

FUTURS FANTASTIQUES

Jeudi 9 décembre 2021

Belvédère

Marion Carré, Conférence introductive : Que peut l'art pour l'intelligence artificielle ?

Marion Carré:

I'm really happy to be here with you today. Thank you Emmanuelle for the invitation and welcome to all people that came to Paris for this conference.

As you said Emmanuelle, I've been exploring the subject of arts and artificial intelligence through different perspectives so just to add a few words to what you already said. I co-founded Ask Mona which is a startup that help and try to facilitate access to culture through the creation of dialogues between cultural institutions and their visitors, so what we do at Ask Mona is that we work with museums monuments theaters to create for them conversational agents that you may also know as chatbots as you mentioned Emmanuelle, and those chatbots are here to answer people questions before coming to the venue but also to create mediation tools that are available during the visits but also at distance to create some narrations about collections or exhibitions. And we also have a lab inside Ask Mona where we try to experiment to find out new applications of artificial intelligence related to issues of GLAM professionals. As you also mentioned Emmanuelle I'm working also as an artist, and in my artistic practice, I use AI and algorithm as a tool to create but also I try to question the way AI can shape all perceptions. And lately I work a lot with archives that I use as a creative material but I'm going to talk a bit more about that after. I'm a co-author of a book about art and AI, that was published last year, so it's in French, it's called "Propos sur l'art et l'intelligence artificielle, artiste en devenir" which in English makes "Talk about art and AI artists in the making" and that's a question: artist in the making. And last thing you mentioned also, I'm teaching a course about art and AI at Sciences Po Paris, Celsa Sorbonne university and Aivancity and also it's really important for me to have those dialogues with students and to try to make them discover artificial intelligence through the prism of arts. That's it for the for the quick introduction.

There is something that often strikes me when I read headlines of articles related to art and artificial intelligence, a lot of them portrayed AI as active agents so I made a search on Google news a few days ago and when you type "artificial intelligence and arts" these are the first results you can get about it. And so what we can read here is that machine, AI, robots, they do art history, solve the problem of artist organs, create works of art and even make

millions at auctions. Let's agree on the fact that AI is a tool, a really powerful, one but still a tool. Now imagine that we replace AI in those headlines with another tool. For example let's take a pencil, now we have pencil do art history solve the problems of art historians creates works of art and even pencils make millions at auctions: that's nonsense, right? Beyond the ridiculous what is so bad is that words matters, they have an impact on how we perceive AI even by starting of the name artificial intelligence all of these have an impact. And you won't take me seriously if I was saying that humans we compete with pencils but it's difficult for most people to really get what AI is and how it works. For example we can see in those headlines some confusions between the hardware, the robot, that is sometimes mentioned and the software, that can be the algorithm: sometimes they are together but sometimes they are separate and there are confusions about that. And as a consequence people might see AI as a kind of technical gods that can do anything, and maybe even destroy themselves or on the contrary other people might think it's just bullshit and some useless new tech they don't care about. And this is bad because in both cases we could cut ourselves from a really powerful tool, but first and foremost by putting AI first we hide the fact that the system are built by humans, for humans.

The matter here is a matter of responsibility believing that it's not us, it's the machine, is the best way to lose accountability for what we actually build. What can also make me uncomfortable is the way, again in those headlines, they show AI as conquering the art world. As I already said, AI is a powerful tool opening us a lot of new possibilities, but I don't like when it starts to sound like technological determinism: I mean it's not AI that is going to solve that have had art historians stumped it's art historians on themselves by using AI tool maybe and perhaps by doing it they can even invent new AI methods. And this is why I don't think that AI is conquering the art world. On the contrary I think that it's us, people from GLAM sector, we can revolutionize AI. GLAM sector can be a laboratory of desirable futures with AI, indeed by making effects of the algorithm tangible, we can change views and also practices of it. It's not new, in the past cultural industries have already played a pioneering role with new technologies, since decades big firms out of cultural industries have worked with artists to use their creativity as a way to innovate. Creativity requires a step aside and this is precisely why it can be a powerful tool to identify new applications that people already knowing the technologies or the field wouldn't consider it. Just to name an example, cybernetic artist Nicolas Schöffer collaborates with Philips engineers and together they create Cysp robots that you can see here, back in the 50s.

GLAM were also among the first to use new technologies, let's not forget for example that a museum was among the first to launch a website in 1992. But let's go back to AI because this is why you came today. There are fascinating stories of early creative uses of artificial

intelligence, I love especially the love letter generator invented by Alan Turing and Christopher Strachey in 1952. This is one of the first known work of new media arts, that was able to generate love letters and actually after it was also used for a lot of other applications. And all of that is not just a happy coincidence: cultural industries have a lot of advantages that can make them an ideal field of experimentation.

Beyond creativity that we already mentioned culture and industries have a lot of data available, especially structured ones and as you may know machine learning algorithm needs to be fed with the most data as possible to be efficient and the best quality the data have and the best it is for the algorithm. And there is something else that shouldn't be under considerate is that GLAM are addressing audiences, sometimes even large audiences, and this can make them an interesting playground to test how people can interact with AI system. Pictet Company perceived that years ago: they have multiplied projects and programs to identify and experiment new application of artificial intelligence in cultural industries. Let's take an example of a program from Google called AMI (Arts and Machine Intelligence): its purpose is to create collaboration between artists and engineers around machine learning. To quote them (as you can read on the slides), "by supporting this emerging form of artistic collaboration we open research to new ways of thinking about and working with intelligent system". This can't be more explicit ! And also at Google they have in the lab in Paris what they called creative coders that are people with mixed expertise of tech expertise and also creative. And so GAFAMI are not the only one to do that. I took the example of Google but IBM or Microsoft are also really involved. (Just to remain there GAFAMI is for Google, Apple, Facebook, Amazon, Microsoft and IBM, is the way to put all of them together). But BATX, for Baidu Alibaba, Tencent, Xiaomi, are also really involved. For example, Tencent created a creative lab with The Palace Museum in 2017 and it was a way for them to export the applications of advanced digital technologies.

You may think it's just a question of softpower, a way to demonstrate their technological superiority through projects that have a positive impact on society, and you will be right! But I think that we can also considerate cultural industries as a battlefield in the competition between GAFAMI and BATX to be leader in artificial intelligence. Indeed to take the lead they need to think before others of the next groundbreaking applications of artificial intelligence. What really matters is the fact that there are not only big tech companies that innovate in arts and artificial intelligence, the diversity of projects presented during "Futurs Fantastiques" show the dynamism of GLAM professionals from all background.

Actually I think that glam can be even more than a laboratory of new applications of artificial intelligence, I think that art can be an area to explore ethical issues. High intangibility is

sometimes an obstacle to have a clear understanding of some ethical issues. It's often complicated to anticipate them sufficiently for AI system creators, and when they are noticed too late they already have a bad impact on the life of millions of people. Regarding the massive impact of artificial intelligence issues, it's important to have everybody at the table to discuss about it, not only its creators. But as I already said before most people don't really get how it works sometimes they don't even notice that they are interactive with artificial intelligence and as a consequence they do not feel concerned about those issues or they think they have nothing to bring at the table, no new ideas to share. This is where GLAM have a very important role to play, again. Art can make sensitive, tangible and accessible some ethical issues and aspects of AI. In this way, I think that art can be a kind of ethical sandbox where we can perceive unwanted effects before it's too late.

Artists can help by staging scenarios that stimulate folks, about what is desirable or not with AI. This is what I tried to do with my last exhibition "Is it True? The post-truth archive factory", that just opened at the Briggait in Glasgow two days ago. It was the results of a one year long artist residency, made in partnership (among the partners they were the national library of Scotland). During this residency I talked with a lot of historians, archivists, artists and tech specialists, and what I wanted to do is to explore how AI could challenge our perceptions about truth and fake in the context of disinformation. I worked with a dataset of broadsides (broadsides are kind of ancestors of tabloids), and we can say that and I choose them because they have a complicated relationship with truth already, and I work with the digitized collection of the national library of Scotland. And few days ago I was able to meet the original documents and that's the pictures you can see about it. And I used those texts to train generation artificial intelligence algorithm, it's a GPT for the people who know about it, and because I wanted to use those texts to create fake archives, to create new fake archives, textual archives. And so here is a text that was generated with the algorithm, so it looks the same as the original one in the way the text is positioned, but also in the kind of words it's using. So I generated a hundred fake archives with this algorithm and I selected a hundred truth archives and it ended up with three works.

The first one, "Living organism", is an installation that took place at the library of the Ecole nationale des Chartes, in Paris, and it shows how AI could challenge definiteness of archives, so what you can see in these pictures is like three old printers printing on long paper wool continuously and it's a parallel with the continuous generative process of artificial intelligence. I also created selective memories. Selective memories is an online platform where original broadside texts and generated by AI texts are shown to participants. They looked exactly the same and participants have to decide whether they want to archive or erase those texts, with the two simple buttons you have it. And once they have done it they

know if they erased a real archive or generated one, and it's the same for the archive button. And what I wanted to do with that is to explore our abilities to discriminate truth and fake in an archival context, and what's funny is that for the moments most texts archived by participants are AI generated ones. The third work was the post-truth archive. The post-truth archives is a network composed of a register (the red one you can see on the pictures) where all the text that people wanted to archive are combined so you have truth and fake archives in the register and all the texts people wanted to destroy are around the register on the floor. And what this work tries to explore is the way the impact that biases, and also institutional forms can have on the perception and on the propagation of fake.

So, there are just a few examples that I take from my artistic practice and that I wanted to share with you this morning but there are dozens of other artists exploring those issues in their practices and maybe, just to name one among them as an example, there is Trevor Paglen who questions in his works the ethics of autonomous vision systems and again it's just an example.

And don't get me wrong with all of that artist practice examples: it's not only artists that have a role to play but all of GLAM professionals. Indeed I think that art and culture have a powerful role to play in the diffusion of knowledge to the general public. By mobilizing all of our different expertise, all of the expertise we have in this room for example, we can create as many different formats to share and compare views about what application of AI we desire or not and it can become as many windows on how we wish AI to shape our futures. If there is only one thing I think you should take from my presentation is that we should decide all together what future fantastic involving AI means to us, those are choices and decisions we should make together, as a society, and the role GLAM sector has to play in it is to provide the tools for that. New promising applications of AI as we have seen but also food for thought about and things to make everybody able to join the conversation about ethics and artificial intelligence. And that's what should be our contribution as GLAM professionals: allow everyone to share their views about fantastic future along artificial intelligence. Thank you.

Questions:

Chair, Emmanuelle Bermès:

Thank you that was really great, I'm sure you have plenty of questions in the room for Marion.

Yes Nicole here.

Nicole:

That was a wonderful talk and really provocative and I certainly think you're absolutely right that, artists have opportunity to engage in, really, with the ethics about AI, and help us understand that. So to that point I'm wondering about the previous piece you showed us the living organism I'm really curious, what was the response of archivists you know of librarians to this notion of the living organism?

Marion Carré:

Living organism is really inspired by talk I have with historians and archivists. All of them told me about the kind of exponential growth of archive they are facing and that even is amplified by all of the digitized tools we have, and that was a way for me to create a parallel with how artificial intelligence in a way can be also a way that amplifies archives. So it seems to find some collective... There was a meeting of issues they have and things I was thinking about, so I would say that I had a nice welcome.

Emmanuelle Bermès: I saw a question I think it's Mike Keller

Mike Keller:

We all know that archives contain documents, pseudo documents, true documents, false documents, documents with a point of view, yes? So discerning that whether through evidentiary protocols or through some AI intervention is a feedback, so I'm wondering, as you extracted these documents or pseudo documents, whether you and your machine considered the role of archival documents taken from an actual trial, an actual prosecution even going back a couple of centuries the role of sworn statements, the role of referrals to some Christian ethic, morality are vital in our jurisprudence. Even though we may not recognize that today can we make sure that the AI does that or are you posing a situation where the AI shouldn't do that, and all of us and the vast majority of people in this world can decide for themselves without knowledge of the role of documentation sworn statements and so forth in the judicial privilege system?

Marion Carré:

Thank you for your question. For me it was way to again raise questions as you said in archival documents there are truth, fake, amplified also documents, and that's why I choose broadsides because they have this complicated relationship with truth as I already said and that was a make for me by creating actual fake archives with AI, it was a way for me to cross the border a bit and try to ask the questions about what is true what is fake, how we perceive it as people, and also there is the question of the selection, so the thing I like is that what we have today is the results of choices decisions that were made to keep documents, but also

there is a part of hazard, like some documents that were lost or destroyed or stuff like that. I wanted the artificial intelligence to play the roles of the hazard by creating like random documents. But also I wanted people to be conscious about the decisions that are made to keep or not keep records, and also make them think about biases we can create when we decide now to select something that can have an impact in the future but we don't already know which one. So for me I'm just raising questions but of course I don't have the answers.

Chair, Emmanuelle Bermès: Any other question from the room, yes please.

Just, this might be premature but also considering the exhibit that allowed participants to choose which, you know, real or fake or in between broadside to save. It's probably premature to say that the fake ones are more popular but if that turns out to be the case, I'm just interested to know if you have any sort of follow-up ideas about what to do with the implications of that. Certainly you know in the history of recent history of AI there's a lot of discussion of algorithms learning stereotypes basically and then regurgitating those back to the audience and the audience responding to what they expected to see. So that could be one phenomenon here but there could be many other things happening and I'm just curious, if you have any other ideas about that, thank you.

Marion Carré:

Yes completely. What I start to notice, as I said, is that people save mostly generated documents but that's just a statement at the moment: I will share the results of what happened when several months we will be passed. But also this is the artistic part of it and it's not completely scientifically accurate but, among the partners of the residency there was the SOBA lab (Social Branding Action research laboratory) and there is one researcher called Kohinoor Darda that is working with me. So I gave to her the fake archives I generated and also some originated ones and she actually created a study to try to have more background about why people make choices and also to know more about. Is there a question of background like for example to trying to know if people that are trained in archive or that work in GLAM sector will less choose to archive fake ones or stuff like that so we try to see with the work she's doing for from those archives what can have an impact on choices made by people and of course we are going to share that and maybe the result will be also different from what I've noticed in the platform, so yes there is a follow-up that is planned.

Chair, Emmanuelle Bermès : Yes Sally.

Sally:

Thanks very much for the presentation. You talked in the beginning about accountability and artificial intelligence and the role of humans and I just wondered what you sort of thought about transparency and artificial intelligence, and in the ethical discussions there's a lot of and discussion related to the black box nature of algorithms and I wondered if you could just say a few thoughts about opening up how the algorithms actually work, so you said this is fantastically selective memories where people have input but the inputs of the algorithms in this process so that's something about the transparency, thanks.

Marion Carré:

Thank you for your question. Yes, transparency is a big issue also. Some people are working to try to make algorithm and to have more explanations about what happen in the black box so the black box is a big issue, but I think even if technically it can be difficult to solve it, it's important that everybody is aware of that and when we choose to use an algorithm that have a part of black box maybe in a filed like judiciary, or thing like that, it's really important to be aware of that, to try to monitor that the best way as possible and to put everybody on the table to try to get what we want to do or not and to try to create some other barriers even if there is a black box. I think that's a big issue to use things with a black box in some fields that have a real impact on people's lives, but I think also discussions and sharing views can be a way to agree or not of what we can do and want to with those algorithms.

Emmanuelle Bermès: *I would have a question for you maybe unrelated with your presentation but I know there are people who are skeptical about chatbots in the room so, would you like to share a few examples of things you've done that have been successful with Ask Mona?*

Marion Carré:

Yes with pleasure, so back to the chatbots. I think that's for me chatbots are like any of the applications or websites again as for AI is just a tool, but what is really interesting about this tool is that it allows people to have a conversation with an institution, an artwork, or you can have different context of conversation and what I like to do is that in the way it works, for example when you use it for mediation, if you spend some time in Paris you can go for example to the Collection Morozov exhibition in the Fondation Louis Vuitton and during this exhibition you can use Twelvy (that is the chatbot we created) to take pictures of artworks, send them to the chatbots and start a conversation about the artwork. And for us it's just a way to position the mediation tool a little bit different because, by creating conversation with people we put a different perspective, a different position, and we try to highlight things and also it's really about the narrative process and it's not only for us, what we do is not only the

tech part of it and I think in all a digital tool it's really important to have not only the tech parts but also to have good content and that's why we not only work on the tech but also on the content to create narrations and also to try to sometimes simplify the messages and create background that can make the artwork accessible to everybody.

Emmanuelle Bermès : *And maybe also the interface design is key to a good interaction with a machine.*

Marion Carré:

Exactly, that's a big issue for us (for example because there are some chatbots where you can ask questions) to try to anticipate what people can ask. I think there is like 80 percent of thing you can anticipate but then there is just really surprising thing that people can ask about the chatbots and what is interesting about that is also how in the design system you communicate to people to make them aware that a chatbot is not technical god as I was saying before. It's a system it's trying to answer some questions but if it's not trained to answer the question, it can't answer the question, and also it needs to have some answers to that. Sometimes we're able to detect what people wanted to know but we don't have the answer for that, so we can't answer to them and I think that it's really important also for us, as creators this time, to make people aware of the limits of the system, what it can do and what it can't do, because otherwise that would be like fooling people.

Emmanuelle Bermès : Thank you, any other questions from the audience?

Marion Carré:

Vous pouvez aussi poser vos questions en français si vous voulez. Je comprendrai aussi.

Emmanuelle Bermès : Yes Tom.

Tom:

Thank you for the presentation. Do you have a view of what is the role of librarians, archivists, and museum professionals: as we move more into AI should our role be to surface data and let others make the interpretations and do the analysis, or should we also be applying machine learning?

Marion Carré:

That's a huge question I think there are many things to do for GLAM professionals. What I was really trying to push in the presentation was also, the role we can have in sharing and also create formats, so that we can share the knowledge and create interactions between

people, but also I think that, as I said, because there are a lot of data available I think there is a lot of work on the data but that also already have made like there are a lot of amazing datasets that can be available and that can be used by scientists but also every GLAM professional by trying to find new applications to AI because of the challenge they face. We all like invent new AI applications or we transform them also. So yes I think there are plenty of things to do for GLAM professionals.