Chapter 20
E-Commerce for Italian Textile Manufacturers: Limitations and Human Factors

Francisco V. Cipolla-Ficarra
Latin Association of Human-Computer Interaction, Spain & International Association of Interactive Communication, Italy

ABSTRACT
In the current chapter, the authors intend to present the strengths and the weaknesses from the standpoint of graphic computing, managing and productive computing, and the human factors that prevent boosting on-line sales. They analyze the reality of several businesses or industries, which are gathered under the word “group” and belong to the textile sector with high profits because of the high volume of invoicing, a hundred-year-old tradition, with important customers of the European, American, and Asian international fashion, etc. in a northern Italian region known as Lombardy. Paradoxically, the textile sector in that region, like others in Europe, is one of the environments where computing and the breakthroughs and the advantages in new technologies are difficult to introduce these days. The human factor is the main cause because of organizational structures of a vertical and/or family type.

INTRODUCTION
The expansion of the Internet took place quickly in the education sector, in the leisure sector and in the relationship between the public administration and its citizens (Salas & Peyton, 2009; Foley, 1996; Fremantle, Weerawarana, & Khalaf, 2002; Stafford, 2003; Cushing & Pardo, 2005). One of the main reasons why E-commerce has not expanded quickly in Southern Europe is a lack of security when carrying out payments using credit cards (Weigold, Kramp & Baentsch, 2008; Buchmann, May & Vollmer, 2006; Holland & Westwood, 2001). In contrast to the fact that the Spanish ATM network is the biggest in Europe since the 90s, Spain showed one of the lowest numbers of Internet users who made their purchases through the Internet that is, below 10%. At the end of the last decade, the banks started to issue “purse” or “pre-paid” credit cards, where the user can deposit the money before carrying out the operations in the Internet. This product is boosting the E-commerce among both young and adult users. Obviously, now we are talking
about users without accessibility problems to the internet, since they grew up with information technologies. However, some studies show that the problems in e-commerce increase exponentially in the case of blind users for example, due to the traditional motives of design and usability of the interactive systems (Bussi et al., 2011). This means in the communicability era there are still users who have remained stuck with their one or even two decade old problems (Cipolla-Ficarra, 2008). Interestingly, one of the skills of many blind users is the development of touch. The difficulty of providing touch sensations still prevents some industries from carrying out e-commerce, instead forcing buyers and sellers to gather in international fashion fairs to see and touch the goods (Dickerson, 1999; Kunz & Garner, 2007). The commercialization of great volumes of clothes whether it is for the industrial or the artisan sector requires manufacturers and those in charge of tailoring, to travel to fairs in Europe, Asia and America, thus increasing the costs for both sides (Diamond & Diamond, 2002). This requires the setting up of a stand or showroom for the manufacturer, along with the travel of the marketing staff, etc. On the other hand, the buyers have to spend hours and hours among all the clothes manufacturers, to see and touch the different clothes samples, grouped in special catalogues. This is one of the main current problems preventing online commercialization in the textile industry (McFadyen, 2008; Plant, 2000; Van Heck & Vervest, 2007). The problem in principle lies in the sense of touch. Although in the current multimedia system there is the possibility of emulating tastes and smells, there is no similar thing for touch as yet. Consequently, this is an interesting area to be developed, whether it is from the point of view of graphical computing, such as simulations, emulations and scientific visualizations of the clothes and the end products —shirts, trousers, coats, etc. (Wu, Au & Yuen, 2003; Grana, 2003; Meller & Elffers, 2002; Goldenthal et al., 2007; Kaldor, James & Marschner, 2008). Figures 1, 2, 3, 4, 5 and 6 are some examples from textile computer graphics. Numerous data sources for e-commerce strategies exist in the business management and production systems (Bosch, 2007; Rosenberg, 2007), that is,

![Figure 1. CAD simulation for a shirt –dobby (characterised by small geometric patterns and extra texture in the cloth)](image-url)