Cultural Relations Theory - an evolution powered by Transformative Technologies

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Reflecting on relationships in a post social media era

The evolution of the collaborative internet and social media now offers ready access to deeply detailed, time series, vox populi communication. Today there is a rapidly growing range of computer programmes capable of identifying and acting upon people's levels of subject appreciation, attitude, mood, location and community commitment and much more.

This information is now largely accessible, detailed and a mass of (Big) data. It is stimulating activity among people and things and caused the authors to reflect on the established theories of public relations.

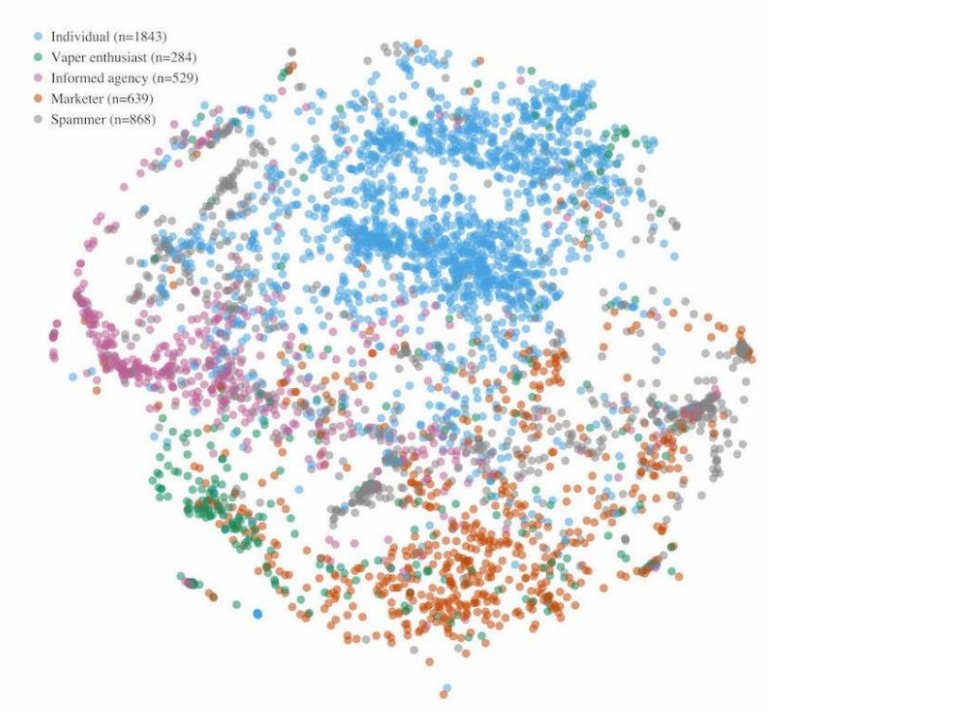
The nature of internet transparency, agency, organisation (cultural) porosity, richness and reach (Phillips and Young 2009) has extended knowledge, understanding and added complexity in relationships (Kane 2017). The nature of Internet Agency as developed by the CIPR/PRCA Internet Commission (Waddington 2015: 295) has new life as Artificial Intelligence interacts with online content to create insights from volumes of data beyond the human mind to compute.

We acknowledge Christian Fuchs' commentary on the extent to which social theory is challenged in 2008 (Fuchs 2008) but we now have an even more comprehensive view of modern society. The evolution of social media (van Dijck 2013) and the collaborative internet has to be taken into account as it has changed over the last decade.

We offer evidence which expands on the work of Matz et al (2017) who published a study which demonstrated how companies only need one Facebook 'like' to effectively target potential customers. The Authors note "Recent research, however, shows that people's psychological characteristics can be accurately predicted from their digital footprints, such as

their Facebook Likes or Tweets."

In their study for "Classification of Twitter Users Who Tweet About E-Cigarettes", Kim Annice et al[1] use the Google AI resource, t-SNE (see below) to identify and visualise a number of characteristics of "Users Who Tweet About E-Cigarettes" and in doing so create a visualisation of this culture which comprise individuals, Vaper enthusiasts, Informed agencies and spammers:



More recently the activities of Cambridge Analytica has drawn attention to one example of the use of data, apps and data mining to offer insights to clients as described by BBC News on 21 March 2018. The extent of data made available by Facebook is offered in public by the company (Facebook 2018). There are many methods for accessing data and an example of such resource in provided by the Social Media Lab (Social Media Research Toolkit).

The nature of the 'digital footprint' is sufficiently detailed that it can identify in time series: platform, applied communication technology, text/sound/ picture/movie/emoji, attitude (Misra and Walker 2013), mood, location (Rashidi et al.2017), levels of commitment and much more. These data offer insights that can be used to describe interrelationship clusters or, put another way, digitally described cultures.
Itai Himelboim et al note that network research has consistently found that given the opportunity to interact freely, individuals and other social actors tend to form subgroups of connected individuals who are more interconnected with one another than with other less

[1] Kim A, Miano T, Chew R, Eggers M, Nonnemaker J
Classification of Twitter Users Who Tweet About E-Cigarettes
JMIR Public Health Surveill 2017;3(3):e63
URL: https://publichealth.jmir.org/2017/3/e63

connected people in their social network. Their work on Twitter is useful in the study of online cultures (Twitter Cultures).

The impact of transformative technologies

Transformative technologies such as the use of Application Programme Interface (API) and Artificial Intelligence (AI) with Big Data held 'in the cloud' offer deep insights into social, institutional and Internet of Things (ioT) interactions and their influence in shaping society.

Most natural and paid-for SEO and social media promotion use API data supplied by vendors. It is not the only source of such data by any means but the detail demonstrates the profundity of information available.

The recent application of 'micro segmentation' (Wikiwand) is an example of the application of technologies to Big Data in, notably, marketing management.

Giga segmentation, a thousand times more detailed than micro marketing segmentation is now emerging. Stastistica.com report that In 2019, it is estimated that there will be around 2.77 billion social media users around the globe, up from 2.46 billion in 2017 each with one or more profiles and social interactions. With high dimensional space computing, markers exposed by social media users can be represented in clusters of related tokens shown as moving three dimensional time series models.

Historic PR and Marketing segmentation methods such as those offered in the Excellence Theory (Grunig 1992:550), Stakeholder Theory (Freeman 2010) are now re-cast in data filled management environments.

Artificial Intelligence is progressively able to access sufficient data to offer advice in its own right. The precept of much planning in PR and marketing is for the practitioner to articulate the outcome to meet an objective. AI can interrogate far more data very fast to propose a course of action with, often, a prediction as the level of probability as to outcome. This is a much more powerful management capability than was available hitherto.

Giga segment targeting does offer segmentation. That a number of people have high dimensional data points some of which identify common interests values or markers is part of creating such segments but the extent to which they have an affinity to such interests at any given time or circumstance defined the extent of the interest values and markers. The Google Tensoflow service built by Daniel Smilkov, Fernanda Viégas, Martin Wattenberg, and the Big Picture team at Google offers such insights (Tensoflow 2018).

Such AI software provides capabilities to picture cultural clusters formed around tokens in big data.

Development of Cultural Relationship Theory

It is now possible to develop past theoretical concepts such as the Excellence theory (the

most recent exposition from J E Grunig was on Facebook 2017)[2] and Stakeholder theory into a new Cultural Relationship Theory.

The Theory posits that transformative technologies enable identification of tokens that cluster to describe coalitions of actors with common values and or markers as cultural entities. It is further suggested that values and or markers are organic in nature and that actors adopt and discard such values within cultures and also escape cultures as a result of changed values and or markers.

Progressively, as internet porosity and transparency evolve alongside advancing digital intelligence, understanding of cultural makers will improve. The extent to which radical transparency and evolution towards a theoretical “transparency singularity” offers a route map for further development.

With the availability of time series analysis, it is theorised that the process of cultural and intercultural entity evolution is exposed offering insights into cultural change drivers.

Equipped with such insights organisations, governments and other institutions are evidenced as cultures in their own right with extended boundaries and as coalitions of cultures too. They interact with a range of other cultures to a greater or lesser extent.

Giga segmenting is not fixed in its depth of analysis or in the range of interactive media or things (as in IoT). It is thereby organic in the fundamental data that it uses.

Application of Cultural Relationship Theory

Such guiding opportunities offer optimisation of routine activities and effective issues and crisis management.

Organisational (but not only organisational) cultural markers or values shared between cultures evidencing harmonious values are an issue, presarging mutual enhanced relationships that need to be managed.

Mapping of organisational cultures offers tools for management to re-enforce the corporate culture and, using it strategically, build deep defence against issues and crisis. This is an area for further articulation beyond the scope of this paper.

The nature of the dichotomy of trust versus transparency is more easily examined in a cultural context and future development of Cultural Relations Theory will offer more practical management practice, reduced regulation and improved relations between organisations and other cultures.

Discordance between organisation cultural mores (markers and/or values) and the values held by primary cultures, such as employees, are an issue requiring management. Evidence suggests that discordance between an organisation’s culture and multiple and diverse

[2] https://www.facebook.com/search/top/?q=dr.%20chiara%20valentini

cultures presarges crisis.

The introduction of capabilities to monitor a wide range of values and markers in time series offers the opportunity to predict change at an even minute level using AI. It becomes progressively more accurate over time with a growing data set and experience. Variance as between prediction and actual outcome is valuable and timely.

Such capability showing the cultural 'fit' of an organisation and the cultural norms it seeks to be associated with is important:

In 2017, Grant Thornton found that, 'unsurprisingly given the increased political and media scrutiny on corporate culture, its research found significant improvements in culture-related reporting'. Grant Thornton report: '39% of companies now provide a strong overview of the culture of their organisation, up from 20% last year. However, the number of CEOs making personal reference to culture in their opening statements remains low, at only 29%. Given the Financial Reporting Council's[3] recent conclusion that the CEO is key for setting and embedding a company's culture, these low levels of engagement remain disappointing[4]'.

Christopher Woolard, Executive Director of Strategy and Competition at the Financial Conduct Authority, noted at the Future of Retail Banking 2017. "Retail banking should be a sustainable market, one where firms focus not just on what happens today, but also in the long term. Culture and ethics will be a key aspect…"[5]

Employment culture is tracked by an employment agency called Glassdoor. Its findings have been published by the Daily Telegraph and reflect on the reputations of leading brands[6].

Such examples begin to identify the significance of culture among organisations which further identify a need to continue development of Cultural Relations Theory.

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[3] https://www.frc.org.uk/
[4] http://bit.ly/2DwOAvU
[5] http://bit.ly/2CpF7r0
[6] http://bit.ly/2Cq3hl7

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Twitter Cultures

Classifying Twitter Topic-Networks Using Social Network Analysis Itai Himelboim, Marc A. Smith, LeeRainie, Ben Shneiderman, CamilaEspina Social Media + Society https://doi.org/10.1177/2056305117691545 First Published February 1, 2017

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Showing how machine learning works, by visualizing high-dimensional data. It's available for anyone to try on the web. It is also open-sourced as part of TensorFlow, so that coders can use these visualization techniques to explore their own data. https://experiments.withgoogle.com/ai/visualizing-high-dimensional-space

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