**The Virtual SciCon 2.0 Conference Series | Transcript**

**Florencia Coelho, Christina Elmer und Patricia Ventura Pocino: AI – the journalist's friend or foe?**

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**Mod.: Alexander Mäder**

**Alexander Mäder:** So welcome, dear colleagues. Good morning to Argentina. Good afternoon to Germany. Spain. And all other countries that might be represented here. A welcome to a new edition of the SciCon lectures. Our topic today is artificial intelligence. And whether it's a friend or a foe to journalism or to put it in less dramatic terms, what use cases we can come up with to employ artificial intelligence in the newsrooms. What we have to consider when doing so and where we have to be cautious. As I'm pretty sure that all of you have discussed this topic on at least 1 or 2 occasions, I think we can agree that these artificial intelligence tools are not going to go away. They are very good at imitating writing styles. They make their text sound like they have been written by an expert, which may even fool people into believing that everything they say is true. And that's something we have learned already. Those artificial intelligence tools are not designed for truth. So we will need to do good old fact checking before publishing any text they might provide. And today, we have three distinguished guests from around the world to tell us about their perspectives on journalism and artificial intelligence. First, we have Flor Coelho. She's from Buenos Aires, Argentina. She works in the data team of the newspaper La Nacion.

**Alexander Mäder:** And she will be the first to give a talk. She used to be a lawyer a long time ago, but then started to freelance and consult and in the end joined the newsroom of a newspaper. And in the last couple of years, she has been interested in the opportunities that artificial intelligence provides to journalism. After Flor, Christina Elmer will give a talk. Christina used to work as a data journalist for many years, and her last position was deputy head of the editorial development team at the German magazine Der Spiegel. But now she is a professor for data journalism at the Technical University in Dortmund. And was a journalist in residence at Cyber Valley, which is an institution close to my hometown, Stuttgart, and Tübingen, where institutes and companies are trying to push artificial intelligence forward. And the third talk will be by Patricia Ventura. She's an associate professor at the University of Barcelona in Spain. Her research topics are the ethics and the regulation of artificial intelligence. And she was one of the authors of a report called *Algorithms in the Newsroom*, which was published by the Catalan Information Council. So these three guests will give presentations each of about ten minutes. I will remind you, once you approach the ten

minutes, a ten minute time mark and afterwards, I hope that we will have some time for discussion with all the other guests involved. So, for your first slide please.

**Florencia Coelho:** Yes, Yes. And I see the ugly black bar here. Okay. So maybe I should update this graphic. And instead of putting artificial intelligence, use ChatGPT. But hi all. I can move my slides. Wait a minute. Yes, I live in Argentina, South America, and I spent a year at the JSK Journalism Fellowship at Stanford and learning about AI challenges and opportunities. This is part of the team, the data team in Buenos Aires of La Nacion. And, well, the organizer sent us some questions and I put some of my thoughts about this. What role does AI already play in journalism? I usually classify it in three, like as the object of investigative reporting. While you do watchdog journalism of algorithms deployed by government or corporations, then as a tool for producing original editorial content and solutions to optimize newsroom processes that can vary from news gathering, analytics, production and distribution. There are more to add to this list. But I think that this is a clear summary. So artificial intelligence has different sub domains. I think we have experimented with machine learning, natural language processing, vision and speech that want to imitate some human abilities. So in 2016 we have tested with speech to text and trying to analyze 40,000 phone interceptions that were investigated by the general prosecutor that was found dead, like suicide, the day before accusing our president in National Congress. It was an investigation on a terrorist attack in Buenos Aires.

**Florencia Coelho:** So. We couldn't really use the speech to take a solution. We were working with two developers from OpenNews. I don't know if you remember the night Mozilla OpenNews program that they embedded developers in newsrooms. So they tried, but we finally had to listen to all the audios to publish our investigation. And we have worked with vision, image recognition and two projects that were involved with trying to detect solar farms and to monitor government programs on renewable energies and with satellite imagery. And the other we used computer vision and image recognition to analyze documents that are issued during the electoral day when we have elections for president or Congress renewals. So there we use also computer vision to detect information. If vital information was missing from these documents that the citizens that work in each in each voting stations have to complete by the end of the election day. And I'm publishing here, I'm putting here all the links to the behind the scenes and communications. We also experimented with natural language processing that is involved with texts. It was kind of datatainment how we can learn these tools without a deadline. And it was interesting to analyze lyrics of trap music that is very popular here in Argentina. And so, um, like it took us like seven months is like instead of investigating corruption, we are investigating like, I know we are super privileged to be allowed time to, to experiment with these tools that then if one day we have like a WikiLeaks, we have already trained the muscle of how to work in Spanish when most of libraries are in English.

**Florencia Coelho:** So this is what we published and it has been a learning experience for the team. And so there we have used like topic modeling, named entity recognition to try to analyze this music, what they talk about. And so, it was cool. It's a nice multimedia package and for us was a very good learning experience. And um, I

attended Perugia conference online and I was able to see a presentation by Nicholas Diakopoulos. He's based at Northwestern University and I found two examples of what he's doing with a site, a science, journalism and technology journalism. So in case you don't know it, I just want to point it out to you. Like he's working on the newsworthiness of research papers. Like they analyzed a summary of abstracts and tried to look for angles that could be interesting for a journalist. This using prompting the ChatGPT solution for this and so they have trained the model with 55 abstracts and, trying to discover if that paper has a newsworthiness like, um, it will be interesting to lots of people. For good or bad. The research output, if it's contemporary, if there is the information, is suitable for controversy.

**Florencia Coelho:** So, I'm leaving here the links and you can access the presentation. His presentation is online and I think you can contact him because he wants to experiment on this generative AI in the newsroom and he wants to partner with different journalists around the world to test these tools. And so think if you are in science, you should be a perfect match to work together with Nicholas. And he also showed another example for science journalism that, instead of the paper summarization, to try to adapt it to make the technical terms more easy language for journalists, for example, or general audience. So he's excited about this because ChatGPT is more of a language machine. No, a better than maybe a discovery and fact generator tool. So I leave you this in case you haven't seen it, but he sees a good opportunity for scientific journalists. So another question: What influence does it have on reporting on journalistic formats? I think that can help for impossible projects, the ones that you are not going to do if you didn't have these tools to help. Um, also for me, it's very important that the work, collaboration, internal and external with other newsrooms, but also with software companies, universities, academia, because it's not a solo job. And some examples of, of formats like audio, video, transcription, translation, summarization, image recognition. Really you can have most of content in,

**Florencia Coelho:** I can't find the words in English, but related with you can work with the AI, with the different type of formats. And I chose this example that I really like is an NGO that is investigating deforestation and they are using very old like cell phones. They put a solar panel and to maintain it connected and they have trained the model with audio that  detects if there is a chainsaw or a, um, chopping of trees, noise or if there is a track noise. And so it will send an alert to an indigenous people that live very close and they will come and then alert this NGO. So, this would be like an impossible project. And we are using like audio listening, training the model to detect special noises and then give alerts to try to stop this illegal deforestation, also animal poaching. And another word that I mentioned is collaboration, collaboration, collaboration. So, I was part also with Christina Elmer, we are both in this photograph of the journalism CoLab organized by LSC for two years in a row. And so I will show one example that we have worked there, but also then adapted to Spanish. And what challenges does it pose in dealing with ethical issues? Generative copyright issues. Disclaimer to Audience Diversity Inclusion. I'm including some slides from a recent, just published report from the Human Centered AI Institute at Stanford, how they are submitting AI. And we have worked with bias in newsrooms with this new media. And we have analyzed the gender gap tracker with natural language processing. Also

images to try how these models were biased and not counting as women, people of colour, women, old, old and of um, darker skin. We have worked on this to have a gender gap detector for our newsroom, and we also have work in diversity and inclusion. We used to have a trailer where you can check how you talk about this community, which words. And so now we have made like a Google search or a password suggester that if you have a doubt of one word, how you should refer it with respect to that type of community could be handicapped people, a sexual identity, mental health.

**Florencia Coelho:** And we have a predictive, a predictive solution for social media headlines that includes this diversity and inclusion in enhancement for our newsroom. And to close like what does it mean for future journalism? Like lots of deep fakes, maybe a good opportunity for media to be the ones that say this is fake? No. So people will turn here and it's very important, the alphabetization of people, citizens about this and the environment also is affected by journalism. And look at how it is emitting lots of, um, gas and carbon gases. And then there are countries publishing laws regarding this. So, this is important, too, for democracy. Know that different Congresses in the world start to legislate about this. And this is my final slide or things that are happening like the godfather of AI quit Google because he's afraid of the result of the technology he has been working on for long years, can be used by the bad guys or the Guardian. Um, alerting that ChatGPT is pointing to articles that they haven't ever published. And here I am, I'm finished.

**Alexander Mäder:** Okay. Thank you very much, Flor, for this big collection of very different and interesting use cases for artificial intelligence. We will have the question and answer and discussion session at the end after all the talks. But if you want to ask a question, you can either raise your hand like this afterwards in the Q&A session or just post your question in the chat and I will read it to Flor and Christina and Patricia. So now it's Christina's turn.

**Christina Elmer:** Yes. Thanks a lot. I will also share my screen. The other one. And also the presentation. Yeah. Thank you so much, Flor, for all these interesting and really great use cases. I think there are some parts of my presentation that I can skip now and this will keep me within the five to ten minutes hopefully. Um, I named my presentation Assisting Parrots 2.0 because I think the parrot topic will stay. We won't have like, yeah, mind-like machines but in the end maybe they will be becoming much smarter than they are at the moment right now. Um, for the start, I'd like to zoom out a little bit because I think AI is often called a hybrid now and I think this is absolutely true. But in the end we see even in the Gartner Hype Cycle right now that there are even a few AI applications that are of course also beyond the hype status and are already reaching the so-called plateau of productivity already. So yeah, given that journalism sometimes has its problems with adapting to innovations and new technologies quickly, and I think this is, yeah, this can be explained in a meaningful way. Of course, we should deal with these topics in both regards, of course. Yeah. First of all, newsrooms should employ a thoughtful joy and experimentation on the one hand and of course have to critically observe the developments on the other hand to put it

together. This is the watchdog role that I've been talking about. Of course, then investigations, as we've seen some examples in the presentation already byFlor.

**Christina Elmer:** So, to be able to use and really analyze extensive data sets, leaks, for example, but also satellite images and so on, we have to use these tools otherwise these projects won't be possible. Then verification is a topic, of course, but also products and services we can use and should use, as I would say, AI driven tools to do meaningful personalizations and to reach diverse target groups with their needs a bit better than we do today. And in the end, of course, I would certainly say we have to develop these emerging technologies and try to remain as independent as we can or as media companies can of tech giants, for example, that are also working with these models and that are deploying them and selling the access to them. There are already really many fields. We've seen some of them already where AI driven systems are active. So far in newsrooms, for example, this whole investigations and research topic archives are quite important, I would say as well. For example, the WDR archive that you can see at the screenshot on the right side to be able to really use those multimedia contents in the day to day news production is really valuable for those companies, for example. But also when it comes to leaks. The other screenshot shows the Neo4j's tool that is used in investigating leak datasets where you can just find out identities and how they are connected with each other.

**Christina Elmer:** This is quite helpful in those datasets. Then there is this whole production side where speech to text like transcription services and also text to speech and translation tools are used quite a lot already. And I think this has been quite easy even for journalists in newsrooms to find their way to these services because otherwise, yeah, transcription is really painful. But of course, also the moderation of user comments is a huge field that is already supported by AI driven tools. Then the distribution and monetization part. And there are already some, some fast developments in these fields maybe because these fields have a greater distance to the content side, for example. So you can experiment a bit better and you don't have to be that fact based in the end. And a churn prevention model is of course something different than an article-writing generative AI bot. Speaking of generative AI, there are already some use cases that are quite interesting. I would say. For example, the BuzzFeed as told to buzzy AI bot. It is obviously writing travel articles and it is obviously also edited, which is important. And yeah, so far I would say these articles are not that exciting in journalistic regards. But yeah, they, they seem to be solid content and we should of course also have an eye on BuzzFeed because they already told us that they will develop AI driven quiz formats, for example, where you can have personalized quizzes. And this might also be an interesting use case for other newsrooms as well.

**Christina Elmer:** Then there has been the other experiment by CNET earlier this year and I think you can say that this had totally gone wrong. Um, they published AI generated articles and they have all also not been edited so and also not been verified or fact checked. So, in the end there were many errors in these service articles and it was also not that transparent that yeah, no humans have been involved in writing those articles, so they now have put out that information. At the top of these articles you can

see this on the left side, but initially, it was only written by CNET money stuff and you could not really trust the content. So this gave us a really great impression on what not to do. And there is one great example in dealing with generative AI done by Bloomberg. They have not only published content but also scientific research on how to train your own generative AI model. This is called BloombergGPT. And on the right side you can see the table of all the datasets with which it is trained. And the one half of I think of all the tokens, yeah, is the same that every other AI tool has been trained with as well. So all the contents from GitHub and archive and whatnot. But the other half is interesting. This comes from the new Bloomberg datasets, from the Bloomberg terminal, for example, but also from the archive and press clippings and so on.

**Christina Elmer:** So now they are able to train this model to specific tasks that they have to solve in their newsroom. For example, headline generation, or another great task is how to access the Bloomberg terminal because obviously I didn't know that you have to. You can't really ask it questions. You have to learn a specific language like to interact with this terminal. So to sum it up, I would say that the most promising application areas right now are first of all, knowledge management because there are so many great articles and pieces of knowledge that we produce every day in the newsrooms and that are not used afterwards at all. And we could really deal with these resources in a more sustainable way. I would say then generative AI models. Sorry, as there are more and more combinations of AI, of generative AI and models that are connected to databases. For example, you can see this in the Bing search, for example, or in the Wolfram Alpha plugin that GPT-4 offers. Then, suddenly the facts come in and yeah, these could be really interesting assistant systems in the end. Also in newsrooms, I would say. And also I would think that synthetic media could be a really interesting use case as well for media companies in the future. Um, just to sum up, yeah, a few obstacles, tensions and challenges. I think there are so many topics that you could really dive into extensively here, but I think there is this technology side of course, where newsrooms need the developers and capacities to really work on I would hope

**Christina Elmer:** their own AI models like Bloomberg, for example, but also we would need much more metadata on journalistic contents. And given the actual state, this is not that easy. Then there's also the culture topic I already talked about. Skills are quite important. Um, so algorithmic and data literacy really help to also bring in these new technologies. Transparency is important because we don't really already know how to make these production processes transparent in an understandable way. We need more research on that and it's important to operationalize quality criteria and journalistic values to these systems so that they can, in the end, understand what relevant content is, what journalistic quality means to be able to have, for example, good recommendations, um, to try to. Yeah, yeah, I will, yeah. Have a few slides, but not many. Just try to imagine what will happen in the future. I thought, okay, I don't really know. And why is that the case? I don't know how the AI literacy develops and how this really will be in ten years in society. And also the acceptance, because we don't know how this will go on. And I mean, on the lower half of this scheme is not that joyful. I mean then we would have a low literacy and maybe hardly use AI tools or an

unconscious use because tech giants will use them anyway, or an unreflected use which will be, I think, really not a good idea for society.

**Christina Elmer:** And in the upper half this could be more regulated use of AI driven tools and maybe even regionalized because you will have different regulatory systems in different parts of the world, which seems a bit crazy as an idea, but let's see. I mean, the EU wants to go forward in this regard. Um, we don't know with which measures right now, but yeah, and what I hope for would be a status in which we can really do controlled and thoughtful experiments with many different AI systems. But given that the literacy is high and I want to close with some contributions that we can really provide in the journalism education field that I'm responsible for right now. So, first of all, we try to foster data digital and statistical literacy. Sorry. Um, for example, with interdisciplinary seminars on generative models, algorithmic accountability reporting and so on. This is quite great as a learning field for everyone involved. Then we have to prepare our journalistic students to be hosts for debates on AI acceptance connected to constructive journalism. I think we have to, to develop an understanding that we have to foster and host these debates and how to do it. And then, of course, reflective skills are also absolutely important at this stage. So sorry for being a bit too long but thank you so much.

**Alexander Mäder:** Thank you to Christina for these extra insights and your differentiation on how the future might look. Now we turn to Patricia. Please. The floor is yours.

**Patricia Ventura Pocino:** Yes. Okay. So first of all, thank you so much for inviting me here and for giving me the opportunity to share our research. A little correction. I'm not an Associate professor at the Universidad de Barcelona. I'm a PhD in Media communication and culture in Universidad Autonoma de Barcelona. Just a little detail for my university. Okay, so I'm going to talk about ethics and journalism. I'm going to try. That's, that's the center of our research and precisely about this report that was published by the Catalan Media Council at the beginning of 2022 last year in English. AI, artificial intelligence, challenges journalism in different ways. Journalism, we believe, has to be able to report rigorously about artificial intelligence, has to be able to monitor their application auditing algorithms and to be consequent should be able to make a responsible adoption of artificial intelligence. All those three lines of actions are connected by the need of something that has been already mentioned by Flor and Christina. The need, absolute need for literacy in journalism. All those three lines of action are also interdependent in the sense that if we have to monitor their application and report about AI rigorously, therefore we should be able to make responsible adoption and therefore have legitimacy to monitor it.

**Patricia Ventura Pocino:** We believe that by the responsible adoption of AI, we will contribute to generate trust and we will contribute as well for a healthy information ecosystem. AI is present in the newsrooms from a long time ago, especially in the main media. But it's true that in the last years, we are using it more and more. AI is present through all the value chain from news gathering, production and distribution. Today we ask things like what's newsworthy with those tools that send us alerts, alerts about

topics that people talk about online? What kind of format should we use or what title do we have to choose with those testing tools? Or even what content should we highlight with those recommendations or with recommended widgets or personalization applications? All those questions are part of the core of the editorial function of journalism. The trend is very clear in Spain, and we know already all over the world we're going to use it more and more. In this report we made, we made a state of the art here in in Catalonia. So, if you want to go deeper, I think my colleagues, Christina and Flor, they made a very good state of the art of the use case and very interesting use cases.

**Patricia Ventura Pocino:** But if you want to go deeper and some in more detailed cases in our report, we go deeper in this. How do we approach this complexity for doing this analysis from an ethical point of view, we try to identify which tools or practices with AI raise more concerns and which dilemmas emerge and which of the main principles of journalistic ethics it affects. Of course, we made a literature analysis for making the report, and we asked journalists from all over Spain what concerns they had or what topics raise the most concerns for them in front of the adoption of AI in media. And that's what they told us. Journalists are worried because an eventual loss of quality of the journalism about bias, about contributing to echo chambers, also from the media, from the traditional media polarization, transparency, moral responsibility, even loss of value, dehumanization, etcetera. Then all those reflections we confront them with those main ethical journalistic values truth, fairness, freedom and responsibility. We identified those values thanks to previous research done by PhD Salvador Alcaeus, a Catalan PhD who tracked codes of ethics from around the world and identified which were the most common principles in them.

**Patricia Ventura Pocino:** Reflections with an expert committee, multidisciplinary from philosophers we recounted with an ethical of eye observatory in Catalonia, specialists in journalism, innovation, computational journalism. We had the chance to count on Nicholas Diakopoulos, Charlie Beckett, who for sure you all know. And then we could count with the main media in Catalonia for this reflection. Then after all this, we identify seven key aspects from which the recommendations that are present in this this report because it ends with some recommendations. And I'm going to synthesize all these topics that we analyzed and I'm going to share the recommendations for an ethical adoption of AI. So those are the recommendations. You will find them in the page 34 of this report. I'm going to make this synthesis now. Okay. We found issues related to automated content as it has already been mentioned here. It is important that there is transparency in communicating when artificial intelligence is in operation. It doesn't mean that we have to communicate like if we use an artificial intelligence to make a transcription or a change of format text to audio, audio to text. But it is important to communicate clearly when we generate, for example, synthetic images or text, among other things, because I act in the will, will oblige to communicate it. Um, it's important as well to monitor this automated content because it makes errors and responsibility still remains in with the journalists.

**Patricia Ventura Pocino:** So, we have to know what we, what we are publishing. Uh, for this accountability, you know, about the personalization raised a lot of discussion

because it conflicts with the main journalistic function which is providing common ground. If we personalized extremely, then we lose this, this important communitarian function. So it's all in the balance. And I think it's a lot of common sense, but it's true that we have economic problems in our sector. So it's easy if you think short term to say, okay, I'm going to automate everything, I'm going to personalize because I'm going to get a lot of clicks, but we risk denaturalising what we are as well. We have to monitor that quality to avoid bias. Bias is a cross ethical problem in all applications, in all sectors. So we have to master database management in journalism issues about privacy. If we're going to use more AI, we're going to use more data. So all this data that we're going to manage, we will have to use it responsibly. We've got the general data protection laws that are an excellent tool to preserve user privacy responsibly. But we're not always doing it. Something that has been mentioned also by Christina, which is really, really important, is this awareness about the power of platforms and the threat to informative independence because they are the like the great founders of big journalistic projects and also they propose to provide tools and software and which is again balance.

**Patricia Ventura Pocino:** So other, other things in a more proactive attitude using AI to, to strengthen the values of journalism. And I liked very much the examples for export. Before I didn't know that in La Nacion they use t these predictive headlines and these tools for avoiding gender gap and inclusion which are clear examples of how to use AI for reinforcing strict application of the values of journalism. You know also the need of training, technical training for journalists so we can make decisions about how to use those tools, and ethical and editorial training for the technical staff so we can dialogue and work together better. And finally, I'm going to finish with this quality goes through valuing the human factor. What does it mean? That's my last reflection. We are living moments in times in the human history that makes us ask ourselves what makes us human, really? And we think in journalism we should be able to bring this question to our ground and ask ourselves, how can the human factor help differentiate the journalistic product too.

**Patricia Ventura Pocino:** We, the humans, are able to think. We think in terms why do people need to know this machine can't think in these terms. The machine can't think in terms of what was an uncomfortable question that I should ask now. And of course from the ethical point of view, artificial intelligence or the machine doesn't have any kind of moral criterion. So it can't contextualize at all the facts. That's our human strengths. Today, perhaps more than ever, we must resort to the great ethical values of journalism and thus be able to put this technology at the service of our public service mission. Thank you very much.

**Alexander Mäder:** Okay. Thank you to Patricia for these ethical considerations and explaining how you arrived at your recommendations. We now have time to discuss these topics and we already have a first question by Franco Zotta in the chat and Flor has already responded. Franco, would you like to add to your question? Not immediately.

**Alexander Mäder:** Oh, I see. Sorry. Um, so we will come back to you a bit later. If you want to ask a question, raise your hand digitally or post it in the chat. Meanwhile, I was intending to ask because you showed these many use cases and you said one of the main motivations for using artificial intelligence is to tackle impossible projects. So that seems to me and I wonder whether this interpretation is correct, that artificial intelligence is something for big teams, for large newsrooms who have a lot of resources. And I was wondering, what does it have in store for smaller newsrooms?

**Florencia Coelho:** No, not for large rooms. It can go I, I, I know examples for small rooms, but they do good collaborations now to try to get the data processing or the computing coding more powerful. So when I'm talking about the impossible projects are because you have massive amount of data to process. So a million files of medical reports or that kind of project that then the AI to process 7 million images of satellite imagery of Argentina. You can do it during summer and students working at your newsroom, they wouldn't be able to process that kind of imagery. No. To try to detect solar farms and so that's why we refer to impossible. But with the right collaborations, I think that very small newsrooms can definitely work with the AI, but you need collaboration and there are some grants that you can apply for, like the Pulitzer Center has grants for accountability, like algorithm accountability, and also have machine learning grants. And like for the project with the diversity and inclusion in terms of vocabulary, we have used money from the Google Initiative to allow our team to work on a project for like more than almost a year. And so maybe you need definitely support or collaboration for the satellite imagery. We didn't have the knowledge, technical knowledge at La Nacion and we made a collaboration with a software company and they didn't charge anything. They wanted to be published in La Nacion which is a major national newspaper. And then for revising the telegrams, the electoral telegrams, we made another collaboration with a software factory that charges La Nation for another project. But for this, their technical staff work for free because they wanted to test this technical solution of image recognition and they wanted to give time for a cost. That could be election transparency. So if you have the correct project, you can get help maybe without money. No. So okay.

**Alexander Mäder:** I see. Thank you very much for these tips and I have a somewhat similar question to Christina. You mentioned in your future scenarios you had this dimension of AI literacy. How do journalists, especially journalists who are too old to become students at your university, become literate?

**Christina Elmer:** This is a good question because I think we need more programs that everyone can really attend in the newsrooms and they have to set up their own. Of course, I think the best ones are those that are connected to real projects in the newsrooms. So maybe it would even be helpful to have an experimentation lab in newsrooms where you could just try out and test new tools, for example, just to get used to working with them.

**Alexander Mäder:** Like Flor did with the datatainment, the music analysis.

**Christina Elmer:** Yeah, yeah, yeah. To, to really start small and to learn how to collaborate with AI driven tools because I had one comic strip in the presentation out of this nice study how humans judge machines and this really showed that we expect yeah total accuracy from machines and also from artificial intelligence systems. And we have to learn that they of course also make mistakes. What questions we have to ask them how to find out biases, for example. Um, and these are all skills in these hybrid systems that we have to adapt.

**Alexander Mäder:** Yeah. Okay. Thank you. I see Franco is back. Franco. Um,Flor. Try to answer your question in the chat, but maybe you would like to still follow up.

**Florencia Coelho:** The question was for me?

**Alexander Mäder:** I'm not sure.

**Florencia Coelho:** No, I think he should. For everyone. Like how probably do you think it is that journalism will become a repair store for impressive and powerful products with accuracy problems like fact checking, service provider for applications and similar and won't make many areas obsolete. That journalism currently counts as its core cortex. Yes and yes. I think, I hope that with the deep fakes a people turn to media or fact checking sites and to get to know if it's true or not, something that is around the web or social media. And definitely there are some tasks that are becoming obsolete, like transcribing interviews, that's obsolete. No, you can like or maybe you can get the transcriptions of a conference. Like for example, I use the automated transcription of Coppola's presentation in Perugia. So I had the video, but also when the video finishes, you can download the transcripts a couple of hours later and use that as text to analyze. So I haven't been like listening and typing what Nick Diakopoulos said. Now for providing you this science journalism example. I know if I have answered, I hope people come to media to find if it's true or not. And I hope that no president with nuclear powers press a button that can lead to the server because he just saw a deepfake video and has been offended by maybe Biden's or another president's declarations and like. I know. Maybe we have to have alphabetization for our audience, like show them how easy it is to make this and to be careful because you sometimes you don't believe it. That is fake. Okay.

**Alexander Mäder:** Thank you. All right. And I would have a question forPatrícia, because one thing I noted is your first recommendation dealt with automated content and flow. I think we didn't talk about automated content at all. And Christina mentioned especially one bad example, the example of CNET, but still regulating labeling. Automated content is a topic a lot of journalists are talking about. Do you think this will become a pressing issue or was it just the first recommendation because you wanted to check it and come to more important things afterwards?

**Patricia Ventura Pocino:** A good question. Actually, when we did this report, it was not the topic at all. We know that automation is in operation in the media from a long time ago with those tools that automate content for SEO sometimes and like kind of very plain content about sports results and metal, you know, but now with chatbot and

those generative tools has become the topic and the recommendation is the same. If we attach to our values, if we need trust, our information ecosystem needs healthy information. And I think this is part of our mission. So if we need trust and we want to contribute to this healthy ecosystem, we should be transparent, but also remember that the law, the law in Europe will apply to like to mark the video and video for sure. Images for sure. Here in Catalonia, the national TV has a watermark in all the text generated and news and anybody obliged them to do it. But it's a good exercise of transparency and it's also a good protection for eventual errors because it's the way that you say, okay, that we didn't generate this. So it's a good protection to see. I would like to add a little thing about the question before, because I think it's important when you asked how do or maybe older journalists or people that are not now in university, how to train in AI here in Catalonia. I myself actually developed a course for the journalists' association. And it was full. It generated a lot of interest for the journalists that are currently working in media. And it has been a good experience that maybe in other countries would be also a good initiative. And so I'm in an international forum, so I would like to share this very good experience that we had here.

**Alexander Mäder:** Okay. Thank you. And maybe a question. I'm not sure who would like to answer. One thought I have is, ok, we label automatically generated texts and images. So for the reasons you have just mentioned. But I could imagine a future where if you write a standard article or have a general nondescript photo everyone will believe it has been generated automatically. If you want to prove to the audience that it's original reporting, you will have to find ways to be better than the machines are. Um, so having just an everyday news report based on 1 or 2 press releases and a phone call will not be enough to really satisfy the audience. So the bar for good reporting is actually raised. Could that be a way things will be going or will it deteriorate? What do you think?

**Patricia Ventura Pocino:** I'm going to leave it to answer to my colleagues, but I just want to say a very short, short sentence that t you will find in the report that answers very well. And this question is, if machines can do basic journalism, then anyone with a machine can do that. Journalism? No.

**Alexander Mäder:** All right.

**Florencia Coelho:** I was talking yesterday with my daughter. She's studying for law school and she had to make an essay on AI and a contracts solution for lawyers. No. And so we were talking about how, like basic due diligence of mergers and acquisitions and different clauses for contracts will be provided by AI now. So which is the role for the lawyer? No. And I think that the same happens with the journalists. Like there are several tasks that will be done better by AI but of course we will have to reinvent ourselves. But nobody will do journalism like the people that have the professional aim to be a journalist will do it. And you, the intelligent people with civic aims do so. I think we don't know yet. What are our new skills? There will be. But like now. Maybe good writing as generative AI is a learning like language machine would be some like normal, not like I'm not a good writer, so maybe one day I don't write a lot for La Nacion. I'm more a researcher, but like being a good writer is going to be like more easy for the

reporters that are not good writers, but then all the connections, your mental connections or your contacts, how you how you work with your sources and the trust they get for you, that is very difficult.

**Florencia Coelho:** That will happen with a machine. No. So we have to think what are the strengths of this profession to be performed by a human and try to get the best of that know and complement with AI on the other I don't know if I was clear but I'm telling the same to my daughter yesterday night. Like it's like we will have to see. We leave to the machines, which are our what is our uniqueness as journalists, our investigative journalists or other reporting beats to complement? I don't know. I don't know if we're clear. I don't have the answer. But I think that we are still rolling like in a wave. And we haven't arrived to the beach yet. Okay.

**Christina Elmer:** Maybe we will never arrive at the beach. Um, I would second what you said. And also I also think that maybe we won't have a watermark for fakes in the end, but a watermark for good journalism because, yeah, in the end, maybe everyone just won't trust content from the internet anymore in any case. And then I see a cross reference to the user needs model, for example, because the new user needs that are obviously quite important for audiences and that are not yet that covered by newsrooms are really the connection towards or between readers and the audiences and the content like help me connect me to my, um, yeah, to my neighborhood, for example, or to other people. So it's not about the update needs or inform me. Um, and thus I would say that both lead into the same direction we have to, to use our empathy. And this is something that, machines won't ever have. I would say to, to really find out where those connections may be and how we can really tell the stories that people need and this this won't be achieved by machines in the end. And I think this whole update me and inform me um yeah business might shift more and more towards machines. Could be.

**Alexander Mäder:** Okay. Thank you very much. Our time is basically up, but I would like to ask all three of our experts one final question, namely, what's the one thing that journalists really need to understand about artificial intelligence and are failing to do so, so far? Patricia, would you like to start? Oh, flooror F is okay. Flor, please.

**Florencia Coelho:** I think that statistics is one key word. Like AI is statistics. Like ChatGPT is like large language model, but is statistical text processor or image. And so that's like the basic knowledge. And the other is collaboration. Like to audit algorithms deployed by government or corporations. You will need collaborations to use these tools you at least will have like ready to use a software for like transcribing or like you always will need a collaboration with some with someone to do this kind of reporting. And I think that the bad news is like climate change, like all journalists will have to know the basics of AI because it's affecting all the bits of journalism. And so they will have to try to understand what is happening and what is happening with the labour force that is going to be replaced. We need public policies to try to adapt these people to other markets or other professions. For example, I have an example in La Nacion, we were in another building where we have a large library and we have a librarian. When we moved, we gave away way all those books.

**Florencia Coelho:** And this girl, like, was jobless because there was no more library. And she came to the data team because her skills are super useful for a data team. How to classify information in spreadsheets. Like her, the thought of thinking the same will have to do with people whose jobs are going to be replaced and try to like how you can now work in this data. In a word, no or a word like. And you don't need to be the most intelligent person to do that. Like, there's lots of work that can be done now. People in Argentina, like are in when you pay, when you are running with your car, don't know how to say that. Now when you pay like a poll to go at all, notice all replaced by machines but that people can be classifying data or identifying images of our solution but someone has to take care of that. And as journalists, we should talk about this in editorials, in opinion, in different sectors like we will have to alphabetize ourselves.

**Alexander Mäder:** Okay, Thank you very much. A lot of things that journalism really needs to understand. What about you, Patricia? What's the one thing?

**Patricia Ventura Pocino:** Totally. Yeah, I'm I think the most important thing to understand are the limits of AI to identify the limits of AI. That's our, that's actually our research. Um, knowing the limits, we will be able to acquire this important critical point of view. We have to know what is AI and be able to, to monitor it, to monitor, monitor those users, to inform the citizenship, the society rigorously. As I said at the beginning, because we have a responsibility also here of um, for the society to, to like to create a critical society. So first of all, we have to understand it and acquire this critical point of view from this ethical perspective of the limits of AI and most of all, don't fall in this AI hype. That I would say.

**Lynda Lich-Knight:** Think Alexander has frozen. So maybe if you'd like to go ahead.

**Christina Elmer:** Yeah, I think I have to. Okay. One short aspect at the end, I would add that it's so important not to think of AI as one thing. So it's not the AI that does X, Y and Z, but there are so many different AI systems that are trained in specific ways with specific metadata sets, with goals and procedures. And this is something that we all have to investigate and ask, are those tech giants, for example, and our scientific collaborators when we are developing and working with systems. So these are so many different tools that are really specific. And sometimes I'm really wondering why we are using language that seems to be just referring to one thing. So in German it's often "die KI hat das und das gemacht", so the AI does X, Y and Z. So it's I think this is the first thing that we should try to change. And then we would be forced to use a more specific language. And maybe this would bring in some more questions that we try to solve and everyone will be smarter in the end.

**Lynda Lich-Knight:** Okay. Well, thank you very much. As we seem to have sadly lost Alexander, I will say thank you very much indeed to all three of you and for your very interesting presentations and for a very thought provoking discussion to follow. So we hope to stay in touch and look forward to further exchanges. Thank you, everyone, for participating.

**Patricia Ventura Pocino:** Thank you very much. A pleasure. Thank you. Goodbye.

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