Siracusa: Italy's smartest city?
Re-branding issues from a critical ecolinguistic perspective.

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Introduction

In 2012, Siracusa, the city on the southeast coast of Sicily, was chosen as part of a group of a hundred worldwide cities for the IBM-sponsored programme Smarter Cities Challenge, the only Italian city to be selected. The programme provides financial aid, and advice from a team of international experts on how to apply the smart agenda. However, the re-branding of Siracusa as a Euro-Mediterranean pole of innovation and environmental sustainability, and as a centre of excellence for smart policies of urban management, must first deal with the controversial (eco)history of the area. The nearby coastal area of Priolo-Augusta-Mellili is home to a vast corridor of petrochemical industries, whose construction dates back to the post-war period. Large-scale environmental damage and health hazards are both well-documented (Mudu et al 2014), and affect not just the three smaller neighbouring towns which host the plants, but Siracusa itself.

Since a key component of the Smart City agenda concerns the protection and development of ecological environments, it would seem necessary for such a project to take on the challenge represented by the town's industrial context. Siracusa's mayor at the time of the town's participation in Smarter Cities Challenge, Roberto Visentin, admits as much, speaking on the comune's website of the need to "balance the needs of its natural resources and refining industry with the demands of historic and cultural tourism"[1], thus reconciling what he calls the area's "two souls". Elsewhere on the comune's website, however, in material relating to the Smart City project, such matters are played down. There are few references to the industrial context in a presentation of the city that highlights, instead, the traditional archaeological and natural features that have made it a magnet for tourists through the ages.

This raises questions of linguistic and multimodal representation that must be of interest to critical ecolinguistics. One question of a general nature relates to the Smart City programme

[1]Città di Siracusa: http://www.comune.siracusa.it/index.php/it/notizie/18-smart-city/12-smart-city-il-progetto, 28/01/2016.

itself, in the version presented by IBM in Smarter Cities Challenge. This paper explores the hypothesis that, while the initiative aims to encourage cities to explore pathways of urban transformation, Siracusa may instead be engaged in re-branding itself as an already existing 'Smart City', with no serious attempt to resolve its fundamental ecological problems. It explores Siracusa's Smart City project from a branding perspective (e.g. Flowerdew 2004, Kavaratzis and Hatch 2013), using an analytical approach derived from the Discourse-Historical method (Wodak 2001) and Critical (Eco)Discourse Analysis (Harré et al 1999, Dryzek 2005, Stibbe 2015).

The Smart Cities Project

The origins of the term 'Smart City' are unclear. It refers to a post-modern conception of urban planning that includes the reliance of a modern city on data collection, storage and interpretation in order to function efficiently. It also connotes emergent technologies and eco-friendly patterns of social organisation, with the inference that it is 'smart' (UK English = 'intelligent') to move towards patterns of energy supply that are sustainable in the broadest sense of the word, i.e. that neither pollute the environment nor contribute to global warming. These environmental considerations are prominent in the EU document of 2011, for example, in which the Commission launched its 'Smart Cities and Communities Industrial Initiative':[2]

> This new European initiative – Smart Cities – has the objective to create the conditions to trigger the mass-market take-up of energy efficiency technologies. The initiative will support ambitious and pioneer cities [...] that would transform their buildings, energy networks and transport systems into those of the future, demonstrating transition concepts and strategies to a low carbon economy. Participating cities and regions will be expected to test and demonstrate the feasibility of going beyond the current EU energy and climate objectives – i.e. towards a 40% reduction of greenhouse gas emissions through sustainable production, distribution and use of energy by 2020.

The EU did not, however, invent the notion of Smart Cities, and this outline makes no reference to the fundamental role of Information Technology in directing the processes of transformation necessary to bring cities into the 21st century and beyond. In 2013, ITU-T, the United Nations' agency for telecommunications, information and communication technologies, set up a focus group in order to "establish a concrete definition for smart sustainable cities which can be used worldwide."[3] They collected definitions from a broad range of sources, including corporate, academic, government and commercial contexts. The final definition that emerged places ICT in a prominent position:

> A smart sustainable city (SSC) is an innovative city *that uses information and communication technologies (ICTs)* and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it

[2] Smart cities and communities: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0519:FIN:EN:PDF, 25/11/ 2015.
[3] ITU-T 2014, p.1.

> meets the needs of present and future generations with respect to economic, social and environmental aspects.[4]

Multinationals interested in the marketing potential of the Smart City concept include Siemens, Cisco, General Electric and firms like the technology giant IBM, with its specific orientation towards the IT sector.

IBM and Smarter Cities Challenge

The involvement of IBM in this scenario began with their 'Smarter Cities Challenge project', launched in 2010. As expected, the aspect of the Smart City concept their project highlights is data collection and deployment, where modern technology in both hard and software plays an important role (Dirks and Keeling 2009). IBM experts visit the cities and, in meetings with local stakeholders and political authorities, make a series of recommendations for implementing a smart agenda suitable for that particular city. The basic steps are:

- Develop your city's long-term strategy and short-term goals.
- Prioritize and invest in a few, select systems that will have the greatest impact.
- Integrate across systems to improve citizen experiences and efficiencies.
- Optimize your services and operations.
- Discover new opportunities for growth and optimization (Dirks et al 2009: 3).

The programme has been the subject of critical attention, for example in the case of Barcelona, where March and Ribera-Fumaz (2014) see it as a means for the infiltration of private capital into areas of urban investment previously covered by the state. Its flagship construction, the 'Mediatic Building' (see Manville et al 2014: 154), is described as a costly international symbol, which only pays lip-service to the notion of citizens' empowerment (March and Ribera-Fumaz 2014: 10).

In the case of Siracusa, the IBM report made positive comments about the human, industrial and agricultural resources of the area, including its 'environmentally conscious management of waterways' (IBM 2012: 2). It makes reference to Siracusa's industrial context, suggesting that, to protect both jobs and the environment, 'industrial transformation' (ibid) would be necessary. We shall see, below, however, that a remarkable transformation would be required if Siracusa's neighbouring petro-chemical giants are to become genuinely involved in the creation of an advanced, eco-friendly, townscape.

Cathedrals in the desert: the industrial pole of Augusta, Priolo and Mellili

The presence of heavy industry in Sicily dates back to the post-war period, when Italian governments, faced with problems of regional underdevelopment and the need for reconstruction, chose to invest in such infrastructure, for a number of political and technical reasons. Among these were the discovery of oil in the nearby Ragusa area, the need to provide employment for young Sicilians to prevent mass migration, and the desire to boost local economies - as well as, perhaps, more controversially, the need to locate industry with potential

[4] ITU-T 2014, p.13.

for environmental damage away from established residential and tourist areas in northern Italy. It was expected that the plants would be centres of local micro economies, generating employment not just in the industries themselves but in ancillary activities in the wider communities. However, experience has shown that such expectations, for whatever reason, were unrealistic; government planners had over-estimated the economic impact of the plants on the areas, while under-estimating the health and environmental risks they represented. Today the plants are known locally as 'cathedrals in the desert', a metaphor that expresses their failure to generate the anticipated social benefits. Health risks to inhabitants of the towns are well-documented; World Health Organization experts found evidence of excess hospitalization for acute respiratory conditions, liver cirrhosis and psychiatric disorders (Mudu et al 2014: 81). As for environmental damage, the plants have polluted the local water-table and lowered it considerably by their constant pumping, and the sea by indiscriminate dumping of products linked to petrol and mercury; smog was formed by the photosynthesis of ozone and non-methanic hydro-carburates (Adorno 2007: 44). The map below, from the WHO report (Mudu et al 2014: 90), shows the extent of the affected areas in the hinterlands, coastline and sea around Siracusa:

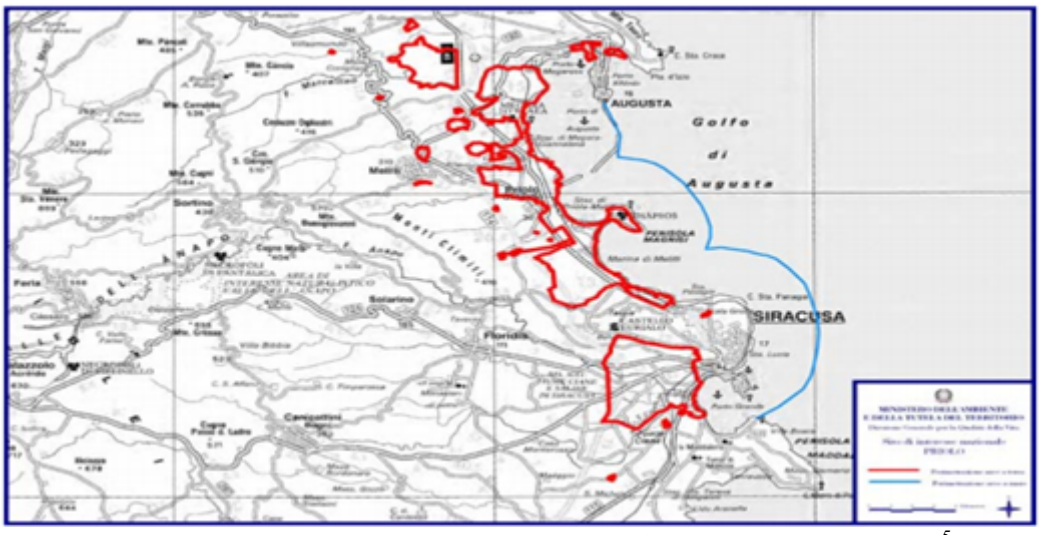


Figure 1: the national remediation site of the Augusta-Priolo area[5]

From the map, it is easy to see that the affected areas include the sea around Siracusa itself, as well as land in its immediate vicinity.

Tourism

Despite this grim environmental picture, Siracusa continues to promote itself as an important Mediterranean tourist destination. It is featured on websites promoting Sicilian tours, which typically emphasise its important cultural, natural, historical and archaeological attractions:

[5] Red indicates the land areas, blue indicates marine areas.

> Siracusa is an ancient town on the sea, which was of immense importance as Greek Syracuse. It has a superb archaeological zone and a lovely historic centre on the island of Ortigia.[6]

It is even possible to find the following text on a website promoting tourism in *Priolo* itself:

> The main economical activity is agriculture, and it prevalently produces citrus fruits, fruit and olives. Recently an interesting industry development has started.[7]

Bizarrely, the petrochemical plant is here represented, through use of a tourist guide frame and the positive evaluative adjective 'interesting' (Asero and Ponton 2015), as one of the area's 'attractions'.

Methodological perspectives

The foregoing detailed socio-historical description of the Siracusa area relates to the discourse-historical method pioneered by Ruth Wodak, which aims to "integrate systematically all available background information in the analysis and interpretation of the many layers of a written or spoken text" (Wodak 2011: 44), and thus pay due heed to the historical, political and sociological context (Weiss and Wodak 2007: 22). In terms of defining the nature of the *topos* (Reisigl 2014: 87) involved in discourse around Siracusa's emerging 'smart' identity, it is necessary to have a detailed picture of the industrial realities of the area and of the surrounding social context. This is the more so since published discourse on the Smart City project in Siracusa tends to elide ideational content that invites negative constructions.

Critical (eco-) discourse analysis consists mainly in the application of the techniques of CDA to ecological themes, though as in any analytical paradigm in its early stages of development, precise approaches have not yet been systematically defined. The following description, by Arran Stibbe, puts the emphasis on the *narrative* component of discourse:

> Ecolinguistics consists of questioning *the stories* that underpin our current unsustainable civilization, exposing those stories that are clearly not working, that are leading to ecological destruction and social injustice, and finding new stories that work better in the conditions of the world that we face (Stibbe 2014:117, my emphasis).

In the discourse studied in this paper, there is more than one questionable story; firstly, that told by the comune's website, which promotes ecological devices such as traffic smog detectors to improve air quality in the city, while somehow pretending that the greater atmospheric pollutant, in its immediate neighbourhood, does not exist. The Smart City narrative projects an image of a city at the cutting edge of urban development, with modern data collection techniques and an enlightened local administration, aiming to improve the quality of life for citizens, to attract investment and tourism to the area. Beneath it all, however, is the tragic narrative of regional decline outlined above, where short-sighted political solutions and the

[6] Italy Heaven. http://www.italyheaven.co.uk/sicily/siracusa.html, 25/01/2016.
[7] Sicilia.Indettaglio.it. http://sicilia.indettaglio.it/eng/comuni/sr/priologargallo/priologargallo.html, 02/12/2015.

driving forces of industrial capitalism combined to produce environmental devastation in one of the most beautiful parts of Sicily.

In an influential paper, M.A.K. Halliday (2001) suggests that fundamental anti-ecological habits of thought are intrinsic in the lexico-grammatical patterns of the English language. In an approach to ecology that is characterised by a Whorfian sentiment, he writes:

> the grammar makes it hard for us to accept the planet earth as a living entity that not only breathes but feels and even thinks: that maintains its own body temperature despite massive changes in the heat that it receives from the sun, and that dies slowly but inevitably as each of the living species that compose it is destroyed (2001: 195).

While Halliday, following Lakoff and Johnson (1980) takes issue with the built-in positive associations of terms such as 'growth', or 'production', the current paper focuses on the greenwashing potential of the terminology used in the Smart City project - terms like 'smart' itself, 'sustainable', 'environmental', 'heritage', and other terms found in the IBM documents and the comune website that project a warm, positive glow.

Analysis of framing (Goffman 1974, Hart 2014) is also relevant, especially in dealing with multimodal content of the website such as the video about the project. Through selection of ideational material, Siracusa is framed as a modern, vibrant, technologically advanced city, rooted in a rich historical context but open to the life-enhancing possibilities of modern technology. This frame excludes alternative stories about the city's real problems, which would tend to open up social and political debate about possible solutions. An aspect of framing that features in all the data analysed is the presence of a well-known discourse pattern, that can be explicit or implicit, *problem-solution* (Flowerdew 2008). Thus, participation in the Smarter Cities Challenge project, for example, is represented - or framed - as the solution to Siracusa's problems.

Framing and *branding* are closely connected. The practice of place-branding is a feature of post-modern societies which, in the current climate of mass tourism, has become a diffuse, self-conscious practice for many of the world's cities (Kolb 2006). It is an aspect of competition between places for 'limited financial, human or cultural resources' (Ashworth et al 2014: 4). As Flowerdew explains, in his analysis of Hong Kong's branding as a 'world city', the process involves identifying the 'core values' of the 'product' (Flowerdew 2004: 584; see also Fairclough 2006: 88), which in the case of Siracusa, as we have seen, relate to its archaeological, historical and natural heritage, as well as its participation in the Smart Cities project. As Govers (2014: 80) aptly points out, most modern cities are characterised by high technology, so it is unlikely that this particular feature of the brand will distinguish Siracusa much from its competitors. However, it does project an identity that looks simultaneously to past and future, attempting to apply technological solutions to 'traditional' problems.

Ashworth says that branding processes are commonly coordinated by local stakeholders such as tourist offices, who also play an important part in the 'stories' that are told about a place, which contribute to the ongoing formation of its brand (Ashworth et al 2014: 4). However, brand formation is also conducted by local financial, political and cultural elites, authorities, major businesses, as well as - crucially for the current paper - *consultants* (Ashworth et al 2014: 5, my emphasis). To sum up, then, the stories that help form the brand, and which will be examined further below, are those told by the Siracusa authorities on their website and through the video describing the project, and also those told by IBM.

Data

There are three parts to the data, as follows: firstly, the section of the Comune of Siracusa's website that deals with the Smarter Cities Challenge project,[8] secondly IBM's Summary Report,[9] and thirdly the video that presents the project.[10]

(i) Comune of Siracusa website

1	**Siracusa è stata selezionata da Ibm insieme ad altre 32 città in tutto il mondo per**
2	**partecipare al programma globale Ibm Smarter Cities Challenge.**
3	Il progetto prevede un concorso mondiale attraverso il quale, fino al 2013, Big Blue assegna
4	tecnologia e servizi del valore totale di 50 milioni di dollari a 100 comuni in varie parti del
5	mondo. Team di esperti, appositamente selezionati, forniranno ai responsabili delle città analisi
6	e raccomandazioni per sostenere una crescita di successo, un maggiore coinvolgimento dei
7	cittadini e una migliore efficienza dei servizi. La selezione viene effettuata da Ibm sulla base
8	dei progetti che vengono ritenuti più stimolanti e convincenti per partecipare al programma. Il
9	valore approssimativo per ciascun progetto selezionato nell'ambito del programma Smarter
10	Cities Challenge equivale a 400 mila dollari. Durante il periodo in cui i team di Smarter City
11	Challenge opereranno nelle città prescelte, gli esperti tecnici, i ricercatori e i consulenti del
12	colosso IT si immergeranno nelle problematiche locali e offriranno una serie di opzioni e
13	raccomandazioni da seguire fase per fase. Tra le questioni esaminate figurano assistenza
14	sanitaria, istruzione, sicurezza, servizi sociali, trasporti, sostenibilità, gestione del bilancio ed
15	energia. Il progetto proposto dalla città di Siracusa mira ad armonizzare tre aspetti specifici e
16	caratteristici del territorio: l'inestimabile valore dei siti storico/archeologico ed ambientali, la
17	presenza di uno tra i più significativi, ed economicamente rilevanti, siti petrolchimici d'Europa
	e la sua posizione strategica nel bacino del Mediterraneo.[11]

Table1: from the Comune of Siracusa website

[8]Città di Siracusa. http://www.comune.siracusa.it/index.php/it/notizie/18-smart-city/12-smart-city-il-progetto, 26/01/2016.

[9] IBM Smarter Cities Challenge: https://smartercitieschallenge.org/assets/cities/siracusa-italy/documents/siracusa-italy-summary-2012.pdf2, 22/03/2016.

[10] In the interests of authenticity, I have preferred to print the original Italian, providing a translation in the footnotes.

[11] Siracusa was selected by IBM, along with 32 other cities around the world, to participate in the global IBM Smarter Cities Challenge. The project includes a global contest through which, until 2013, Big Blue will assign technology and services worth a total of $50 million to 100 municipalities in various parts of the world. Teams of experts, specially selected, will provide to the managers of the cities analyses and recommendations to support successful growth, greater involvement of citizens and improve the efficiency of services. The selection is made by IBM, based on the projects that are deemed the most exciting and compelling that participate in the program. The approximate value for each project selected under the program Smarter Cities Challenge is equivalent to 400 thousand dollars. During the period in which teams of Smarter City Challenge will operate in select cities, technical experts, researchers and consultants of the IT giant will plunge into local issues and offer a series of options and recommendations to be implemented step by step. The subjects discussed include healthcare, education, security, social services, transport, sustainability, budget management and energy. The project proposed by the city of Siracusa will harmonize three specific characteristics of the area: the priceless historical / archaeological and environmental sites, the presence of one of the most significant and economically important petrochemical sites in Europe, and its strategic location in the Mediterranean.

Martin and White (2005) describe a taxonomy for evaluative language that enables the analyst to appreciate the role it plays within a text. They include explicit evaluative lexis (adjectives such as *wonderful, pleasant, courageous*, etc.) and also implicit evaluations, where the writer appears to be simply inviting the reader to adopt his own evaluative position. In this text, which appears on clicking the 'Smart City programme' button on the website of the Siracusa comune, use of framing highlights Siracusa's status as a global city. It is one of only 32 selected for IBM's global program (1-2); therefore, readers are invited to infer, it must possess qualities that justify its selection. There are also many explicit 'positive' ideational features to be found in this text, such as: 'technology and services to a total value of 50 million dollars' (3-4, + *Judgement: capacity*),

i) 'teams of specially chosen experts' (4-5, + *J: capacity*),
ii) 'successful patterns of growth' *(6*, + *J: capacity*),
iii) 'greater involvement of citizens' *(6, + J: propriety*),
iv) 'better efficiency of services' (6-7, + *J: capacity*),
v) 'technical experts, researchers and consultants of the IT colossus' (11, + *J: capacity*),

The term 'Judgement' (J) is used to characterise evaluations of human behaviour. In i), the 'capacity' of the social actors is emphasised by the high monetary value associated with them. In iv), there is a reference to something that is likely to be positively valued in a moral sense by readers, and the more weighty term 'propriety' is used for such instances. Where evaluation, instead, deals with human artefacts, the term 'appreciation' is used. Like judgements, these can be positive and negative, explicit or implicit. The interested reader is referred to Martin and White's work for a fuller description of the taxonomy.

The semantic prosody (Louw 1993) of this text is, therefore, of a positive character, an effect which is further strengthened by other positive terms such as 'stimulating and convincing' (8, + *appreciation: quality*), the metaphor for IBM 'IT colossus' (11, + *J capacity, intensified*), and the positive buzzword 'sustainability' (13). Thus, the text's immediate message is in the area of 'something good is happening for Siracusa'. If we think of the text in terms of an implicit 'problem-solution' structure, a reading which the formulation of lines 9-12 encourages, the picture is as follows:

Problem	**Solution**
The local problems (11)	A series of options and recommendations to be followed phase by phase (12), offered by the 'technical experts, researchers and consultants of the IT colossus' (10-11)

Whatever the 'local problems' (11) might be, therefore, Siracusa's success in entering the Smart City programme guarantees impressive tools for dealing with them, wielded by a global IT 'colossus'. This latter term is an instance of graduation realised through 'intensified lexis' (Martin and White 2005: 37), that emphasises the capacity of IBM to deal with the problems.

The next section of the text elaborates on these local problems:

1	"Siracusa – spiega il Sindaco **Roberto Visentin** – ha assunto nell'ultimo decennio una
2	vocazione all'innovazione urbana che si delinea in un insieme di iniziative di crescita, sviluppo
3	e legalità, già in cantiere e in coesione con diversi soggetti sociali ed imprenditoriali in ambito
4	locale. C'è una certa difficoltà a conciliare tecnicamente le diverse anime del territorio: da una
5	parte l'industria petrolchimica può rallentare l'auspicato incremento di un turismo di qualità,
6	dall'altra i doverosi meccanismi di protezione e salvaguardia, dei nostri preziosissimi beni
7	culturali ed ambientali, costituiscono un fattore di complessità e maggiore onerosità per lo
8	sviluppo industriale. Per questo motivo abbiamo partecipato a Smarter Cities Challenge di Ibm
9	per affrontare l'esigenza di avere, con l'ausilio di competenze specifiche e delle moderne
10	tecnologie, un piano di governance sistemica dei diversi comparti, progettando un modello
11	organizzativo-logistico per la città con importanti margini di sviluppo per il futuro".[12]

Table 2: from the Comune of Siracusa website

The problem-solution structure here is signalled by the term 'difficulty' (4), relating to the problems involved with reconciling the different souls of the area. They are further characterised as 'technical' by the mayor. The term 'technical difficulties' usually refers to problems with the equipment required to do a specific job, as in this example taken from the Internet:

> Due to technical difficulties, we were unable to complete your request online or through our customer help desk at this time. We are working to rectify the problem, please try again later.[13]

They may be due, in other words, to unforeseeable contingencies or relatively minor circumstances, possibly of a temporary nature. The mayor's verbal choice here downplays the nature of the problems, as to call something a 'technical difficulty' is quite different, rhetorically, from naming it with a stronger term (*major obstacle*, for example).

In lines 4-6, he identifies the social actors, earlier covered by the general term 'souls of the territory', as follows:

- The petro-chemical industry (4)
- Operators involved in 'quality tourism' (5)
- Agents involved in the 'dutiful mechanisms of protection and safeguard of our most precious cultural and environmental heritage' (5-6)

[12] "Syracuse - says Mayor Roberto Visentin - has taken on, over the last decade, a vocation for urban innovation that is emerging in a number of growth initiatives, developments and laws, that are already in the pipeline, in collaboration with different subjects in the local social and business context. There is a certain difficulty in technically reconciling the different souls of the territory: on one side the petrochemical industry can slow down the desired increase in quality tourism, on the other the duty we have to employ protection mechanisms, to safeguard our precious cultural and environmental heritage, are factors of complexity and higher costs for industrial development. This is why we participated in IBM's Smarter Cities Challenge, to address the need to have, with the help of expertise and modern technology, a governance plan for systemically different sectors, designing an organizational and logistical model for the city with important margins of development for the future."

[13] Inside Flyer: https://insideflyer.com/forums/threads/due-to-technical-difficulties-we-were-unable-to-complete-your-booking.54202/, 22/01/2016.

The petro-chemical industry, as we have seen, represents a severe threat to the cultural and environmental heritage of the area, and therefore also jeopardises the area's potential for attracting quality tourism.

Once more, the problem/solution structure can be evoked:

Problem	**Solution**
a certain difficulty in technically reconciling the different souls of the territory (4)	IBM's Smarter Cities Challenge […] a governance plan for systemically different sectors, […] an organizational and logistical model for the city (8-11)

This text, then, while accepting that Siracusa does have problems, operates a rhetorical strategy of on the one hand, *minimisation*, while on the other, it positions the IBM Smart City programme as the solution to these. The mayor's formulation 'this is why' (7) makes the problem-solution connection explicit.

(ii) IBM Summary Report

In 2012 IBM produced a two-page document on the case of Siracusa, summarising the results of its work in the town. Under the headline 'the challenge' - a title which, once more, indicates the presence of an implicit *problem-solution* structure - the IBM report says:

1	Siracusa's challenges track the many changes in south-eastern Sicily and Italy. While retaining
2	its charms, natural resources and prime geographic position, it also faces a reduction in industrial
3	jobs, the slow growth of tourism, the lack of progress in infrastructural construction, mobility
4	and accessibility, and the disassociation of many parts of Siracusa from the main life of the
5	Ortigia district. While talented professionals in City government have created a palpable
6	planning culture, the jump from "plan to implement" is fraught with complications and barriers.

Table 3: from the IBM Summary Report on Siracusa[14]

Reading such statements against the backdrop of the rich historical picture set out above, it is possible to justify a critical position that resists a 'natural reading' of this text. For example, it is questionable how far Siracusa's challenges reproduce more general social changes in south-eastern Sicily or indeed, in Italy, as the first line claims. Siracusa's problems derive from specific circumstances that are not to be found elsewhere in the island to the same degree, far less in Italy. They are not the kind of problems linked to processes of de-industrialisation (2), which are found elsewhere along the Italian peninsula. Reading this text, it would be possible to conclude that the reasons for the 'slow growth of tourism' (3) are connected to some of the factors listed, i.e. the lack of investment in infrastructure, or problems of mobility and accessibility (4). Once more, a downplaying of the problems is evidenced in the lexical choices used to characterise the problems, which are referred to merely as 'complications and barriers' (6) without intensifying adjectives.

The recommendations conclude with six 'pillars', the last two of which are relevant for this study. The penultimate is as follows (table four):

[14] IBM Summary Report: https://smartercitieschallenge.org/assets/cities/siracusa-italy/documents/siracusa-italy-summary-2012.pdf2, 22/03//2016.

1 2 3 4 5 6	**Improve quality of life – "Live Siracusa"** With the goal of improving the quality of life of citizens throughout Siracusa's districts, this proposes programs to build new, attractive places outside main tourist destinations, introducing natural shopping centres, linking green spaces with bike and walking paths, and building Wi-Fi infrastructure for citizens and tourists. The team also recommends using tools that make the natural shopping centre competitive with large chain shopping malls. Improvements in mobility and transportation are also important for quality of life.

Table 4: from IBM Summary Report

Mapping a problem-solution structure onto this data produces the following:

Problem (s)	**Solution (s)**
- a reduction in industrial jobs (2), - the slow growth of tourism (3), - the lack of progress in infrastructural construction, mobility and accessibility (3), - the disassociation of many parts of Siracusa from the main life of the Ortigia district (4)	- programs to build new, attractive places outside main tourist destinations (2-3), - introducing natural shopping centres (3), - linking green spaces with bike and walking paths (3-4), - building Wi-Fi infrastructure for citizens and tourists (4) - Improvements in mobility and transportation (5-6)

(Smarter Cities Challenge)

In the IBM summary report, one of the recommendations reads:

> Siracusa brand – all actions and projects must take the building and preservation of the brand into account. (IBM 2012: 2).

These solutions are characteristic of the eco/techno branding focus of the IBM programme, featuring green ideas like cycle paths and 'natural' shopping centres, as well as improvements in Wi-Fi infrastructure. The inference is that these measures will help resolve some of the problems indicated. For example, new jobs will be created for workers to construct and run these projects, hence absorbing the work-force laid off from local industries. Tourism will be encouraged by improved Internet infrastructure, mobility, and tourists will also be encouraged to explore attractive areas outside the main destinations, possibly getting to them along the cycle paths that are planned. What is not said, however, is also important: there is no reference to measures to resolve the problems created by the nearby petrochemical industry.

The final 'pillar' deals, in four brief lines, with the question of 'industrial transformation':

1 2 3 4	**Industrial transformation – "Build together"** This concentrates on various actions that would allow industry to transform and become more involved in building a smarter Siracusa, including changing industry perspectives, involving industry in tourism and initiating programs to shift skills into new, attractive industries of the future.

The most serious problem facing Siracusa is addressed by initiatives summed up in the vague term 'various actions' (1), which will 'allow' industry to transform (1-2). The semantics

of the verb 'allowing' are worth noting. The inference is that industry is willing to transform, and is only awaiting the removal of some restraining legislation to begin, a presupposition (Fairclough 1989) that would need considerable justification. Again, the proposition that industry is to be 'involved in tourism' (3) involves several questionable presuppositions, viz. that industry is willing to engage in tourism, that it is able to do so, or that it is willing and able to change its perspectives (2-3), and so on. The transformation that is proposed, from (implicit) *old/ugly/polluting/anti-ecological*, *etc*. into (explicit) *new/attractive/futuristic* (3-4) gives no details of how this is to be achieved. What readers are offered, instead, is a vision of the future city that is quite consistent with the 'Siracusa brand', a smart city (2), with an augmented tourist sector (3) and a range of new, attractive industries (4).

(iii) The video

A website *Siracusa Smart City*, features on its homepage a promotional video that explains the project.[15] Two points can be made about the film as a whole: firstly, it has the high production values of a television advert. A filtered, glossy vision of the town is presented, using a range of camera angles, close-ups, fades in and out, rapid changes of scene, and so on. The viewer is presented with a sanitised townscape, with stunning sea views, ecological features such as green cycleways, and 'smart' technological devices fixed onto traffic lights. Such presentation techniques, naturally, are in keeping with IBM's notion of 'Brand Siracusa'. As Warnaby (2014) points out, in his study of techniques used in branding the city of Liverpool, urban images are deliberately selected to enhance the image of the city.

Secondly, there is no reference made to the industrial giant further round the coast. As in the IBM executive summary, it would be possible for the viewer to interpret the problems that Siracusa must overcome as relating to those inherent in the strictly urban context - i.e., the air pollution produced by traffic flows, poor transport networks, crumbling infrastructure, and suchlike.

Below are some scenes from the video (table five), which, together with the soundtrack (a bright but soothing piece featuring acoustic guitar) and the voiceover, tell a series of brief stories about the project:

	Scene	Description
1		A traffic light with a hi-tech device attached
2		A row of electric bikes on an eco-friendly cycle path

[15] Siracusa Smart City: http://www.siracusa-smartcity.it/le-aree/, 25/01/2016.

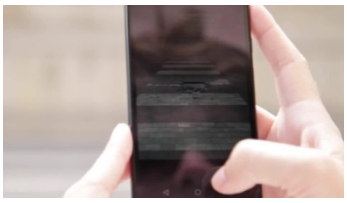
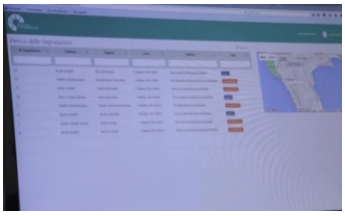
3		A couple wait by a new bus stop in Ortigia; the man has just checked his Smartphone for bus times and route details
4		A shot of damage to the street cobblestones
5		A girl takes a snap of the damage with her Smartphone, and sends it directly to the Comune of Siracusa..
6		..where it appears on a page of a clerk's computer headed 'Segnalazioni' (Reports)

Table 5: Some scenes from the video

The scenes follow one another in quick succession, typically lasting no more than a second or two. The first is from a sequence shot in the town, and shows a hi-tech device fitted to a traffic-light, possibly for monitoring traffic flows, possibly air pollution. It is quickly followed by the shot of the cycle path, with a row of electric bikes, a palm tree, the seaside. The juxtaposition of urban smog/confusion/traffic with this idyllic natural environment symbolises the problem-solution pattern, insinuating through these visual prompts that the problems of urban traffic can be dealt with by 'natural' means. Scene 3 is from another mini-narrative involving a couple of tourist visitors to Ortigia. The man consults his Smartphone for details of the bus journey, and the couple happily board a bus that arrives. There is a brand new bus stop with route details (to the right of the picture); the inference is that up-to-date technology, combined with effective real-world structures, will create harmonious, stress-free travel experiences for tourists, making the new 'smart' city more attractive for them. Scenes 4-6 form part of another mini-narrative, in which a female citizen, crossing a street, notices that the cobblestones are damaged. She takes a photo with her Smartphone, which arrives in real time on the computer of a worker at the comune. Once more, the inference is that digital technology, together with active citizen participation, combine to resolve problems that would have been left unattended to in more traditional contexts.

The voiceover, meanwhile, underlines once more the fact that the Smart City project represents a solution to Siracusa's problems, in texts such as the following:

> Siracusa Smart City is a cultural challenge, a stimulus for a new awareness for users of the town. It also means to respond to the needs of the community, with simple to use solutions, initiatives and tools, like the pieces of a puzzle.

To sum up, the video is consistent with the elements that make up the Siracusa Brand. It incorporates some of Siracusa's strongest selling points, its outstanding natural, archaeological and historical features, with the application of smart technology to questions of traffic flow, air pollution, parking solutions and repair to damaged infrastructure.

Conclusion

The Smarter Cities Challenge project represents an advertising strategy on the part of IBM, whose strategic long-term goal can be seen as identifying the IT multinational with progressive, ecological values, with sustainability and smart technology. The company, in this view, is participating in the familiar corporate branding practice of 'greenwashing' (Ramus and Montiel 2005). As much as the cities involved stand to gain from this branding operation, so does the company itself, and indeed, the programme itself has been described by some critics as a 'marketing campaign' for IBM (Shelton et al 2014: 16)

> IBM states that Smart City status is not conferred simply by selection for its programme, that it is rather to be seen as a 'journey' to be undertaken: Becoming a 'smarter city' is a journey, though, not an overnight transformation (Dirks and Keeling 2009: 2).

Yet it would seem, from this study, that the Siracusa authorities have so far chosen a different path, one more in keeping with the spirit of another of IBM's recommendations, to maintain what they have called the 'Siracusa Brand'. They have chosen to present the city, in other words, through media products such as the video analysed above, as a *de facto* 'Smart City', to use its participation in the project as a marketing tool, rather than as a real opportunity to resolve the significant structural problems that face the city.

I have placed an emphasis, in the foregoing, on the presence of an implicit or explicit Problem - Solution structure in the Smart City discourse selected. It appears that the processes of re-branding of Siracusa, described in this paper, conceal a fundamental equivocation; or, at the very least, that solutions are being offered to the wrong problems. We saw, above, that Priolo itself is being marketed as a tourist destination; the website quoted features a shot of the town with the 'interesting' petrochemical plant clearly visible in the background. However, it would seem absurd for Siracusa to do the same; to tinker with projects that reduce air pollution from traffic fumes, for example, while doing nothing whatever about more serious levels of toxicity in the air that drifts across from Priolo.

The problems presented in the first part of this paper, though not unique to Siracusa, are not the typical problems faced in global cities today - that is to say, overcrowding, pollution, unemployment, mobility, inadequate infrastructure, high crime rates, and so on. Any serious proposals to constitute a developmental pathway towards some kind of 'smart' future status, in the case of Siracusa, must surely start with the problem indicated by its mayor, Roberto Visentin, i.e., how the city's 'twin souls' are to be reconciled. Is it possible that the petrochemical giant, whose continued activity damages both the town's natural heritage and

the health of its citizens, could be involved in a serious process of de-industrialisation, and that it would be a willing participant in such a project? What steps might be necessary for this situation to arise? These are questions that IBM and the Siracusa authorities perhaps ought to have addressed; the Siracusa Smart City project has so far failed to do so.

References

Adorno, Salvatore 2007. L'inquinamento dell'aria e dell'acqua nel polo petrolchimico di Augusta - Siracusa nella seconda metà degli anni Settanta. I frutti di Demetra Vol 15. Viella Libreria: Rome, pp. 43-57.

Asero, Vincenzo and Ponton, Douglas, Mark 2015. The Montalbano effect: re-branding Sicily as a tourist destination. On the Horizon 2015, Vol 23: 4. Emerald , pp 342 - 351.

Ashworth, Gregory J., Kavaratzis, Mihalis and Warnaby, Gary 2014. The need to rethink place branding. In Kavaratzis, Mihalis, Warnaby, Gary and Ashworth, Gregory J. (eds) *Rethinking place branding: comprehensive brand development for cities and regions*. Heidelberg and New York: Springer, pp. 1-13.

Chouliaraki, Lilie and Fairclough, Norman 1999. *Discourse in late modernity: rethinking critical discourse analysis*. Edinburgh: Edinburgh University Press.

Dirks, Susanne and Keeling, Mary 2009. *A vision of smarter cities. How cities can lead the way into a prosperous and sustainable future*. New York: IBM Global Business Services.

Dirks, Susanne, Keeling, Mary and Dencik, Jacob 2009. *How smart is your city? Helping cities measure progress*. New York: IBM Global Business Services.

Dryzek, John S. 2005. *The politics of the earth: environmental discourses*. Oxford University Press: Oxford.

Fairclough, Norman 1989. *Language and Power*. Harlow: Longman.

Fairclough Norman 2006. *Language and globalization*. London and New York: Routledge.

Flowerdew, John, 2004. The discursive construction of a world-class city. Discourse and Society 2004. London, Thousand Oaks, New Delhi: Sage , pp. 579-605.

Flowerdew, Lynn 2008. *Corpus-based analysis of the problem-solution pattern: a phraseological approach*. Amsterdam: John Benjamins.

Goffman, Erving 1974. *Frame analysis: an essay on the organization of experience*. New York: Harper and Row.

Govers, Robert 2014. Rethinking virtual and online place branding. In Kavaratzis, Mihalis, Warnaby, Gary and Ashworth, Gregory J. (eds) *Rethinking place branding: comprehensive brand development for cities and regions*. Heidelberg and New York: Springer, pp. 73-85.

Halliday, M.A.K. 2001. New ways of meaning: the challenge to applied linguistics. In Fill, Alwin and Mühlhäusler, Peter (eds) *The ecolinguistics reader: language, ecology and environment*. London and New York: Continuum, pp. 175-203.

Harré, Rom, Brockmeier, Jens, Mühlhäuser, Peter 1999. *Greenspeak: a study of environmental discourse*. London and New Delhi: Sage.

Hart, Christopher 2014. Construal operations in online press reports of political protests. In Hart, Christopher and Cap, Piotr In Hart, Christopher and Cap, Piotr (eds) *Contemporary critical discourse studies*. London, New Delhi, New York, Sydney: Bloomsbury Academic, pp. 167-189.

IBM 2012. *IBM's Smarter Cities Challenge. Siracusa, Summary report*. New York: IBM Corporate Citizenship.

Kavaratzis, Mihalis and Hatch, Mary J. 2013. The dynamics of place brands: an identity-based approach to place branding theory, Marketing Theory, Vol. 13 No. 1, pp. 69-86.

Kolb, Bonita M. 2006. *Tourism marketing for cities and towns*. Burlington and Oxford: Elsevier.

Lakoff, George, and Mark Johnson. 1980. *Metaphors we live by*. Chicago: University of Chicago.

Louw, Bill 1993. Irony in the text or insincerity in the writer? – the diagnostic potential of semantic prosodies. In Baker, Mona, Francis, Gill and Tognini-Bonelli, Elena (eds) *Text and technology: in honour of John Sinclair*. Amsterdam and Philadelphia: John Benjamins, pp. 157 – 76.

Manville, Catriona, Cochrane, Gavin, Cave, Jonathan, Millard, Jeremy, Pederson, Jimmy Kevin, Thaarup, Rasmus Kare, Liebe, Andrea, Wissner, Matthias, Massink, Roel, Kotterink, Bas 2014. *Mapping Smart Cities in the EU*. European Union.

March, Hug and Ribera-Fumaz, Ramon 2014. Smart contradictions: the making of Barcelona a self-sufficient city. European Urban and Regional Studies. Sage online, pp. 1-15.

Martin, James, and White, Peter R.R. 2005. *The language of evaluation: appraisal in English*. Basingstoke and New York: Palgrave Macmillan.

Mudu, Pierpaolo, Terracini Benedetto, Martuzzi Marco (eds) 2014. *Human health in areas with industrial contamination*. Copenhagen: WHO Regional Office for Europe.

Ramus, Catherine, A. and Montiel, Ivan 2005. When are corporate environmental policies a form of greenwashing? Business and Society, vol. 44 (4). Sage Journals, pp. 377-414.

Reisigl, Martin 2014. Argumentation analysis and the discourse-historical approach: a methodological framework. In Hart, Christopher and Cap, Piotr (eds) *Contemporary critical discourse studies*. London, New Delhi, New York, Sydney: Bloomsbury Academic, pp. 67-96.

Shelton, Taylor, Zook, Matthew and Wiig, Alan 2014. The 'actually existing smart city'. Cambridge Journal of Regions, Economy and Society 2015, 8, pp. 13–25.

Smarter Cities Challenge. Online at: http://smartercitieschallenge.org/city_Siracusa_Italy.html, last visit 22/08/2014.

Stibbe, Arran. 2014. An ecolinguistic approach to critical discourse studies. Critical Discourse Studies, 11 (1), pp. 117-128.

Stibbe, Arran 2015. *Ecolinguistics. Language, ecology and the stories we live by*. London and New York: Routledge.

Think Sicily. Online at: http://www.thethinkingtraveller.com/thinksicily/guide-to-sicily/towns-and-cities-in-sicily/syracuse.aspx, last visit 22/08/2014.

Warnaby, Gary 2014. Rethinking the visual communication of the place brand: a contemporary role for chorography? In Kavaratzis, Mihalis, Warnaby, Gary and Ashworth, Gregory J. (eds) *Rethinking place branding: comprehensive brand development for cities and regions*. Heidelberg and New York: Springer, pp. 175-191.

Weiss, Gilbert and Wodak, Ruth 2007. Introduction: Theory, interdisciplinarity and critical discourse analysis. In Weiss, Gilbert and Wodak, Ruth (eds). *Critical discourse analysis: theory and interdisciplinarity*. London, Basingstoke and New York: Palgrave Macmillan, pp. 1-35.

Wodak, Ruth 2001. 'The discourse-historical approach', in Wodak, Ruth and Meyer, M. (eds), *Methods of critical discourse analysis*. London: Sage, pp. 63–95.

Wodak, Ruth 2011. Critical discourse analysis. In Hyland, Ken and Paltridge, Eric (eds). *The Continuum companion to discourse analysis*. London and New York, Continuum, pp. 38-54.