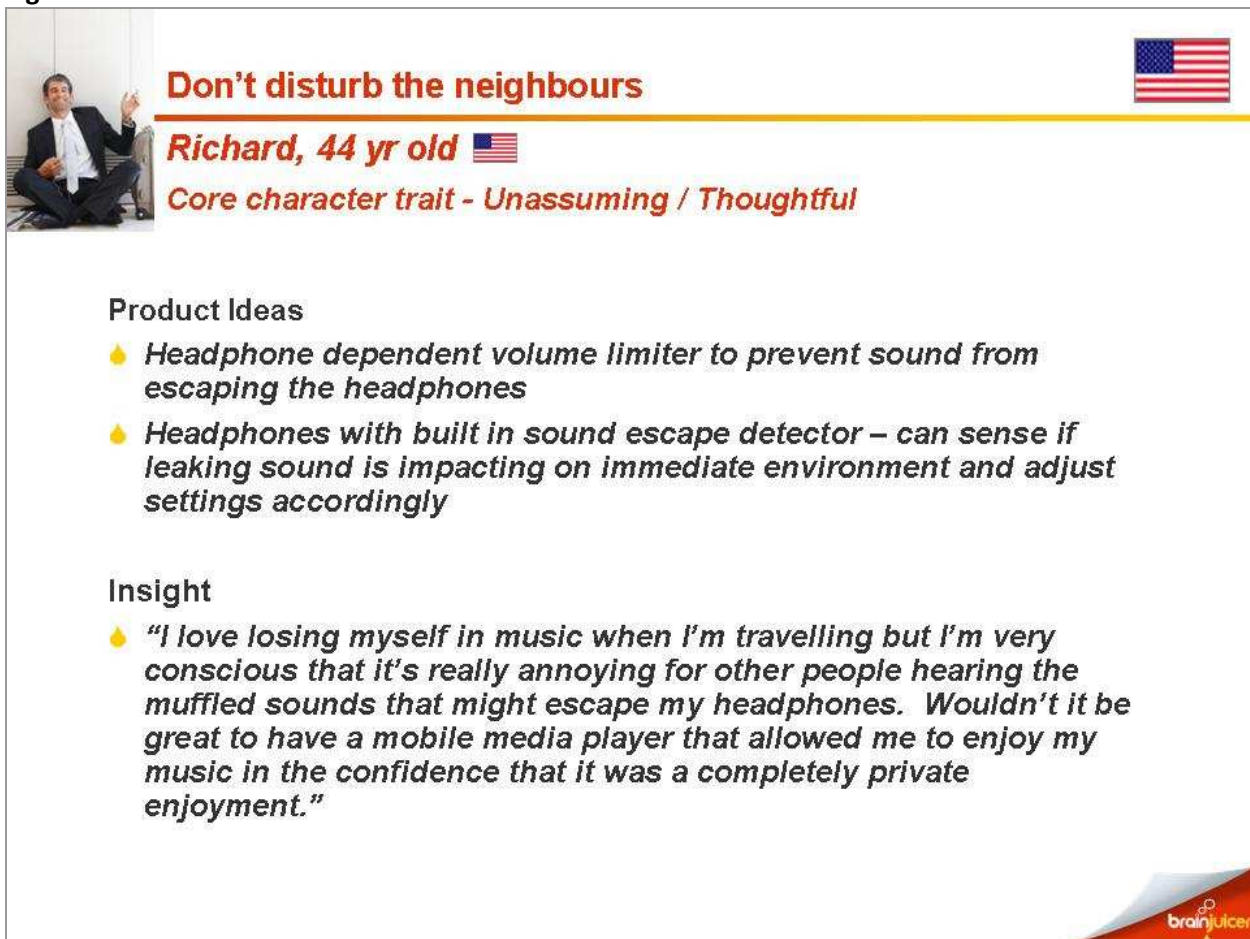
- **Strategic decision making** – determining which character was best to pursue based on qualitative 'fit' and quantitative relevance
- **Insights** – new product ideas together with related customer insights to guide future development
- **Creative stimulus** – the presentation, including the lifeboard and DigiVideo™ provide a strong platform for ideation and also design guidelines for packaging etc

- **Support future segmentation research** – from the lifeboards we’ve written segmentation questions to support market testing of product ideas
- **Internal communication and publicity** – providing tactile and rich outputs has helped the team to communicate customer understanding findings more broadly and effectively

Other Experiences with DigiViduals: Developing Insights for a large, global electronics company

Another project for a large, global electronics company focused on insight generation to help them develop the ‘ultimate sound product’ for portable music systems. The DigiViduals provided us with a well rounded picture of their target audience, enabling us to imagine new sound product ideas specifically for them. These tangible product ideas then helped us to articulate underlying consumer insights to serve as a platform for future product ideas (see Figure 7). By ‘knowing’ the people behind the segments, we could intuitively imagine products that they would want. Although it may seem counter intuitive, working backwards from these fully formed product ideas enabled us to uncover fresher and more resonant insights. In fact when we put the insights through BrainJuicer’s® quantitative Insights Validator®, five of the insights generated from the DigiVidual™ research were found to be significantly better than the company’s current top insight in this category. This supports our hypothesis that DigiViduals provide not just relevant and deep understanding of people, but also an inspiring springboard for new insights and product ideas.

Figure 7



Don't disturb the neighbours

Richard, 44 yr old 🇺🇸

Core character trait - Unassuming / Thoughtful

Product Ideas

- *Headphone dependent volume limiter to prevent sound from escaping the headphones*
- *Headphones with built in sound escape detector – can sense if leaking sound is impacting on immediate environment and adjust settings accordingly*

Insight

- *“I love losing myself in music when I’m travelling but I’m very conscious that it’s really annoying for other people hearing the muffled sounds that might escape my headphones. Wouldn’t it be great to have a mobile media player that allowed me to enjoy my music in the confidence that it was a completely private enjoyment.”*

brainjuicer

Example of product ideas and related insight from the sound project. This is for display purposes only and was not one of the ‘winning’ insights.

This project was conducted across three markets: Brazil, USA and Germany. Interestingly each market resulted in distinctive DigiViduals with different insights that were then validated both locally and globally.

Discussion

One question that frequently arises about DigiViduals is about the use of social media and whether it is a reliable and representative source of data for market research purposes. On one level this question reflects the one the research industry faced when initially moving research surveys online. Whilst internet usage increased dramatically in the late 90s, social media has seen an even steeper rate of uptake since the mid '00s (www.socialnomics.com) and this is not just confined to younger age groups as many expect – women aged 45-55 are the fastest growing demographic on Facebook for example. So whilst some 'types' of people are more likely to engage in social media than others, it is becoming more and more mainstream.

We assert that the debate around how demographically representative social media are should not preclude us from using it for inspiring exploratory research. In the case of DigiViduals the methodology actually samples by attitude rather than demographic, by looking for tweets that display the characteristics and opinions we are looking for, the basis of which has generally been uncovered by previous research. Although there are some measures in the process that take into account demographics (i.e. using demographic filters to select the relevant emotion in WFF) the focus of the project is segmentation by attitude. This sits neatly alongside a trend we are witnessing in media buying, where it is now possible to buy online media by passion rather than by demographic. Indeed we believe that DigiViduals would not be so revealing if we were simply to conduct searches by demographic; to get to the real insight and understanding we need to search by attitude and outlook.

Conclusion

Social Media provides opportunities for the research industry to observe and listen in ways and on a scale never previously possible. We can now automatically sift and filter many tens of thousands of people's thoughts to find relevant content and a far deeper and up-to-the-minute understanding of what really motivates them; compared with traditional research methods which rely on relatively small numbers of unreliable witnesses answering direct questions in a rather prescribed way and with large delays in results. Until recently, the objectives of online research have matched that of off-line research: we have simply taken off-line approaches online. A new research philosophy we refer to as 'we' research, coupled with the rise in online social media, has helped us to create a completely new and different strain of social media research.

DigiViduals embraces this new philosophy by studying mass behaviour across social media content; it is mass anthropology/ethnography in practice. It offers new possibilities for the use of social media content to illuminate our understanding of existing segments or customer typologies. It doesn't just rely on text analysis or blogs but encompasses other media such as videos and pictures.

Each search phase adds additional depth and breadth to the findings. With WeFeelFine we can use the demographics of the segment to help identify the dominant emotional profile of the DigiVidual™. The Twitter phase isolates tweets that reflect our character and provides direction for the next search phase. This also forms the basis of our quantitative analysis that provides invaluable information about the level of influence of each character. The third phase of the research captures the emotive content, including pictures, videos, music, books and eBay items – these are specially selected to represent the personality of our character. Following these three search phases an experienced researcher sifts through the resulting material and identifies the key themes and strands in the DigiVidual's personality this is then visualised on a lifeboard and a DigiVideo.

The lifeboard acts as a platform to work from, this output can be used to achieve a number of different objectives:

- 1. Segmentation / Target Audience enrichment and Understanding**
- 2. Brand Persona Enrichment and Understanding**
- 3. Trend Enriching / Tracking**
- 4. Insight Generation**
- 5. Insight Tracking**
- 6. New Product Development**

DigiViduals are a powerful way for any brand that wants to get closer to its consumers and really understand what drives them. Far from replacing segmentations or U&A studies, it uses their output as a starting point and provides an enhanced level of empathetic understanding. Its real strength is in creating a more holistic understanding of a segment or customer typology, getting an insight into their life, passions and 'quirks'. As it is a listening/observational methodology that has no need for questions, it is not constrained by a questionnaire; the DigiVidual™ is free to express itself and leave us to sift through thousands of real people's tweets and media content uploads. A chorus of DigiViduals can provide a rich exploration of territories and segments, breathing life into traditional research segmentations. With some imagination it is not difficult to see a soap opera forming around a group of individuals each contributing different outlooks, passions and interests and observable over years potentially.

As social media continues to grow, new opportunities will inevitably arise. The rise of sites like FourSquare (a service that encourages people to "geo-tag" their location with their mobile phone) there is the potential to add a location-based aspect to DigiViduals so we can see where they spend their time.

DigiViduals is a fresh new research approach that is inspired by changes in social media, advances in technology and shifts in research philosophy. It brings something genuinely new and unique into the research market, and provides output that inspires our 'right' brains and informs our 'left'. We expect to see many more research approaches drawing from the well of social media in future, approaches that challenge conventional thinking and research practices. A fascinating time to be in market research.

Acknowledgements

BrainJuicer™ would like to thank the clients mentioned for being two pioneering companies willing to take risks and experiment with untested methodologies in the pursuit of new understanding. Their patience and belief in the process and willingness to get to grips with the vast amounts of Twitter terminology made this project possible. We would also like to thank David Bausola, Nick Renny, Rob Myers and James Tindall of Philter Phactory, who designed and created the DigiVidual™ platform and continue to inject their energy, creativity and intellect in developing it.

Bibliography

Kozinets, *'Click to Connect: Netnography and Tribal Advertising'*, Journal of Advertising Research vol 46, no. 3 September 2006

Kozinets, *'Netnography: Doing Ethnographic Research Online'*, 2009

Needham, *'Web 2.0 and social media create new opportunities for research'*, Admap Magazine, September 2009

Oxley and Light, *'Research 2.0: Engage or give up the ghost?'*, MRS Annual Conference 2010-06-08

Kearon and Earls, *'Me to We Research: Digital Characters – A new way of looking at ourselves'*, ESOMAR Latin America, May 2010-06-08

Buckley, Hansom and Palmer, *'Bloggers as research partners'*, ESOMAR Chicago, October 2009

Schillewaert, De Ruyck and Verhaeghe, *'Forum – 'Connected Research' – How market research can get the most out of semantic web waves'*, International Journal of Market Research, Vol 51, no. 1, 2009

Poynter, *'A Taxonomy of New MR'*, MRS Annual Conference 2010-06-08

Besprosvan and Oyarzun, *'Tweetmiotics – Using Twitter as a consumer centric research tool'*, ESOMAR Chicago, October 2009

Ewing, *'Cultures of Collaboration'*, MRS Annual Conference 2010-06-08

Cooke and Buckley, *'Web 2.0, social networks and the future of market research'*, International Journal of Market Research, Vol. 50, No. 2, 2008

Verhaeghe, Schillewaert and van den Berge, *'Getting answers without asking questions – the evaluation of a TV program based on social media'*, ESOMAR Chicago, October 2009

Asur and Huberman, *'Predicting the future with social media'*, March 2010

Earls, *'Herd: How to change mass behaviour by harnessing our true nature'*, © John Wiley & Sons 2009

Authors

John Kearon, Chief Juicer

BrainJuicer® PLC
1 Cavendish Place
London W1G 0QF, UK
Email: john.kearon@brainjuicer.com
Phone: +44 7967 175621
Fax: +44 870 432 1328

John, recently dubbed "the Steve Jobs of Market Research", is Chief Juicer and Founder of BrainJuicer Group PLC. For his role in conceiving and leading BrainJuicer, John has been recognized by Ernst & Young twice for his entrepreneurship: as 'Emerging Entrepreneur of the Year' in 2005 and the London region's 'Entrepreneur of the Year' in 2009. BrainJuicer has been twice winner of the ESOMAR Award for Best Methodology, in 2005 and 2007, and John was awarded the Advertising Research Foundation's Gold Award for Great Mind/Research Innovator of 2008. John's recipe for success is: creativity, resilience, determination, perseverance, stamina, drive, imagination, resourcefulness, courage, self-belief, commitment, ability to go without sleep and a touch of madness.

Peter Harrison, Innovation Manager

BrainJuicer® PLC
1 Cavendish Place
London W1G 0QF, UK
Email: peter.harrison@brainjuicer.com
Phone: +44 7968 605529
Fax: +44 870 432 1328

With a degree in history and politics, Peter has a passion for creativity and innovation. Most recently, Peter worked at Entheo, an innovation and change agency, where he helped businesses address both brand and product innovation challenges as well as building internal innovation capability through training, research and consultancy. Previously at Research International, Peter worked on accounts ranging from John Deere to Vodafone to PepsiCo, designing and managing large scale international quant projects. Peter now works with BrainJuicer's Labs team as Innovation Manager, where he creates and develops the Juicy products that keep BrainJuicer at the cutting edge.

ⁱ Similar ideas charting the increase in mass collaboration have also been forwarded by Clay Shirkey, Don Tapscott and Charles Leadbetter.