























The screenshots, in Figure 7, show a virtual set that has forgotten the realistic aesthetic. The presenter is over a map of the European Union and the set is decorated with white elements and some significant icons of the EU member states. The graphics with the electoral information were drawn in 3D in real time on the studio floor. The presenter interacted with the information, and emphasised the most relevant parts of the graphs. In comparison to previous uses of digital sets, there is an improvement in the resolution of the graphics. Here the introduction of a video screen was no longer necessary to display the details of the information. Instead, the cameras simply zoomed in to the graphic that needed to be emphasised.

This set did not aim to imitate reality or to look real, and instead adopted its own iconic specificity. However, as it happened with the Eurovision Song Contest thirteen years earlier, the presenter's eyes were not directed to the virtual information embedded in the set, but towards the monitor used as reference outside the studio floor. Another issue was the navigation of the presenter. In other words, while it was technologically possible for the presenter to interact with virtual objects, there were not enough technological solutions to help him move easily and comfortably in the virtual environment.

## 6. Conclusions

In the six programmes analysed in this article the virtual set constituted a key element of the production. The virtual environment is a place where the story of the programme is developed, transformed and enriched. The Eurovision Song Contest special programme, which was produced by the Norwegian Broadcasting Corporation (NRK), offered viewers the outcome of the votes and the same time the reaction of the live audience and participants through the floating screen on the set.

In Canal 9's especial coverage of the 2003 elections, the presenter is helped by the movement of the rotating platform to navigate between the panels showing the participation data and the results of the votes in the regional elections. The panel does not have any physical support, and therefore did not try to hide the virtual nature of the set.

In 2004 TVE made a great effort to cover the wedding of the Princes of Asturias and reconstructed Madrid's Almudena Cathedral in 3D. In this way viewers received the news of the wedding from the site where the event took place. The transformation of the television studio into the Cathedral was produced in real time with a very remarkable visual result.

The work done by the BBC in the 2005 elections exemplifies the capacity of the virtual studio to determine the narrative of a television programme. The virtual set allowed the presenter to be simultaneously in the House of Commons, or Downing Street, or to walk over the map of Great Britain, showing the result of voting in 3D.

BBC News recreated a hyper-realistic stage in which the presenter interacted with the 3D graphics by pointing, directing and showing the information in real time.

Finally, the BBC's special coverage of the 2009 election exemplifies an exercise of restraint and moderation in the use of audiovisual equipment. The set only outlines some representative icons of the EU member states. The absolute protagonism is placed on the graphics with which the presenter interacts to display the information that is coming from the different countries. 3D animation television series like Pocoyo, which is produced by the Spanish company Zinkia, and commercially successful feature films, like Disney's Up, are already betting on using 3D technology based on simplicity.

In the early 1990s, the virtual studios made a constrained use of the 3D technology due to the limited capacity of the graphics cards to reproduce details. Today the 3D representation techniques are able to reproduce real spaces and objects with all their details. However, some cutting-edge audiovisual creators such as Disney, Zinkia or the BBC have started to realise that it is not necessary to always construct their stories on the basis of hyperrealism as a representation technique. Computer graphics and 3D tools are more than a vehicle to reproduce reality; they have the ability to get closer to the essence of what is represented. Simplifying the representation of a face, a landscape, or an object, allows identifying their essential features and to extract their essence. In this new concept, the aim is not realism. What is important is that the final composition is credible, represents a tangible reality and, in short, is alive.

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## 8. Notes

[1] There are attempts to make objective analysis of audiovisual products like the Index of Televisual Quality (ICT, according to its initials in Spanish) produced by the Austral University's Observatory of television. This index has been used by Vázquez (2009) to analyse children's programming in the Spanish mainstream television channels. According to this classification, the technical quality of the program accounts for 30% of the final assessment of the programme. The technical section includes the set, lighting and actual production. However, the analysis in this article is primarily descriptive and therefore will not use any quantifiable scale.

[2] Valero Sancho (2008) addresses the informative value provided by digital infographics in all newspaper genres.

[3] Although the character of the electoral programme is primarily informative, the network sees it as an opportunity to prove its prestige and for this reason deploys most of its human and technical resources to offer a coverage as good as possible (Galán, 2008). In Spain, for example, all the networks are connected to the database of the Ministry of Interior and therefore all have the information available at the same time. Thus, the added value that a network can offer is the way of presenting the data and here is where the virtual set comes into play.

[4] Pérez Martínez (2009) analyses the unprecedented impacts of Obama's victory on the media.

[5] The real-time interaction with 3D objects is an extraordinarily ambitious bet within the dynamics of the traditional work in television. In his analysis of the information content of the mainstream television channels in Spain, Soengas (2005) confirms that there is an under-utilization of the technological resources and a lack of innovative proposals in the audiovisual narratives. The technological resources are used to optimise the operational work routines, but their advantages are hardly seen in the final products.

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