Abstract
This paper reports on the first stage of an Italian national project, Access Thorough Text (ACT henceforth), designed to respond to issues related to reading strategies, textual barriers and online access to web texts in English in educational environments, with specific reference to English as a Foreign Language (EFL). The first stage of the work has been focused on the theoretical foundation on which the project is based, in particular giving suggestions about how digital literacy for learners aged 6-18 can be encouraged and facilitated in web-based multimodal platforms (Jones, Hafner 2012). An inventory of integrative systems has been created to account for a range of devices that help break down barriers in texts (Baldry, Gaggia, Porta, 2011; Gaggia 2012; Porta 2012). The second section of this paper presents the design and administration of a needs analysis for the identification of specific needs for the three targeted age groups of EFL learners (group 1: 6-10, group 2: 11-14; group 3: 15-18). The survey also investigates which best practices can be adopted with regard to a) ease of access; b) awareness of sociocultural and genre-related textual barriers, and c) language problems for EFL learners. This paper will focus on Group 3, i.e. learners aged 15-18, and on how New Travel websites (NTWs) can be used in educational environments through task-based activities.

Preliminary findings have shown that the text barriers identified in NTW can be ascribed to different socio-semiotic, multimodal and linguistic areas. Multimodal corpora have been created and annotated for the purpose of unpacking and tackling text barriers. The rationale of corpora selection (Baldry, O’Halloran 2010), replicability of the experiment, issues in categorization and taxonomies involved in NTWs will be discussed, with the final goal of providing guidelines for teachers, parents and other stakeholders in the field of digital literacy.

1. Digital literacy in the multimodal web domain
Digital literacy is a necessary skill in contemporary society and especially so in contexts where this project originated. At the time of writing this paper, the World Economic Forum has ranked Italy 48th in terms of global competitiveness, 32nd for general technological innovation and beyond 100th for hi-tech products demand. Considering the question at
national level for Italy, the most alarming data come from the North-South divide. In the South of Italy, research on development and technological innovation is well below 30%. Things get worse and worse if Sicily is taken into consideration: it ranks 235th out of 262 European regions with regard to competitiveness index, with a fall of 50% in industrial investments and a further fall of 10% in sales volume. In this context, the digital domain is particularly neglected. To name but a few examples, 53.4% of Sicilians use the PC against a 62.8% in Italy, 52% of Sicilians have access to the web against 60.7% in Italy.

Literacy used to be associated with reading and writing (Sindoni, 2012) and has always been attached to Western-centred values, such as formal instruction in institutions like schools, universities, etc. However, the notion of literacy has embraced other skills and abilities in the digital era (James 2013).

As recent research literature attests, multimodal literacies have broadened the previous and somewhat biased concept of literacy tout court, thus including the mastery of skills other than reading and writing. Jones and Hafner, for example, argue that digital literacy cannot be merely defined as the ability to master a set of operational and technical skills, but is more complex, and includes “the ability to creatively engage in particular social practices, to assume appropriate social identities, and to form or maintain various social relationships” (Jones & Hafner, 2012: 12).

Multimodal literacies also encapsulate a wide range of semiotic resources that users need to learn to recognize and discern, beyond the preliminary acquisition of a set of operational and technical strategies that can be learnt thanks to task-based activities (Robinson 2011), such as surfing the net, logging in to a social platform or email account, or searching the web for specific information. Being fully functional in digital environments requires the ability not only to perform basic “technical” operations, but also the development of individual’s sociosemiotic skills, in particular being able to participate in social practices, acquire social identities and engage in social relationships. Hence, sociality and sociability are connected to notions of literacy (Lankshear & Knobel, 2008).

Being involved with digital literacies means mastering intercultural communication, socio-cultural exchanges, collaborative and peer learning. Following this approach, this wide range of abilities can be grouped under the label of adaptive strategies, meaning all the strategies that are necessary to “bend” tools and their initial technical affordances to new environments or new needs (Sindoni 2011, 2012). For example, reading a textbook is different from reading a Twitter thread. The latter is an operation that requires particular skills, such as understanding remediation and knowing Twitter syntax, thus implying a
different deployment and use of the semiotic resources involved in the two reading processes. Conversely, writing a status update on Facebook using a keyboard is different from writing it using a smartphone (Sindoni, 2013). The semiotic affordances required to perform the task in this last example are the same, but what changes is the technical difference in operating the writing process on a PC or on a smartphone (Hartley, 2010).

All these skills and abilities cannot be taken for granted. Users usually learn how to search the web on their own, that is, without formal instruction. However, this cannot be equated with the idea that users, especially if they are students, are able to engage with the more subtle communicative and social practices that are embedded in digital experiences. Children or young people may encounter many different kinds of risks, some of which can seriously threat their safety, for example in terms of privacy violations, cyberbullying, identity theft, etc. (Edgington 2011; Mitchell 2011).

Reading and writing are literacy skills that are most typically learnt at an early age and in formal instruction contexts, such as schools, so they are unambiguously taught and learnt. Digital literacies, as this section has briefly outlined, are more complex and cannot be described in mere technical terms. They imply the acquisition of a range of social abilities, and especially because they need to be put in practice outside monitored environments, such as school (Unsworth 2006). The overarching goal of the project discussed in this paper is to provide guidance and direction to different stakeholders (e.g. teachers, parents, caretakers, children, institutions, society at large) in terms of potentialities, affordances, dangers and learning goals for learners of English as a Foreign Language (Marsh 2004).

This section has briefly sketched how teaching and learning have been modified in the digital age and how teachers need to take into due account problems that learners may encounter when reading and writing digital texts in English. In Section 2, some possible barriers in digital literacy will be identified to propose possible solutions in terms of teaching and learning strategies. In Section 3 the development of the needs analysis will be explained, while in Section 4 the area of interest for Group 3 (learners of 15-18 age range) will be tackled, i.e. New Travel. Section 5 will present the construction of a web corpus to develop a web browser from the specifications found through empirical data, which emerged during the first stage of project. Finally some conclusions will be presented, indicating future developments.
2. The identification of web text barriers

This study has been grounded on the specific identification of text barriers that used to be associated with barriers for disabled people. The recognition of physical and digital barriers for disabled people has led to the development of several protocols that must be taken into account when designing web pages, especially in institutional contexts. Several rules and regulations have been established within EU. For example, *The Digital Agenda for Europe 2010-2020* reports that 50% of EU population uses the Internet every day, whereas 30% has never used it, creating a dramatic gap in digital literacy and in the current use of digital technologies. Specific protocols have been developed for categories of people with problems of various kinds, for example disabled people. Some actions have been undertaken to solve problems in direct access to the information society (European Commission 2011).

However, other problems are more covert and less easy to monitor. Children and young people require special attention also in the context of formal education. Not many institutions incorporate digital texts in their curricula and teachers may be cagey about using web-based materials, due to the alleged lack of quality control on the web. Furthermore, children and teenagers are high consumers of web-based texts, despite the fact that some problems are still understudied, such as the partial or total lack of parental control and absence of specific safety protocols that could be developed in a similar vein to what has been designed for disabled people. This paper tries to fill this gap, also taking into account previous research developed within the project (Cambria, Arizzi, Coccetta, 2012).

Consistent with the theoretical rationale described in the previous section, the general ACT (Access Through Text) project’s aim has been to promote awareness of the existence of text barriers that go beyond those traditionally recognized, for example beyond those identified for disabled people. Other sub-goals are listed below:

- promotion of cross-fertilization among the different fields of studies and areas involved in the project;
- promotion of awareness of text barriers at different social levels by encompassing a broad range of stakeholders (e.g. parents, caretakers, educators, teachers, language planners, web designers, etc.);
- experimentation, both at technical and educational level, to find new possible solutions for the issues generated by web barriers;
- reflection to provide theoretical and experimental grounding for the revision, improvement and enhancement of training and teaching methods, strategies and goals;
 教学英语与技术，15(2)，19-38，http://www.tewtjournal.org

- 全面提升英语 linguistics 通过多学科方法，并参考多模式研究在语言规划和语言政策视角下的应用，特别是在国家和国际层面。特别关注文本障碍的识别，这些障碍可能由英语知识不足或缺乏数字技术知识引起。

我们以多模式、社会符号学和文本驱动分析框架为出发点，项目的目的是提供软件解决方案来克服文本障碍，例如通过手动、半自动和自动系统进行多模式语料库标注和注释（Baldry 2008, 2001a, 2011b; Baldry and O’Halloran 2010）。这些系统有助于帮助学习者搜索感兴趣领域的英文网站。这三个领域已在项目设计阶段确定，即针对不同年龄段的需要分析，分别在6-10岁、11-14岁和15-18岁年龄段。

3. The development and administration of a needs analysis

为了对目标领域的需要有一个清晰的认识，即三个儿童和青少年群体（即第一组：虚拟博物馆，6-10岁；第二组：在线俱乐部，11-14岁；第三组：新旅行，15-18岁）。需要分析旨在比较在线和离线的儿童经验，同时也考虑了文本障碍和社会文化障碍之间的关系，例如发起者、父母/家庭/照顾者的经济困难或缺乏合适的培训。其他需要在初步阶段调查的问题包括儿童/青少年获取在线内容的真正机会。

无障碍问题被广泛考虑，不仅仅是为了残疾人士，还考虑到了参与者家庭因经济困难而无法获取网络和学校设备缺乏，特别是在意大利南部，这是项目包括的两个地区之一。项目子单元在南部（Messina）的运营。
accounted for in this paper, whereas other studies have been carried out to discuss findings in a Northern Italy region, namely Friuli Venezia Giulia, but including two cities (Udine and Trieste) with different cultural and linguistic backgrounds. Furthermore, other specific issues were considered, such as the difficulties encountered by learners in accessing websites in English, where the language barriers could present a further accessibility issue.

The sample group is made up of 200 students from the technical high school “Istituto Superiore Minutoli”, in Messina, Sicily. The questionnaire was divided into two parts, one asking for sociodemographics information, the other investigating background digital skills, self-perceived degree of digital literacy, and routine in web practices. From the answers, it has emerged that informants are heavy Internet users and that, in particular, they use social media, such as Facebook, YouTube, etc. with the main aim of finding out information or other contents about some favourite topics, such as fashion, sport and music. However, informants also claimed that English is often a barrier to a full understanding of contents and that search, (usually made by using search engines, by clicking on a hyperlink, etc.) is made more difficult by a poor comprehension of the English language (74/200). Complete lack of understanding is complained by 45% of informants. Among the most serious problems of understanding in a website, informants indicated body of text, subtitles and links. The most relevant findings of this survey for the targeted age range are: 1) the general need for a dedicated web browser to facilitate web search for English websites (147/200) and 2) the interest in New Travel, combined with problems of understanding and making sense of the complex interrelated issues. For example, students reported in structured and semi-structured interviews that they poll Facebook or Twitter friends about places or ask for information about restaurants and travel tips. New Travel has been thus identified as a special area of interest for the targeted age range and the general phenomenon of New Travel will be the subject of a more articulate description in the following Section. The answers to the questionnaire are fully shown in Appendix 1.

4. New travel: definitions and challenges

In the past decades, the rise of online communities, forums and social networks has fundamentally changed our travel habits. Not so many years ago, trips started with a visit to a travel agency and the library to collect guidebooks, maps and other destination information. This seems remote past, as our travel plans usually start with an Internet search today (Dewdney and Ride 2006).
New Travel is an example of media integration (Thurlow and Jaworski, 2010; Sigala, Evangelos, Gretzel 2012). The first step is choosing a destination to go, going through review sites like Lonely Planet, gathering opinions from friends and relatives, or looking up the destination on Wikipedia. Once a leisure or business destination is decided, users move to flight/rail/bus/car/hotel booking portals, looking for options that fit into their budget, while providing the required levels of comfort and facilities (Miguel 2014).

![Travel Shopping Stages](image)

Figure 1. New Travel’s different stages.

Multiple metasearches are required, as the traveller looks for the best deals. The final step would be processing the payments. Figure 1 presents the complex interrelated stages that can be found in the experience of New Travel, such as 1) travel shopping stages that include destination search, booking, planning and paying stages; 2) reading about other travellers’ opinions and experiences through websites such as TripAdvisor; 3) communication through social media, such as Facebook, Twitter and others. Furthermore, New Travel also includes significant experiences, such as planning a day out, surfing the net for the best disco/pub/restaurant, reading and writing about their experiences, specifically those involving “going out”, “eating out” and “a day out” (Germann Molz 2012).
Figure 2 below showcases different stages involved in the macro-experience of New Travel.

The above shown scenario presents all the stages involved in the process of ideating, planning, scheduling and processing payments. All these steps, activities and skills necessary to engage with New Travel have been addressed in the project by creating specific task-based activities that can be carried out in a controlled environment, that is a web browser allowing search limited to a pre-set number of pre-selected websites. This device has been identified as a half-way experience: texts and materials are authentic and allow interaction with other users outside the browser, but a pre-set number of websites avoid overload of information for learners.

Students in Group 3 are unlikely to take part in all the stages represented in Figure 2, mainly due to their age and inability to plan and pay independently. However, they can be engaged in a number of other task-based activities. The first stage involves reading reviews and being part of communities and forums. These participative and collaborative task-based activities are also highly educational and need practical training in digital literacy (Sindoni 2011). Sites such as FlyerTalk and TripAdvisor predate today’s most popular social networks and are full of discussions, opinions, suggestions and expert advice from travellers. Travellers, however, are not only those who extensively travel for business or leisure purposes. They can be occasional travellers or students planning a day out. Reviews are useful to choose travel, but there have been controversies about slanted reviews or unduly harsh ones (Anonymous 2011) and users, especially younger users, need to be trained in understanding.
interpreting and contributing to this specific web-based genre. The practice of writing and reading reviews is part of a digital experience, and online reviews as a genre have not been fully studied yet (Bianchi, 2012). Task based-activities, for example, can be designed to help produce credible reviews or assessing the credibility of the review.

Other New Travel digital features are social status updating: some informants claim they find out who in their network has already been to the places they want to visit using Social Graph Search on Facebook.

Another less known feature is called Social Local Mobile (SoLoMo): informants claimed that they can use specific social networks, such as Yelp and Foursquare, when they visit new places. Such specific social networks help users find nearby places of interest. Yelp has an augmented-reality feature in its mobile application called Monocle, which informs about the nearby places of interest that can be found by sweeping one’s own mobile phone around. Foursquare is filled with tips for users and also helps finding nearby connections.

Other features include the practice of social recommendations: for example, travel websites use social sharing tools to advertise their business. Informants claimed that when they look at a pub or disco website and a widget on the business’ page tells them that their friends liked that page on a social network, they are more likely to visit that place. They are influenced by other people, especially if they are friends or friends of friends. In the next section, the steps undertaken to help students engage creatively and responsibly with New Travel digital experiences will be discussed.

5. Corpus creation, tagging and annotation

In the complex picture briefly outlined in section 4, Group 3 fits only to a certain extent. Such issues as being underage limits learners’ experiences with New Travel. However, some specific travel options are very widespread, for example planning one-day trips, travelling abroad for study (e.g. for language learning, study holiday, etc.), and travelling with parents and relatives. The main component that resulted from the survey was that Group 3 engages in travel to a limited extent and this may be explained considering the sociodemographics of the sample. However, if we consider travel in a broad sense, it can be considered as a social activity in the form of writing reviews or status updates in social networking platforms, but also in helping parents or relatives with, albeit limited, travel planning.

With the goal of providing guidelines of use for a specific browser, a corpus made up of 50 New Travel websites has been created. The rationale for corpus creation has been to set a limit to the number of websites to the number of fifty for each target Group. The final list is
reproduced in Appendix 2. The corpus was created with the aim to incorporate a limited number of New Travel Websites into the web browser. Many task-based activities can be carried out using the web browser, and students are facilitated thanks to a much more restricted number of websites related to one topic in one learning space.

What has emerged from extensive web search is that there is a huge amount of diversity in New Travel websites from a range of standpoints. Consequently, a categorization has been attempted with the aim of understanding the details of the analysed phenomenon, i.e. New Travel, and of providing reliable guidelines for the development of the final web browser, i.e. MWS ACE (cf. Baldry, Gaggia, Porta 2011; Gaggia 2012; Porta 2012).

Below the identified categories are listed, from more to less general:

1. **Recommendation engines for travel**: these sites mainly provide suggestions for travel based on reviews and advice from the user’s network of (Facebook) friends. Two examples are the well-established Gogobot and the more recent Tripbird.

2. **Communities based on products**: these sites blend users and suppliers in the same platform in different ways. Several degrees of interaction were observed between users and products, ranging from peer-to-peer websites, like Couchsurfing and Tripping, to more commercial sites, like Airbnb. The former category includes users that want to share some product, for example a room while travelling, whereas the latter provides suppliers (for example users with an extra room to rent) with a platform where they can advertise and eventually “sell” their product (e.g. a room to rent). Low budget travel exchanges, with shared accommodation and rooms to let are a very popular option among young people and students.

3. **Travel friend finder**: popular dating sites, such as Meetic, promise to help you find the ideal partner based on common interests. More dedicated dating and friendship websites, such as Wayn, are focused on connecting people based on places. TasteDaily, for example, targets “mobile citizens” and, more specifically, “bold women on the go” and is built around a community of women who give “inspirational lifestyle” advice on a number of topics, often revolving around travel.

4. **Travel sharing experiences**: VirtualTourist and Tripbod allow travellers to share their experiences with other travellers. Other more recent evolutions of this kind of websites are Kukunu and Planr that give advice based on users’ social profiles.

5. **Local guides and experiences**: the recent developments in glocalisation on the web, that is connecting globalisation with local activities, have brought about interesting changes also in New Travel. In particular, some websites are less generalizing than
other more well-known predecessors, such as TripAdvisor, and are meant to represent resident travel experiences, for example providing local guides or information about specific cities or places (e.g., national parks). These websites also connect travellers with locals and help create social relationships: instances are Tourbylocals and Vayable. This category is also particularly useful in this context, because young people and students may be engaged in school or university exchange programs (e.g. Erasmus project) and likewise willing to share knowledge and expertise about one’s own geographical area.

6. **Specific interests networks**: these websites are further restricted in their focus, as they engage travellers in very specific activities, such as cruising, kayaking, group adventure travels, even climbing mountains (e.g. Peakery). This last category is also interesting in that it allows users to coalesce around common topics of interest.

As can be seen from the list above, the experiences of New Travel are much more multifaceted and complex than expected during the planning stage. The construction of the corpus has taken all these categories into account, with the selection and inclusion of eight websites per each identified category (plus two extra websites that can fit into more than one category). To the purpose of incorporating a wide variety of New Travel websites, the above listed categorization has been used also in the tagging and annotation stage, with the aim of facilitating students in their search. Tagging and annotation involve both manual, semi-manual and automatic techniques that span from manual semantic and semiotic annotation (for ex. identifying topics, categorizing websites, or matching targeted age groups) to automatic systems that have been developed in previous studies for the creation of purposely designed web browsers (see Baldry, Gaggia, Porta 2011). Tagging and annotation serve the purpose of incorporating only the list of pre-selected websites (i.e. 50) in the web browser so as to control and limit overload of information for students. All the selected websites that represent the categories have been inserted in the web browser for the testing stage, which has assessed in both quantitative and qualitative terms the students’ use of, and satisfaction with regard to the web browser in question.

6. **Conclusions**

In the scenario presented in this paper, any headway is more than welcome, and especially so in the educational domain, where innovation, development and learning-enhancing strategies should be at the forefront. This paper has reported on the planning stages of the ACT project, whose final goal is to develop learning-enhancing educational strategies in the field of
multimodal digital literacies. The stakeholders who might be interested in the corpus methodologies and in the browser specification innovations are quite varied, including parents, teachers, learners, practitioners in the field of education and digital literacy, web planners and designers, and society in general.

The three strands of analysis have been organized along three different but compatible thematic areas (i.e. Virtual Museums, Online Clubs, and New Travel) that can be studied using multimodal corpus linguistics approaches that are beneficial for students, as these combined methods create opportunities to engage with task-based activities in a teacher-controlled environment (Baldry 2008, 2011b; Baldry and O’Halloran 2010). A survey has been used to analyse sociodemographics of the selected sample of students, but other thematic areas have been used to investigate the potentialities of such an approach, namely Virtual Museums and Online Clubs. Informants claimed that they are high Internet users and that they are mostly interested in common and popular social networks, such as Facebook, and media sharing platforms, such as YouTube. This means that teachers, parents and practitioners in the field of education cannot avoid using and understanding social media, also by incorporating them in their educational practices. Despite the fact that research in these platforms is still in its infancy, much work also needs to be done. The bottom line of this experiment is that areas such as Virtual Museums, Online Clubs and New Travel are potentially open-wide windows into the web galaxy that can shed light on the bridge between interest and learning.

Acknowledgements
I would like to thank Prof. Anna Franca Plastina for inviting me to contribute to this special issue and the anonymous reviewers, who really improved the quality of this paper.

References


Appendix 1. Needs analysis

Figure 1. Sociodemographics of informants.

Figure 2. Question 1: Do you use the Internet?

Figure 3. Question 2: Which websites do you surf? (Answers suggested)
Figure 4. Question 3: What kind of topics are you interested in? (Answers suggested)

Figure 5. Question 4: Do you usually find information about your favourite topics in websites?

Figure 6. Question 5: Do you understand website contents in English?
Figure 7. Question 6: If so, how do you find websites of interest?

Figure 8. Question 7: Do you understand the texts you read?

Figure 9. Question 8: Which website section do you find more problems of understanding?
Figure 10. Question 9: Do you understand texts that caption images and/or videos?

Figure 11. Question 10: Would you use a website that helps you selecting and searching websites of interest?
Appendix 2 – List of New Travel Websites

http://matadornetwork.com/
http://www.trippy.com/
www.tripadvisor.com
www.oyster.com
www.airbnb.com
www.hipmunk.com
www.orbitz.com
www.expedia.com
www.jetsetter.com
www.tripIt.com
www.wanderfly.com
www.gogobot.com
www.Smartrtravel.com
www.travelocity.com
www.kayak.com
www.airgorilla.com
www.onetravel.com
www.priceline.com
www.hotwire.com
www.bing.com/travel
www.yapta.com
www.wayn.com
www.couchsurfing.com
www.exploroo.com
www.gapyear.com
www.travBuddy.com
www.travellerspoint.com
www.Internations.com
www.bewelcome
www.linkexpats.com
www.tripcolony.com
www.tripatini.com
www.housetrip.com
http://www.lonelyplanet.com/thorntree/index.jspa
www.tripwolf.com
www.tripsay.com
www.minglejet.com
www.eyefortravel.com
www.budgettravel.com
www.tnooz.com
www.everplaces.com
www.wanderflyer.com
www.dopplr.com
www.driftr.com
www.virtualtourist.com
www.travelandleisure.com
www.tripbird.com
www.touristlink.com
www.kukunu.com
www.planr.com