Emotional Text Analysis (ETA) as contribution to the construction of an audience development questionnaire: a cultural festival case study

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Abstract

This paper presents a research-action case where, through text analysis, a questionnaire supporting organizational strategies of audience development for cultural and creative services has been created. The process was realised in two phases: the first, lasting three years (2012-2014), allowed us to explore the context of an Italian literary festival through the text analysis of a broad number of interviews (395) gathered during the events of this festival; in the second phase, a questionnaire constructed using the data produced in the preceding phase was administered (to 330 people) in the fourth edition of same festival (2015). The transition from textual analysis to the construction of a part of the items of the questionnaire will be discussed in this paper.

Key-words: exploratory text analysis, questionnaire, Emotional Text Analysis (ETA), co-occurrences analysis, sentiment, mot plein, dense word, Local Culture, Indicators of Organizational Development (IOD), cultural events, audience development, impact, stakeholders.

1. Introduction

The aim of this article is to discuss how we have used exploratory analysis of textual data for creating a questionnaire. The passage from the text analysis to the questionnaire aimed at moving from a clueing understanding necessary in a new context, toward greater standardization that permits to classify and measure the people use and satisfaction of cultural events. This process was realized in two phases: the first, spanning three years (2012-2014) of an Italian literary festival, called Festival delle Storie (http://www.festivaldellestorie.org), allowed us to explore the context of the festival, with an open interview driven by a single open question. An ETA (Emotional Text Analysis) was applied on the interview corpus to understand the public’s motivations for and satisfaction in participating. The obtained results, tested and utilized with the organizers year by year in the programming of successive events, led to the choice to prepare a questionnaire. In the second phase, in the fourth year of this festival (2015), we constructed the questionnaire.

Some results of the first phase and their use in the construction of some questions of the mentioned questionnaire will be discussed in this paper.

1.1. Constructing closed-ended survey items based on an exploratory text analysis

The relation between text analysis and questionnaires often sees the use of the former as a way to treat the text resulting from the open-ended questions of the latter. There is a tradition in the using of text analysis in the treatment of questionnaires, most often comprised of open-ended questions that stimulate a textual production in the subject. In the work that we are presenting, rather, text analysis represented the exploring phase that preceded and formed the
basis for the construction of the closed question questionnaire, combining methods with
various degrees of structuring.

The open interview of the first phase, realized by staff trained to perform it, was structured as
an interview that played out over 15 minutes from a single starting stimulus: “What motivated
you to participate to the Festival of Stories and what will you take away from this
experience?”. The question was chosen so as not to suggest an answer to anyone who might
not have any to say on the specific themes and therefore forcing them into the knowledge and
cognitive schemes of the researcher (Manganelli Rattazzi, 2000). The above phase represents
the first of the 4 typical phases in the planning of a questionnaire as described by Sheatsley
(1983): choice and content area that must be investigated. The other three are: formulation of
relative items; organizing the items in the appropriate order; analysis through pre-test of the
obtained product.

Text analysis therefore was an opportunity to maintain the advantage of capturing the richness
in the expressiveness in the text, as said by Della Ratta-Rinaldi “The interest of this approach
is to have the possibility to identify and construct the modality of post coding in a more
systematic and less dependant of the researcher's sensibility, taking advantage of the
descriptive potential of the techniques of text-analysis” (2010, p. 918). Further, the text
analysis made in the first three years played role of a pilot investigation, useful in tuning the
instrument to the research target population and to taking into consideration of the type of
people that the questionnaire would be answered (Manganelli Rattazzi, 2000) by, in fact, both
of the instruments were geared towards the same public. Thanks to this, all that was needed
was a simple initial pre-test once the questionnaire was constructed.

In the end, the selection of the key-words used to construct the items of the questionnaire,
derived from the open-ended questions, also included dense words with a relatively low
statistical significance level though this did not make them not relevant. In this regard, in her
paper that confronts results from text analysis and a questionnaire administered to a group of
female workers, Della Ratta-Rinaldi points out that “there are items that in the open questions
seemed more marginal but that instead were indicated by the larger number of subjects when
making a choice between a limited amount of possibilities” (2010, p. 926). In same paper the
Author explains those findings with Schwarz and Hippler “From a cognitive perspective,
open-response formats present a free-recall task to respondents, whereas closed formats
present a recognition task. As has been found in other domains of research, recognition tasks
have been found to result in higher degrees of recall” (1987, pp. 43-44). The use of
emotionally dense words (Battisti and Dolcetti, 2012) in the formulation of items, preserving
the type of language used by the subjects, sought to underline a more evocative rather than
cognitive effect in the answer.

1.2. The demand for the audience development research

Attention to the needs of the cultural organizations, on that which is the service and its impact
from the point of view of attendee, is increased: both for the effect of a client attention general
strategy where the consumer is seen as co-creator of the service which today has greater
presence in the organisations compared to the past; and for a recent European economic
politic that is involving this sector as a means of contributing to the crisis recover: no longer
perceived merely as economic but also as cultural; so the cultural and creative sector is now
considered a central force for social cohesion and economic development (European
Commission, 2010).

In fact, a European Program, Creative Europe 2014-2020 was created to strengthen this sector
and Androulla Vassiliou, European Commissioner for Education, Culture, Multilingualism
and Youth, stated: “The cultural and creative sectors have great potential to boost jobs and
growth in Europe. EU funding helps thousands of artists and cultural professionals to work across borders and reach new audiences” (European Union, 2013). This policy has its roots within the State of Rights on which Europe is based, in fact, the *Universal Declaration of Human Rights* sets out some fundamental rights regarding cultures: “Everyone has the right to participate freely in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits” (United Nations General Assembly, 1948, Article 27-1). Within this framework the term *audience development* has come into use in European politics to reinforce its commitment to management centered on the cultural organization audience impact and it would thus involve the entire production process in cultural and creative organizations: from the identification of objectives to their evaluation and impact. On this last point in particular the OMC (Open Method of Coordination) group, introduced by the European Agenda for Culture, consisting of experts from EU Ministries in order to share policy experiences and good practices and develop policy recommendations on the themes identified in multi-annual Council Work plans for Culture “highlighted the importance of supporting action with a sound evaluation methodology” (European Union, 2012, p. 103).

Through text analysis and the development of an *ad hoc* questionnaire, it is possible to supply a useful tool for the impact assessment which cultural products have on their particular public, with a psychosocial point of view, thus transferring the focus of the verification to the use and satisfaction of the cultural services from the audience side.

1.3. *What then is culture?*

The concept of culture is quite vast. Let’s start from the etymology definition; “culture (n): mid-15c., "the tilling of land," from Middle French culture and directly from Latin cultura "a cultivating, agriculture," figuratively "care, culture, an honoring," from past participle stem of colere "tend, guard, cultivate, till" (see colony). The figurative sense of "cultivation through education" is first attested c. 1500. Meaning "the intellectual side of civilization" is from 1805; that of "collective customs and achievements of a people" is from 1867” (http://www.etymonline.com).

We propose here three further very general meanings of the concept of culture: in the humanities, it is often intended as that which has been best thought and learnt, the masterpieces of the human creative genius in all the arts; for the social sciences, it often refers to the whole complex of meanings and practices historically transmitted in different human societies such as myths, customs and traditions; for psychological sciences, it generally refers to that set of affective symbolizations that guide relationships in a given context (Carli and Giovagnoli, 2011; Carli and Paniccia, 1999, 2003). Within the current convention it seems possible to say that the cultural associations are defined above in relation to the first two definitions. Their core business services relate different aspects these, maintenance, maintaining, conservation, promotion, use and fruition, up to the participation in the creation of culture, material and immaterial.

Having to deal with organisational development, the focus is on the third meaning of culture. This is a unconsciousness weave, more inacted than thought, that participates in that context. It is interesting to understand its function in moments of change, such as new relationships, tasks and objectives. The aim of verification is one among them, not only as an evaluation but as an opportunity of gaining awareness and thought regarding one's own culture. The instruments, here proposed, permit building knowledge on the *Local Culture* (Carli and Paniccia, 1999) of the organisations to drive their innovation.
2. Methodologies: ETA and Indicators of Organisational Development

ETA is a co-occurrence analysis (gained using Alceste, Iramuteq or T-Lab software) based on a selection of dense words, specific *mots pleins* words which are interesting for their emotional value and therefore useful in drawing out indicators on the affective symbolization of the text object. Dense words are in practice a more specific category within the larger one of *mots pleins* (Battisti and Dolcetti, 2012; Carli, Dolcetti and Battisti, 2004, 2006; Carli and Paniccia, 2000, 2002; Lancia, 2004; Reinert, 1993, 1996).

ETA is a particular case in sentiment analysis, not restricted only to basic emotions - *happiness, sadness, disgust, anger, fear* - (Ekman, 1973), or only to the positive-negative dichotomy, but considering a wider and complex range of emotions especially including those culturally constructed. ETA, further, has a proximity to semiometry. We should keep in mind that the factorial analysis on the affective meaning of words, from which the sentiment takes shape, reveals at least three factors able to explain the semantic variation underlying the words: evaluative, potency and activity (Sinder and Osgood 1969; Osgood, May and Miron, 1975); while the french papers on semiometry have revealed different semantic dichotomies that are the basis of a collection of texts considered significant to the western world: duty/pleasure, attachment/detachment, sublimation/materialism, idealization/pragmatism, humility/soverignty (Lebart, Piron and Steiner, 2003); meanwhile between the 1940’s and the 1990’s McClelland (1985) studying human motivation identified and measured three fundamental life concerns: achievement/success, power/impact and affiliation/intimacy.

ETA, having its theoretical-technical roots in psychoanalysis and psychosociology, inherited the result of all these studies with an interest in tighten the theory-research-practice connection. This led to the identification of further interpretive models of social ties, on the one hand highlighting some base emotional dichotomies such as inside/outside, in front/behind, high/low; and recovering some organizational functional emotional dichotomies such as social mandate/commitment, user/client, fulfillment/objectives, control/verification, norme/criteria, output/outcome; on the other hand, a scheme of neoemotions, culturally constructed and not innate biological expressions, is proposed: branches from expecting towards the controlling-distrusting class, and so towards another two classes, provoking-obliging and complaining/worrying (Carli and Giovagnoli, 2011; Carli and Paniccia, 1999, 2002, 2003). At the end of this excursus, beyond certain nominal differences, strong parallels in the results of the research can easily be noticed. Regarding ETA it is useful to add here that as the choice of dense words is made by the researcher on a case by case basis (to this date an ad hoc vocabulary has not been created) it is important that both their statistical, technical knowledge and their psychological expertise to be accurate and specific The research is dedicated to detecting the degree of agreement in the classification of the words of the texts as dense or not. According to expert judges high agreement was detected on a ⅔ ratio overall of the words. The area of the low agreement of the remaining was characterized by the presence of many “contextual” words, that although dense in general were excluded from the analysis in those studies in which they were the object of the research itself (Battisti and Dolcetti, 2012).

Remaining within the technical-theoretical framework referred to here, during the second phase of the research, we utilized a questionnaire with the objective of collecting together the Local Culture (Carli and Paniccia, 1999) of the relationship between the organization and its public with other aspects such as satisfaction, motivation for participating at cultural events and habits in the fruition of various cultural services. Overall the questionnaire focuses on revealing Indicators of Audience and Organizational Development (IAOD). The survey format is made up of a set of base and closed questions tested over the last 20 years in psychosocial research that reveal specific cultural models of co-living and that constitute the
Indicators of Organisational Development (IOD) questionnaire together with a set of questions that are drawn from the knowledge based on the ETA results (Carli and Salvatore, 2001; Guidi, Venuleo and Salvatore, 2015). The data of this kind of survey is treated through multiple correspondence and cluster analysis with the aid of Spad or Dtm-Vic software.

In the next few paragraphs we will discuss the transition from the results of the text analysis of interviews to closed-ended survey items in detail.

### 2.1. Characteristics of the analyzed text with ETA

In the first phase of the research an ETA (Emotional Text Analysis) was applied on an interview corpus gathered during the events over three editions of the Festival delle Storie (2012-2014). 395 interviews were held with 460 interviewees, individually, in couple or in small groups formed by a maximum of 3 or 4 people. The interviews were grouped by stakeholder type: general public (244), organizers (53), guests (45), local public administrators (23), sponsors and local entrepreneurships (30). As mentioned, the interviews collected texts developed in free conversation with the subjects starting from a single question posed by the researcher: “What motivated you to participate in the Festival of Stories and what will you take away from this experience?”. The texts were audio-recorded and accurately transcripted to text files. The corpus was found to be composed of: 251,252 tokens, 14,469 types and 7,121 hapax with a Types/Tokens Ratio of 0.058. So, given the good linguistic richness corpus, it was certainly treatable with a statistical and textual approach.

1,646 were finally put into the dense words analysis (in terms of the types).

### 2.2. Items of the survey based on the ETA

The items of the questionnaire built on the basis of the text relate to different areas of the survey: satisfaction and motivation to participate in the festival; the problems and the success factors and the expectations on the future is about the festival that the wider social boundary (in this case the Comino Valley and Italy).

For reasons of space, only the construction process followed for select items that measure satisfaction will be described. These were preceded by the following sentence: "We ask you now to evaluate some aspects of the Festival delle Storie. How satisfied by it were you?", followed by a request to respond to all items offered with a 4-step scale (a scale of four steps): 1 = definitively dissatisfied, 2 = dissatisfied, 3 = satisfied 4 = satisfied definitively.

In the above Table 1, beside each item the lexical context from which the item is drawn is indicated. The process involved moving from co-occurring words in clusters into stimulus sentences, able to allow the audience to recall their own both statistically and emotionally significant words of interest. For each group of words, taken from the clusters and used to build the items, there are indicated both the statistical significance and the affective and semantic models (see Par. 2) that establish a shared ground for the interpretation of the data.

<table>
<thead>
<tr>
<th>Items</th>
<th>Results derived from clusters in various years and from different target analysis (words in clusters are in Italics; chi² is in brackets; models are in quotes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The opportunities to discover the best features of the territory</td>
<td>The dense words of this item co-occur with others that indicate the local dimension: valley (377.45), village (243.45), local (99.96), Italy (70.30), mountain (56.13), town (15.52), town (15.52), region (13.87); but also with words such as: surprising, fall_in_love, value. Here</td>
</tr>
</tbody>
</table>
The promotion of the local cultural, touristic and enogastronomic economy

| Dense words of this item co-occur with others indicating economic sectors: | restaurants (72.04), trade (17.71), hotel (11.78), bed and breakfast (11.99), town (15.52); elicit a tension to develop new markets: grow (141.04), contribute (64.67), discover (60.56), sustain (25.96), exploit (25.95), tours (11.08), taste (6.30), correct (5.94); and others related to local agriculture: oil (37.85), wine (30.04), olive (23.76), typical (14.35), seed (14.60), bread (10.46), cheese (9.59), ratafia (5.82), sour cherry (4.59). Here the emotional base is indicated by: “activity”, “potency”, “power”, “outcome”, “pragmatism”, “control” on the environment. |

The expertise and professionalism of the organisation

| Dense words of this item are co-occurent with different aspects of work such as: staff (12.79), group (10.31), effort (8.80), difficulty (42.33), extraordinary (33.01), management (39.79), coordination (15.45), job (146.70), responsibility (10.19), dedication (5.09), challenge (5.27), modest (5.09), thank (7.09), bravura (27.60). The underlying emotion is a certain atmosphere of “need for achievement”, orientation toward “outcome”, “evaluation” and “humility”. |

The climate created among the people in the festival

| Climate, as the atmosphere in one place, or way to live there, is a dense word that co-occurs with invite (58.59), meet (332.79), chat (9.61), open (26.80), share (12.30), young (101.47), friendship (97.62), home (102.53), join (44.04), human (34.41), positive (74.36). It evoked the “need for affiliation” focused on being “inside” a group, creating and maintaining “positive” and “pleasant” relationships. |

The locations and the scenery chosen for the events

| Dense words of this item give an account of interest to the environment and to the spaces used, words which, in turn, co-occur with other such as: tours (50.35), nature (47.97), square (37.53), old_town (17.52), town (16.56), castle (12.73), cafe (7.49). Here the base is indicated by feelings of “pleasure”, “outside”, “materialism” and “pragmatism”. |

The chance to discover and learn new things

| Dense words of this item co-occur with others such as: enrich_oneself (85.88), discover (60.60), debate (54.09), engage (53.03), learn (19.60), come_near, (17.07), communicate (12.19), lesson (11.21), transmit (11.10), immerse_oneself (10.92), nurture (6.34). All these words testify a use of the festival oriented by the “need for achievement”, feeling oneself “inside” and “high”, as a “sovereign”. |

The opportunity to satiate your cultural curiosity

| Dense words of this item co-occur with others that indicate various art forms: book (452.36), novel (93.99), poetry (32.40), films (9.28); and verbs like: write (481.91), tell (448.37), curiosity (209.66), enjoy (111.69), to know (100.24), be_inspired (13.62), taste (13.93). The underlying emotion is a certain atmosphere of “sublimation”, “pleasure”, “intimacy”, “evaluation”, “activity” and feeling oneself “high”. |
Table 1. Items of the survey and results from ETA

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Dense Words Co-occurring</th>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to live new emotions</td>
<td>hope (320.48), new (50.60), remember (26.77), love (21.96), passion (16.23), attraction (13.59), charm (14.75), optimism (10.81), desire (5.9), nice (14.94), depression (6.49), intimacy (6.23). All these words testify a use of the festival oriented by the “need for affiliation”, a feeling of “intimacy”, of being “inside”, “pleasure” and “idealization”.</td>
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<tr>
<td>The prestige of the festival and its guests</td>
<td>acknowledgment (100.24), television (47.24), fame (21.75), redemption (14.77), stimulating (14.22), success (14.08), pushing (13.72), elite (11.82), progress (11.81), elevate (11.46), pride (10.70), spreading (9.45), evolution (8.18), notoriety (6.46). Here the base is indicated by a feeling of “needs for power and for achievement”, “control”, “output”, “sovereignty”.</td>
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<tr>
<td>The possibility to find new inspiration for one’s interests and work</td>
<td>production (121.20), possibilities (50.71), commitment (44.80), investment (28.71), realize (21.61), trade (20.89), support (18.30), dream (17.92), utility (17.45), pay (13.71), invent (10.88), occupation (7.49), opportunity (4.42). All these words testify a use of the festival focused on the “need for achievement”, “need for power”, “commitment”, “objective” and “outcome”; a feeling of “potency” and “activity” in the semantic nucleus of “materialism” and “pragmatism”.</td>
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<tr>
<td>Being able to participate in creative experiences (laboratories, workshops, etc.)</td>
<td>journalism (260.87), play (151.32), grow (141.05), have_fun (116.69), study (100.84), school (76.85), music (63.56), photography (55.00), autonomy (41.87), build (39.88), teach (32.44), direction (24.78), animate (21.63), draw (15.08), try (11.56), effort (8.81). “Needs for achievement”, “need for power” an orientation to “materialism”, “objective” and “outcome”, something that is “in front” and you can “verify” are evoked together with a “need for affiliation” and a “feeling of pleasure”.</td>
<td></td>
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</table>

3. Conclusion

Our experience confirm how in the social sciences the using of explorative analysis is fruitful in constructing more structured instruments and integrating survey fields, used up to now, with other areas that deepen the understanding of the needs of the local context. In this case, further, we set off from an absence in the Italian context of an ad hoc instrument. Finally a general aim was to keep the richness and the specificity of themes and emotions drawn from an open question and to extract from this closed questions.

Positioning themselves in this audience development movement, organizations are interested, beyond verifying their success from a quantitative point of view, in understanding the affective symbolizations which orient how the public uses their products and services and which have a wide impact on their social lives. The aim is to foresee the direction and to follow the development.

In a recent European Commission call for tenders, entitled “Study on audience development - how to place audiences at the center of cultural organisations”, audience development is
described as “a strategic, dynamic and interactive process of making the arts and culture widely accessible. It aims at engaging individuals and communities in experiencing, enjoying, participating in and valuing the arts and culture through various means available today for cultural operators, from digital tools to volunteering, from co-creation to partnerships. Audience development can be understood in various ways, depending on its objectives and target groups: [1] increasing audiences (attracting audiences with the same socio-demographic profile as the current audience); [2] deepening relationship with the audiences (enhancing the experience of the current audiences in relation to a cultural event and/or encouraging them to discover related or even non-related, more complex art forms, thus fostering loyalty and; [3] diversifying audiences (attracting people with a different socio-demographic profile to the current audiences, including people with no previous contact with the arts).” (European Commission, 2015, p. 4). The instruments proposed in this work aim at developing a deepened relationship with the audiences as a strategy toward achieving the other two proposals of the European Commission.

Most of the studies of this nature have been carried out in Britain. There have been others in the United States and Canada as well (Belfiore, 2006; Fujiwara, Kudrna and Dolan, 2014; Hill and Capriotti, 2008; Matarasso, 1997; Merli 2002). The conspicuous presence of Impact assessments in the English writings is due to the custom in that country to base their policies of financial support on organisation’s results; in contrast in Italy the attention is on premises tied to the legal nature of the organisations or at least to the internal quality assessment system of their own services. In general both the policies and the research on impact show the transition from an organisational model more involved in verifying the cultural-artistic offer in its internal function to a model that includes the relationship with the audience and its potential development. This innovation in the rapport with the client emerged from the private sector, starting from the 80s, where it had always been seen more as a part of the organisational process giving vitality little by little to a more client oriented development strategies (Norman, 1984).

In the literature we have encountered participation of cultural activities impact studies on both the economic and social levels. One very famous and debated study in this field was that by Matarasso. This Author moves from an impact economic focused to one more relating to people as individuals or community: personal development; social cohesion; community empowerment and self-determination; local image and identity; imagination and vision; health and well-being (Matarasso, 1997). Even if these measures cover wider fields, the particularity of this study show a concept of social impact more or less predefined within categories nearer to the culture of the financial backers concerned about aspects such as health and wellness, social integration, voluntary tendency, social spending saving, improving economic success. There remains, however, in this extension the necessity to find out , one by one, which are the indicators that are locally more resonant for the audience and the other stakeholders .

The results of the questionnaire administered (to 330 people) during the Festival delle Storie were elaborated and discussed with the organizers and other stakeholders. The survey then served as a good model for exploring another Italian cultural event in its first edition in the same year (2015): Festival starEandare Racconti di Estate Romana (http://stareandare.tumblr.com/).

4. References

CONSTRUCTION OF AN AUDIENCE DEVELOPMENT QUESTIONNAIRE


