
Introduction

We are pleased to launch a new issue of *Quaderns del CAC*, in which the aim was to examine a phenomenon that defines modern society, an entire system for constructing parallel realities: **Fake news, algorithms and filter bubbles**.

Fake news and manipulation of current events has always occurred, but in a world with limited communication channels, that were professionally organised and had institutionalised systems of checks and balances, the detection of falsehoods was potentially high and, when applicable, penalised in accordance with the rules on editorial responsibility. This has changed radically in the context of the networked society, in which a range of actors generate content through endless distribution channels, both public and private, not subject to such rules and free from the filter of institutionalised professional agreements, making the detection and blocking of fake news somewhat troublesome.

To manage the abundance of available content, the major platforms and social networks use selection algorithms to offer each individual a collection of content that fits their preferences, which the algorithm ascertains based on the user's digital footprint. This practice creates real filter bubbles populated by ideologically-similar people. The fake news item is constructed in a credible way on an online media that also appears credible. It is inserted into the relevant filter bubbles on the social networks, which apply algorithms so that it spreads quickly throughout all the bubbles that share interests with the fake news item's stance, often using bots to multiply the effectiveness of its viral nature.

Fake news is recorded as having the greatest success when it transcends the related filter bubbles and especially when the traditional media latch onto this and broadcast it, becoming its spokesperson and, even worse, giving it a veneer of truth due to their status as news media.

Fake news and filter bubbles become especially important in politically polarised situations, such as those recorded in the cases of Brexit or the Catalan independence process, or during electoral campaigns, as in the US or French elections.

These issues are examined in the articles included in the monographic section of the journal, launched by **Martí Petit's** article *Towards a critique of algorithmic reason. A state-of-the-art review of artificial intelligence, its influence on politics and its regulation*, in which he systematises a group of problems relating to the use of algorithms in the communications field. This greatly clarifies the nature of the threats posed to individual and collective freedoms, as well as to democracy itself, justifying the need to regulate Artificial Intelligence.

Òscar Coromina and **Adrián Padilla**, in *Analysis of disinformation regarding the referendum on 1 October detected by Maldito Buló* analyse the use of disinformation against a backdrop of polarised, contentious politics. They reveal its aims and the broadcast mechanisms associated with the format of the false information, as well as confirming the difficulty of determining its impact and real level of distribution.

In **Sara Suárez-Gonzalo's** article *Your likes, your vote? Big personal data exploitation and media manipulation in the US presidential election campaign of Donald Trump in 2016*, she examines the consequences of the improper use of personal data originating from the digital footprint created by social network users. Based on a paradigmatic case uncovered by the *Observer* and *New York Times* newspapers, which revealed the improper use of Facebook data by Cambridge Analytica with the intention of favouring a Donald Trump win, she studies the technological, legal and business background of the big data companies that enable such cases, aimed at guiding the voting decision through a microtargeting strategy.

Ana S. Cardenal, **Carol Galais**, **Joaquim Moré**, **Camilo Cristancho** and **Sílvia Majó-Vázquez** in their text, *The challenge of measuring ideological bias in written digital media*, make an original proposal for achieving a high level of automation in determining the ideological bias of the written press. By applying it to the case of two Spanish political parties (the Partido Popular and Podemos), they determine its benefits and identify its limitations.

The miscellaneous "Articles" section includes the work of **Marta Narberhaus Martínez**, *Children's news on television. Topics, information quality and audience reception of Newsround (BBC), Logo (ZDF) and Info K (TVC)*, in which she studies children's news programmes. The article provides a comparative analysis of the most emblematic public television shows from the United Kingdom, Germany and Catalonia, identifies their topics, how these are handled and their reception by their respective child audiences.

Aida Martori Muntsant, in her article *Betevé: from hyperlocal television to transmedia? An analysis of the evolution*, studies the trajectory of Barcelona's local television channel, an innovative experiment in local communication, at various stages of its history up to its present chapter. She considers the challenges of finding a place for local media in the transmedia age.

Sara Rovira-Esteva and **Irene Tor-Carroggio** in their article, *Sensory accessibility services in TV stations broadcasting in Catalan: the current situation and proposals for the future*, present a cross-section of practices implemented by the television channels that broadcast in Catalan that make it easier for people with sensory impairments to access content, as well as identifying measures for improvement.

Miquel Sañas and **Maria Gutiérrez** in their article, *Constructing a television format: the case of the Telenotícies news programme on Catalan public television (TV3)*, analyse the evolution of the successful television news format and identify the programme's characteristics at various stages of its 33 years on air. They also identify some of the major factors that explain its success.

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