What You See Is NOT What You Sign (And Send)

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Let's start with a very simple file, available over the Internet at www.cfinot.eu/barackobama.htm

Senator Barack Obama will be next US President	**Senator Barack Obama will not be next US President**

On your screen the text will very possibly look as the one on the left, but if you select the text with the mouse, you'll read the version on the right side. If you choose to print it, Microsoft Internet Explorer will deliver the result at your left, and Firefox the text at your right.

How can this happen?

In order to answer this question, we must go into some technical detail and deal with the source code, the instructions the computer receives and translates into the images it sends to the screen or the printer. No need to be a computer geek, as we'll see. Let's think in musical terms. The score of a symphony is often the same for every conductor, of course, but Beethoven's Ninth performed by Wilhelm Furtwängler is longer, at least fifteen minutes longer, that John Eliot Gardiner's edition. Exactly in the same way, the same source code can be presented (on a monitor or through a printer) in quite different ways. Let's have a look to the source code of our example. On your left the pure code, as it can be found in the bowels of our machines, and at your right a few brief notes.

<html>	Between chevrons, <like this> commands which are not intended to appear in the text are shown. This command means simply that this file is an *html* one, the format typical of Internet pages. The same command, preceded by a slash, indicates the end of the file: it is the last entry of this table.
<body>	The body of the file begins. A file may also contain the so-called *headers,* information intended to facilitate the correct filing of the file.
<body style="background-color: white;">	The background of the page, the whole page, is white.
	Here we have a command that does not refer to the whole text, but only to a portion of it, a *span:* next words will be in black.
Senator Barack Obama will	This part of the text is black on white background.
	The following text will be white on white background.
not	This word is in white characters on a white background. Trick discovered!
	The following words will be in black.
be next US President	These words are again in black on a white background.
</body></html>	The slash means "end": end of the body and end of html file.

Nothing breathtakingly hi-tech: the word *not* is simply written in white on a white background. Most applications handle this situation on the screen, let's say, in a literal way: *not* therefore remains white on white, invisible, unless the text is highlighted with the mouse. Some browsers print the white word, others don't.

Just an amusing trick? No. Such things actually happen.

In 2005, an Italian intelligence agent was killed near Baghdad Airport by friendly fire at an American checkpoint. US military delivered a report [1] on the accident;

1 Still available at http://www.macchianera.net/files/rapportousacalipari.pdf

sensible information, including the names of the US soldiers involved (page 24), had been previously deleted. Well, sort of. In fact, the Pentagon file did contain that data, in black type on black background. A mouse is all you need: highlight the censored portions, choose "Copy", open a simple text editor such as Notepad for Windows, and paste. Everything will be readable. A trial was eventually held in Rome, but the soldiers were of course discharged as only American military courts have jurisdiction over members of the US military.

While in this first case the data leaking was not the object of the judgment, another Italian Court, the *Tribunale Amministrativo Regionale* in Naples, had to face our problem directly [2]. The case. An official committee was checking a group of bids for some important public works on the Naples shoreline. The bidders were required to submit their projects on CD or DVD in anonymous form, in order to protect the impartiality of the review, that was performed entirely on computers. During the exam of one of the projects, one of the members of the committee happened to trip with the cursor of his mouse over the list of the files available on a CD. A small window opened, showing several pieces of information; among them, the name of the author of the project. Nothing exotic (this is the way Windows behaves) but the bidding Company was immediately excluded as the project was no longer anonymous.

As one could expect, the case ended up in court. The Company put forward this argument: the data had not been entered voluntarily. Microsoft Word automatically picks up such information from the computer; most users never heard about this feature and do not know how to delete the data. The automatic behavior of a piece of software cannot be source of liability for the Company, who did not even have a choice: use of Word files was compulsory.

Under a purely factual point of view, the plaintiff's remarks are correct. Several data (author, date and so on) are routinely included in the files without any human intervention. Neapolitan judges are known all over Europe for their superior learning and a seemingly endless repertoire of cultivated subtleties, absolutely fit for a 26 centuries old Greek colony. That day they seemed to be in a testy mood. According to their opinion, a company placing an electronic bid for such an important contract is expected to hire a qualified computer technician, and cannot be excused for not doing so, period. The petition was rejected.

Such an argument did not gain unanimous consent among scholars. One Author suggested [3] that the claim should have been rejected on other grounds: the intentionality of the occurrence should be regarded as plainly irrelevant. The

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2 Tribunale Amministrativo Regionale della Campania, March 24th 2006 n. 3177, in *Diritto dell'Internet* (Milan, Italy), 5/2006, 499.

3 Daniele Burzichelli, *Anonimato, caratteristiche dei documenti e "ordinaria diligenza" nell'era digitale*, in *Diritto dell'Internet*, 5/2006, 506.

anonymity of the bids is required in order to protect the fairness of the decision process, in the best public interest, and this issue should be treated in an objective, not subjective way.

At the best of my knowledge, no Italian Court has been so far called to deal with our problem in a purely contractual framework. The date of a document or its author can be of the utmost importance in many circumstances. In Italian Law, for instance, the buyer must inform the seller of the product's defects within eight days. If the seller is able to demonstrate that the buyer learned about the defect more than eight days before he or she gave notice to the seller, the latter will not be held liable. I'm pretty sure that every lawyer in the world can easily sketch a few similar situations, where evidence that a person was aware of some facts at a given date can be decisive, in his/hew own jurisdiction.

Therefore, an attempt to present the data automatically entered in a file as evidence in court, is quite a possibility. If the document is also digitally signed, it's also technically subject to the “non repudiation” doctrine [4]. Each time we send via email a document, or we digitally sign it, chances are that we are signing or sending, hidden in our file, some data we'll perhaps regret one day. A wrong date, the name of the counsel who reviewed the document, even a previous draft of the file.

The most obvious option is to deny legal value to any part of a file that was not voluntarily created by the author. I expect this solution to have an high degree of appeal in most legal environments.

As a rule of thumb, the Common Law approach is usually known as quite faithful to the literal content of the contract, while the civil lawyer enjoys more freedom in filling the gaps of the contract tapping into external sources, in interpreting the contract with the help of the surrounding circumstances, in asking the judge for a redress of the economical balance of the contract itself.

I do not think that such traditional dialectics make much sense in our case. We are at a logically preceding level: we are trying to establish if the automatically entered data are part of the document or not, if they are part of the contract or not. Most civil lawyers will go for the negative, as a contract is generally considered the product of human will and action. I expect common lawyers to be on the same side, but of course I'm waiting for their own opinion.

The negative answer, however, brings another problem to the surface. How can one ascertain whether a given string of data was manually entered in the file by a human being, or automatically inserted by a software?

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4 As defined at paragraph 1.20 of the ABA digital signature guidelines, a set of guidelines published on 1 August 1996 by the American Bar Association Section of Science and Technology Law (available at http://www.abanet.org/scitech/ec/isc/dsgfree.html).

Let's take a trivial example, a text in the standard ISO 26300 format, also known as odt, created with a Linux machine running OpenOffice. Inside the file (in meta.xml, to be precise) the following data can be found:

```
            <dc:title> Demo odt text </dc:title>
  <meta:initial-creator> Ugo Bechini </meta:initial-creator>
<meta:creation-date> 2007-01-06T21:23:31 </meta:creation-date>
 <meta:generator> OpenOffice.org/1.9.104 3 </meta: generator>
```

Let's briefly comment each item:

- I entered the title, *Demo odt tex*, myself;
- my name was entered by the software automatically; this does not happen (in OpenOffice, at least) if you turn off the *Apply user data* feature;
- date and time were entered, without asking, by the computer (which could be, and often in fact is, substantially wrong), but are at least accessible (in OpenOffice) from the "file properties" settings;
- information about the operating system was entered automatically and the software does not allow any change or deleting, to the best of my knowledge.

In other words, this is not a black-and-white issue: at least a few nuances are clearly distinguishable. And the worse is still to come. Any common file type can be created through (at least) a handful of different applications. And each software has its own behavior. One will include a piece of information without asking for a confirmation, the other will prompt the user to enter the data himself/herself.

The consequence is that, in order to understand if a given element was entered in a file automatically or manually, an exam of the file will not be enough: the creation process of the file should be also investigated. At least for a civil lawyer, this is quite difficult to accept, as it will undermine (even at a prejuridical level, if you want) the basic function of the document itself, as the major source of reliable and objective evidence. A source of inspiration in such direction comes from a debate that dates back to the origin of modern Western legal civilization. While Johannes de Imola [5] deemed necessary to verify that the subscriber of a document was actually aware of its content, on the long run another scholar, Bartolus de Saxoferrato [6], the most influential jurist of Middle

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5 Professor of law at the University of Ferrara, Padua, Bologna; born in Imola around 1367, died in Bologna in 1436.

6 Born in Sassoferrato in 1313, died in Perugia in 1357. The admiration of later generations of civil lawyers is shown by the adage *nemo bonus iurista nisi bartolista* (no one is a good jurist unless he is a follower of Bartolus). His influence was ubiquitous in Europe, and statutes in Spain (1427/1433) and Portugal (1446) even provided that his opinions had to be followed where the Roman source texts and the Accursian gloss were silent. His works were well known in England too: the Bodleian library in Oxford, the Cotton Library (now part of the British Library), and Cambridge University, all own 15th and 16th centuries copies.

Ages, had the upper hand. His teaching was *ille qui subscribit instrumentum, si vult illud impugnare, oportet quod probet quod in subscriptione fuit deceptus* (if somebody wants his signature to be voided, he must provide evidence that he was induced to sign by fraudulent means).

We must therefore adopt an objective perspective, and rely on the file only. In my personal opinion we have only one choice: information that is not in the portions of the file that, as the typical layout of the format, are designed to accommodate the contents of the document, is to be denied legal value, whether they were automatically entered or not.

In a civil law context an objection is often raised. Is it correct to break up traditional notions, such as "contract" and "document", in order to satisfy contingent formal needs? My answer is a definite yes. Theoretical notions are not atemporal concepts, but tools heavily intertwined with everyday reality, and sometimes need some kind of revamping in order to keep up.