



**High-Level Conference**  
**Artificial Intelligence and the Future of Journalism - Will AI take hold of the**  
**Fourth Estate?**  
11 and 12 May 2021

**Wrap-up Prof. Gustavo Cardoso, Director, Obercom**

Good afternoon,

I would like to start by sharing two brief notes with you.

Notes that have shaped the discussion we had here over the last days,

The first note is that there is a difference between digitization of journalism or “automatization of journalism” and the role of Artificial Intelligence in journalism.

They stand for different things, although we sometimes use it as a synonym.

The second note, I would like to share with you, is that we have found in the different interventions, a large agreement or similar views shared by both professionals in the newsroom, academic, public policy actors on what are the central issues on AI’s relation with journalism.

Obviously, the question that brought us here is: where does the change manifest itself when addressing AI and journalism?

As an academic I would argue that, in order to understand the impact and influence of AI in journalism, we should first acknowledge that our communication is no longer Mass Communication but Networked Communication.

That is, the communication bringing together the mediation allowed by mass and automass communication, messaging (or multimedia interpersonal communication) and social media (or one to many mediated communication) in a single network.

The implications for journalism are precisely the ones we saw address here and the reason why we are discussing them is that, from trend setters in mass communication, journalism and journalists have become to be just one among many of the shapers of mediation in everyday life communication - and people's use of mediation now tends to shape also journalism and journalists practices.

AI is an example of such shaping of communication and also a tool used to shape communication by journalism.

Second, I would argue that the changes we are here discussing are born out of a datafication of communication (that is, when we communicate it's not just the message that is content, we also produce a by-product of that communication which is data. Data produced by the sender, data produced by the receiver and data produced by the sharers of the messages).

We should also acknowledge that when giving a title with "AI" to a given conference we are, simultaneously, inviting people (inside and outside newsrooms) to confront the fears (such as those of an artificial entity assuming the role of journalist and replacing humans) and to anticipate an impossible future newsroom (where information technology is able to help the journalist exactly in the way he dreams and wishes).

Another idea to retain is that AI is profoundly human. At least as human as artificial. AI is a tool and as all tools is built and designed by humans and as, in all IT tools, AI is the product of the values of the people that have set up the questions it is aimed at solving.



Algorithms are human shaped and imbed with the values of whoever commissions them. Be it platforms, IT companies or public service and non-public service media.

Therefore, AI is as biased as its designers have set it by default. So, in journalism we need AI's that are able to embed journalistic values.

Beyond fears and anticipation of a marvelous new world of journalism there is the reality of AI at the level of a newsroom, business, public service and policy.

So, what can this conference help us to conclude? Put it differently, how to wrap up so many views and contents shared over the last day and half?

Catarina Carvalho wished me good luck yesterday, I believe I need such luck.

I need it, because the richness of contributions in all these panels makes this not an easy task, by the contrary.

So, please forgive me if what I will present will look more as my own conclusions, inspired by your words, rather than your conclusions transcribed, as if I was an automatic transcription non-artificial intelligence - something I am not and more importantly none of us is.

AI is about power.

Power given to journalists as professionals, but also power to perform journalistic roles, in all its everyday life dimensions. This is at the core of this discussion: how can AI help journalism giving it the power to shape everyday life experience of citizens?



We should acknowledge that AI is not a solution to journalism problems, nor it will solve democracy's problems.

But it can shape journalism differently and, when the right questions as to what we need AI to help us do are asked in a newsroom, it can help make the difference.

Public policy and media business decisions must not repeat the same mistakes as the ones previously made in the late years of the past century and first decade of the 21<sup>st</sup> Century.

That is, not to repeat the same errors made in media business with the early dissemination of the Internet under the unwritten rule “spend, invest and buy internet tools and change strategies first, in order not to lose the train leading to the future and only later ask, exactly for are we doing this?”

So, if we were to write “The Artificial intelligence ‘laws’ for journalism” in accordance with the views, hopes, fears and questions expressed in this panels, how should it look like?

That is the following exercise I will share with you over the next few minutes in this “wrap up/conference conclusions”

Let's start with the seven, up until now, unwritten “laws” on AI and journalism.

1. The first law of Artificial Intelligence in journalism, is the need to implement an adjustment between the generic ideas about AI potential and the potential reality of AI in newsrooms.
2. AI in journalism must start with a question: when does it actually help to have AI and machine learning in a newsroom? Only such questioning can identify the problem to be solved vs. buying solutions for non-identified problems.

3. Non-Proprietary AI Technologies give better opportunities and power to newsrooms than proprietary ones.
4. AI should be aimed at liberating journalists from repetitive tasks (automatization of tools).
5. Experimentation of AI in newsrooms allows journalists to understand the possibilities of technology.
6. AI automatizes tasks, but human training of algorithms is at the core of a successful integration of such tools in journalism
7. The design of AI for journalism must be the product of the mash up of the cultures of IT engineering with journalistic cultures. Only that will allow the meeting of what tech companies want to offer with what news media needs and wants.

But, beyond the “laws” expressed here, where do we find today AI in journalism?

The importance of giving an answer to this question lays on the fact that such listing allows us to understand how in everyday newsrooms journalism routines are shaping AI and how journalistic cultures normalize AI as part of journalism itself.

But first one possible empirical definition of applicability of Artificial intelligence to journalism is that: If something can fit in a spreadsheet, then there is potential for AI to help journalism.

Curiously the item in this list about where can we find AI in journalism are also seven:

1. AI is today both to have news written and also automatic translation, tools to help identify sources, etc.
2. AI is also its use in specific journalistic topics such as elections, that allow multilayer and multidimensional approaches.
3. AI is the language spoken and written in translations and subtitling, although as a prerequisite implies the existence of language libraries - therefore, not all languages are equal in their opportunities to implement AI.
4. AI is to help identifying disinformation, through verification process such as automatic reverse image search, speeding up processes and freeing out human resources.
5. AI is also sports and financial journalism and the challenge to see if AI can also be applied to other type of journalisms.
6. AI is still, both by technological constraints but also cultural constraints, an undelivered promise in automatic article writing (even if it works for some subsets of journalisms).
7. AI is also tools in helping journalism research, dissemination and engaging with audiences

Last but not the least, the most important questions to be asked are those for which we do not yet have answers, but that must be defined as a problem, if we wish to find a solution.

Because we must not forget that there are no solutions for a problem which has not yet been defined as such.

The first set of questions that need to be answered relate to the uncertainty on ethics of Artificial intelligence. Those range from the need to identify for the audiences who produced it, that is, if news is algorithmic based or human based. But it also the domain of ethics if and when can AI be used to verify sources and what are those limits.

A second set of questions focuses on ownership and copyright over the algorithmic based news. Who owns the content produced by AI? Because AI is not an independent third party, it might be owned by someone else or not or just have rules of use as an App has.

A third set of questions is based around the need to understand how it is possible to promote an independent agenda in AI for journalism. That is, an agenda to be promoted by editors able to make the right questions that need to be answered by IT teams.

Another set of questioning revolves around the spatiality of data. That is, data feeds are usually available at national level but not at local level. But journalism is both based at the local, regional and national.

Also, of importance is to question how and what type of serendipity in journalism do we wish to keep in a journalism that integrates AI tools. Therefore, serendipity must be a variable to take it into account when designing algorithms.

In relation with this last point, there is also the need to define which values of journalism do we wish to embed in AI and its algorithms.

Artificial Intelligence uses data from users' behaviors as a tool to help journalists makes their work relevant for their audiences - but how do we tackle the audiences that are not present in journalism as we know it today (specifically younger generations)? Can AI help in that process or what we need first is innovation in journalism and then AI as a tool to help in that process?

And one last question, if people choose digital mobile over other types of mediation how can AI help us drive the approach between digital mobile journalism and those audiences that are still entrenched in paper and traditional TV and radio sets?



As Umberto Eco reminded us, communication is to place an idea in someone else's mind, that was what you did with me and, hopefully, I was able to do the same with you.

Gustavo Cardoso