EMCA/AI meeting minutes 2023-2024

Below you will find the notes made during our meetings. Feel free to adjust notes made of your contribution!

Reading suggestions

Please add any papers you think might be of interest to read with the group. We will use this as a resource for future reading sessions.

Papers
C. Mondémé. Sequential organization in human-animal interaction.
Saha, D., Brooker, P., Mair, M., & Reeves, S. (2023). Thinking Like a Machine: Alan Turing, Computation and the Praxeological Foundations of AI. *Science & Technology Studies*. https://doi.org/10.23987/sts.122892
Pelikan, H., & Hofstetter, E. (2022). Managing Delays in Human-Robot Interaction. *ACM Transactions on Computer-Human Interaction*. https://doi.org/10.1145/3569890
Enfield & Sidnell (2021). Intersubjectivity is activity plus accountability
Paul Dourish, Graham Button, (1998), "On technomethodology: Foundational relationships between ethnomethodology and system design", Human-Computer Interaction, vol. 13, no. 4, pp. 395-432.
Burak S. Tekin, (2024), "Disciplined body: How players design their game movements for the machine", Discourse, Context & Media, vol. 57, no. February 2024, pp. 100754.
Enfield, N., & Sidnell, J. (2017). On the concept of action in the study of interaction. Discourse Studies, 19(5), 515–535. https://doi.org/10.1177/1461445617730235

EMCAI meeting May 24, 2024

17 participants

Discussion session on divergent assumptions as to what "interaction" is in "human-machine interaction"

This topic was suggested by Mathias Broth and Damien Rudaz

The goal is to get a broad overview of perspectives on what constitutes (human-machine) interaction. Inspired by The written language bias in linguistic (Linell, 1982; 2005).

HRI/HCI actors' assumptions about "interaction", can we clarify tacit or explicit assumptions that guide the work of those who study, design, build, program etc. robots or VUIs?

Interaction as information transfer <> interaction as dealing with interactional problems

Divergent assumptions rather than incorrect assumptions > we will not start from a critical angle. Linell speaks of overemphasis or preoccupations (Linell, 1996)
Not merely verbalize but 'steelman' various orientations to "human-machine interaction"

On which data could these claims of existing assumptions be grounded?

- HRI/HCI/design papers
- commercial robots and VUIs tech documents
- …

Some examples of assumptions at Aldebaran/Softbank robotics

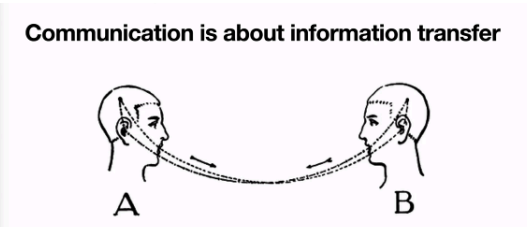
1. HRI as strictly step-by[step proces (goodwin, 2007)
2. HRconversation as questions and answers (Relieu, 2020)
3. HRI as a practical achievement > it is pointless to reconstruct analytically (e.g., using CA) to, then, extract a set of granular guidelines or rules

1. Example from Aldebaran documents in which behavior is programmed in step-by-step packages. This means you cannot represent micro-sequentiality (cf Mondada) > you cannot see actions immediately responded to as meaningful, as the steps are separate.

2. Second example "paths of least resistance". On a Pepper or Nao robot you will almost never find the robot making accountable noticeably absent behavior (e.g., not responding to a greeting). This is possible to program, but this is not done. From the perspective of these UX guidelines "slef-selection" renders the robot's bheavior unpredictable and obtrusive. It might lead the robot to produce new terms to uninterested humans. Instead more QA-structure-like structures. In many ways Chat-GPT works in the same way.

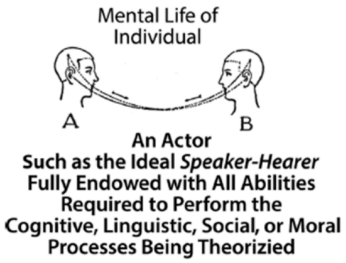
3. Common sense is enough to design HRI: you don't need EM/CA like approach when you have common sense of interaction. That is enough to design an interaction (cf. Pelikan, 2020 and Rollet & Clavel, 2020). Other perspective is that designers need to be able to articulate the mechanisms of interaction when they design, not only rely on tacit knowledge. Counter argument to this is that to ride a bicycle you do not need to know the mechanisms of how the bicycle works, it will not help you in riding the bike better.

Mathias: thank you Damien for this preparation. Linell's basic claim is that if linguists worked more on spoken language and not mostly on written language, the theories and ideas would take a different shape. We are maybe not so



interested in making strawmans or enemies of designers, but to try to find a way to say what we have to say in a constructive way. I had prepared some visualizations to show you about communication (e.g., De Saussure, Cours de linguistique générale: Communication is about information transfer). Sender <> receiver, encoding a concept to transfer between individuals.

I had outside of this other candidate assumptions (perhaps not to arrive at 50 like Linell), but let's first open the floor.



Jakub shares an image from Charles Goodwin's final book (2018), which argues for a broader account that also takes materiality and multimodality into account.

Mathias: before the meeting I asked Hannah to play the clip that to me is a very good example of that no matter how the designers may have conceived of the meaning of an expression (e.g., Cozmo happy animation), which then of course unavoidably appears in a situated moment and gets interpreted in a range of ways. This is a good example that meaning does not always carried by form, which may bring us closer to one of these assumptions. Designing the form to always do the same thing is of course problematic from our point of view.
[Hannah plays the clip in which the 'happy to meet you animation' is treated as the robot confirming that it really likes the kind of beer one of the participant's is drinking]

Saul: I was just thinking that one of the jobs here is to make the argument from the perspective of the designer. To see where the strengths of such an argument are. The sender-receiver model, mathematical model of interaction, provides you with an intuitive abstraction that can be operationalized and measured (see also Paul and Roger's project ot measure the interaction's quality). And at some point we will have described interaction well enough that someone would want to do some deductive work. I think what we see happen in HRI is the result of underdeveloped theorized field. I think there is a lot of strength to that, and of course if you want to measure the quality of the interaction, you have to abstract.

Roger: I was going to make a completely different point, but first I'll respond to Saul. One of the things Paul and I have been trying to do is carefully define some of the basic aspects of behavior. Only on Monday we were trying to differentiate between communication and interaction, which are not the same. E.g. working on pictograms that depict interaction between artificial and living systems, to help us get our heads around the distinctions that need to be made, e.g., for interaction we talk more about coupling between systems, synchronicity and such. I'll get back to my other point later.

Jakub: I have two points, both more in response to Damien's original presentation. The first one: I think there might be another related assumption I have been thinking about (also

related to Hannah's clip). I think there's an assumption that HRI primarily concerns interactions of humans interacting *with* AI or *with* robots, but in some ways, and of course what a lot of EMCA research shows, but it is perhaps more importantly how people act *around* these kinds of devices. In the clip this would concern the laughing of the people that happened after the robot's turn, which does not seem to be produced for the robot.
The second point responds to the third assumption Damien presented. It reminded me of a couple things, one is this discussion about what is sometimes called technical and vernacular description in CA. Discussion between Jefferson and Pomerantz in the late 80s/90s, Pomerantz was arguing for altering CA jargon to make it more vernacularly accessible. Jefferson was arguing that the point of CA is the technicality of it, that indeed requires some training to read these accounts. Recent book by Button and … has a chapter on this as well.
My question would be whether we should treat EM/CA's output as theory or as instructions (see also the riding a bike example). Garfinkel (?) has a point on this as well, saying the description is good when it can be used for doing the thing it is describing.

Mathias: just very quickly, would be possible to phrase the with/around into a one-on-one assumption rather than the robot being in a social environment.

Damien: you are right the bike example was not best to steelman the argument, I think the argument or what I'm trying to construct into an argument from my discussions with engineers. Huber Druyfus followers, the core would be, that even if you use what is practically developed by EMCA, e.g., rules on turn-taking, using these guidelines or normatively relevant principles will never with a robot that is as an expert, because it willb e a beginner that follows certain rules. CA can provide reconstruction of rules or guidelines or principles or norms, but when you actually try to translate that into rule-based robots, which we tried for a long time, you will end up anyway with a beginner-level interactant.

Stuart: there is a lot to talk about here, I guess we could be a bit problem focused, I'll say by preface, I think there is fundamental differences between machinic rule-based systems (including probabilistic ones, ML-based which are discovering rules). Computational rules and what we describe as rules are different things. Example of the description problem: write the most descriptive text on this orange, but it back in the bag and try to find it next week. You will not be able to find your orange. That said, we can be problem focused, can EM/CA studies of interaction, can we apply that to the design of interactive system, so I guess this is a bit of a centrist position, realizing that there is a difference between visual processing by a machine (using labeling and such) and seeing. What is the problem that is being solved, are we talking about a theoretical discussion or a practical design 'can we make stuff work better' way. This is my little bit rambling comment, to add what was being said.

Adam: building on what Stuart said, whether this is a conceptual or practical problem. Working with designers of a telephone chat system, we were making suggestions on the design of openings and such. Then we reached a bit of an impasse, when thinking how we can quantify or qualify whether these suggestions actually made the thing better. Perhaps a question for Roger and Paul: what is the end-goal for the measure you are working on.

Roger: an artificial agent has a way to modify its behavior to combat when it measures the interaction is not going well. That would be one way to use this measure. Since I got the floor

I will come back to what I wanted to say earlier, about the bicycle example, which I find totally fascinating. You have an interaction between a living system and non-living configuration of stuff which nonetheless is able to articulate. There is a notion of successful interaction, which is that the combined arrangement stays upright. What I was taken with was what the living being needs to know. In my mind, as an engineer, the person on the bicycle does not the physics but it is subconscious and learned by doing. The control policy is being learned and made subconscious and automatic. It is automatic because it is a loop, using feedback to appraise the success and make adjustments. It is useful for the person to know that, but the place of that knowledge got me thinking.

Hannah: I was thinking about that too, in driving for instance the same thing applies. I was thinking that maybe I would disagree because there is knowledge that is useful. I used to be bad at driving curves, somebody gave me tip (look further away) that really helped. So I would probably agree with Roger, that there is some understanding that will make designers better designers.

Damien: for the question of what do we know, which is a broad question. I was using Druyfes's work, the notion of knowing would imply representation of the precise mechanisms of the bike. That would be what they would name knowing, not tacit knowledge, which would be more something like heuristics (bike goes right, you pull a bit left), which they might describe more as coping. It might be a question of vocabulary. I think Christian Licoppe had a nice argument: you do not stop create maps because an expert does not need a map. Bourdieu had a nice sentiment that maps are what you use when you are a beginner, you refer to the map everytime you need to go there. The expert will not use the map but use the direct environment. Licoppe was like, we still use maps, so I guess maps are useful. A form of representation of what you should not do could be useful to designers. A nice quote from a jazz pianist, asked how you can improve improvisation of playing. ..; [missed the last part of this, sorry damien]

Adam: with the bicycle analogy, perhaps someone else pointed this out already. The designers are not the bike riders but the bike's designers, which seems like an obvious distinction that is worth making.

Roger: do we design conversations or do we design agents that participate in conversations?

Adam: yes I was thinking of the telephone system I have been working on, would perhaps be different for generative AI.

Roger: in teaching a child to walk do you give it a script or do you help it in other ways?

Stuart: there's a bunch of papers in AI that are very heterogenous in the way people approach this fundamental question of what is human-machine-interaction. Linked a paper.

Jakub: I thought a bit about this earlier discussion, this aspect of rules and sets of rules and descriptions, and the characteristic of them that they can never be complete (orange example, Damien saying that you can never give a complete set of rules for the machine to follow). Another assumption perhaps we can add of the completeness of meaning or sense.

In EM and CA as well (Garfinkel & Sacks, 1970 >indexial argument). They also frame it in a way, in science and technology there is this notion of rules as a list that can be complete at some point. G&S argue for the etc., that it is indefinite.

Hannah: I just quickly wanted to say something in relation to Roger, in my mind, even with LLMs we are still designing a certain persona. The machine generates its turns, in some way you are still doing this work on what is this participant going to be. Cozmo was designed to be cheeky and resisting certain actions, which are deliberate design choices to hide the fact Cozmo is not perfect technically (e.g., small processor).

Mathias: okay I will try to be quick, and also introduce maybe another aspect. I have been struggling to phrase this in a short an catchy way. But I'd like to refer to recurring situations that …., Sergey Passiero, Barry, mysefl and Hannah have been seeing with self-driving cars. They might hit the breaks, which is treated as an invitation by the pedestrian for crossing the street. Mismatch between the machines reason for breaking and the pedestrians interpretation of it. I don't know if we have, time perhaps people can respond in the chat otherwise.

Final words by Damien: thanks for being here on this topic. My final words were: anyway chat-GPT and openAI by having a hands off approach. We will lose our jobs in a few months (jokingly). What we see here goes against traditional UX heuristics, e.g., predictability of the system. This goes against what Jakub says about the essential 'vagueness' of conversation.

EMCAI meeting December 1, 2023

8 participants

Heider and Simmel Animation

Mathias: using sequential analysis to study this should be possible
Sylvaine: animation, there is a story, embedded in the way the figures move, robots are not following a pure script from A-Z, more opportunities to fill in the blanks, constructed nature
Saul: resources for orientation, pointing (the triangles point in consistent direction when moving) - psychophysics, studies of interpretative, comprehension resources - paper on agent-based modeling https://link.springer.com/chapter/10.1007/978-3-642-38073-0_21
accountability is unescapable, social encounters
Hannah: design perspective, how do we see that the small triangle and the circle are "with" each other - similarities to moving in traffic; difference between the storyline/emotional impact and the techniques that are used to animate that
Saul: synchrony - in humans it is emerging
Hannah: touch, speed/acceleration can be observed
Heike: movement as meaningful
Mathias: vehicular units; adjacency pairs still observable, contrasts (soft, "aggressive" movement - built from how we normally do these in human social life)
Lynn: viewing lines - how does the large triangle detect the other ones (does it hear them?)

Heike: can you talk about touch if there is no hands/feets
Lynn: the front/tip of the triangle is orienting but also smashing the house
Saul:

EMCAI meeting October 30, 2023

6 participants

Brainstorm on possible future collaborations/events/workshops to do with the network:

IIEMCA > far away (Seoul), so it is usually difficult to meet offline. Please suggest events if you see something.

Hannah: Event in finland in May on digitalization (so a bit broader than our field). Are people interested in going, are people planning to submit? Organize a panel? EMCA? Only three slots, very selective.

Hannah Pelikan (in chat):

Studying Technologized Social Interaction II (In-person seminar)

University of Helsinki, May 13 and 14th, 2024

Call for Participation

This two-day seminar is free of charge and welcomes both doctoral students and more experienced researchers to attend, present, and participate in workshops as we explore common interests, challenges, and experiences on the various topics concerning technologized interaction. We invite scholars working with recorded data from any kind of technology-mediated or technology-supported setting (e.g., educational, professional, mundane) to come and share their research and thoughts, but anyone interested in the topic is also warmly welcome. The aim is to bring together scholars with a shared interest in the study of technologized social interactions (Suchman 1987; Mlynář, González-Martínez, & Lalanne, 2018) and address the following questions: (…)

Register for the event by November 10th, 2024 https://forms.office.com/e/4er2vN7GNz

Jakub: Panel possible?

Hannah: I think there is space to come with suggestions (if we suggest with a small group of people). Co-authoring something like the explainability paper?

Jakub: Group abstrac might be a better idea, otherwise we are competing with each other + more work for the organizers. I see that Ilkka will give a keynote on AI:

Jakub Mlynář (via chat): Keynote: Ilkka Arminen: Will Artificial Intelligence be the next big technological development since the Internet? How can EM/CA researchers study or use it?

> We should probably go a different direction than this

----------Discussing the reading – Part 2 ----------

Short summary of the last reading session, in which these readings have been discussed mostly from a broader angle:
https://docs.google.com/presentation/d/1t47ciWFoxfmXhDB1y-iot1NVqFw22xd8_ClfjcSmZI8/edit?usp=sharing

Hannah: Initiating an interaction is treated as more special. Difference HRI/HCI and human-animal interaction, in HRI/HCI doing appropriate responses (e.g., have a short conversation) is often treated to be a lot harder than initiating interaction.

Lucien: The case for initiating actions is a good example. I think it is easier to treat initiating actions from the animals perspective, the recognizability of initiating action (willingness to initiate). In our case with the robot, it's the humans who are orienting to the robot initiating because it has to propose something. Now that I think about it, maybe just related to the setting…

Lynn: With regard to initiating vs. responsiveness I think an important part where these types of interactions differ is togetherness. I'm working from home today so my cat is sleeping next to me: we can both initiate interaction at any point, it is a kind of incipient interaction (depending on what we consider interaction). It is at least very different from having a robot in the same room. Another point is willingness, where I am curious whether a robot initiating interaction is treated as displaying willingness. Would it be possible to see potential ontological expectations from a member's perspective?

Second, in these papers I thought it was interesting to see that we safeguard against different things: Mondéme spends a lot of space to discuss conversations/talk vs. the more non-verbal human-nonhuman animal interactions. She also safeguard against whether nonhuman animals do things that are often dismissed as behaviorstic (e.g., Excerpt 1, is this 'just' conditioned behavior or sequentially relevant?). It makes me think of the language we use in our papers. I think in HRI/HCI we safeguard against different things, such as the importance of doing micro-analysis in such a numbers-oriented field.

Lola: The way we approach the tech (from a waiting robot, to a machine that adresses us), has consequences for the expected intersubjectivity of the machine. Even if we just assume it, it work?

Hannah: I feel like it is often dependent on the application, in many companies at least it is presumed there is intersubjectivity. Our work kind of shows it is crumbling away in some sense, I've become kind of pessimitistic in some sense haha. I think it is interesting to poke this concept. When people first meet a machine that is what is being tested, maybe people apply intersubjectivity and discovering it is not applicable. Interesting as in how we appraoch

the world (do we assume intersubjectivity?). Paper on speech impediments > would be problematic if we would ‘learn’ from different competencies that intersubjectivity is not there.

Jakub: regarding intersubjectivity, maybe one should be a bit careful about relying to much on the notion itself. Because intersubj as a notion of course is build on presuppositions, similarly to interaction (inter-action, inter-subjectivity), and it guides you towards a certain way of thinking about your data or the materials you are working with/situations you are looking at, especially in these like borderline cases (human-nonhuman). I remembered this paper by Libermann:

"Another next first time"

"How do the objective structures of social interaction get worked out before those structures receive their contents? Merleau-Ponty (1962: xx) offers us a clue: 'Sense is revealed where my own and other people’s paths intersect and engage each other like gears.' It seems that the course of affairs serendipitously guides the participants to the competent coordinated social interaction they seek. Ethnomethodology and conversation analysis share the common aim of tracking just how these gears engage each other, that is, how the microstructures can lead the parties to their solutions. In this sense, intersubjectivity is more objective than it is subjective, and so perhaps a new name for the phenomenon should be sought." (Ken Liberman -- https://tidsskrift.dk/socialinteraction/article/view/110037/159343)

Might be a liberating way of looking at things, not intersubj the important part but how people create menaingful social objects together. Maybe that is something that can also happen among animals and humans and machines and humans. A request is meaningful for the interactants, the recognizability of these objects. Maybe it is not a different question altogether, but a different aspect of it. As everyone knows, sometimes the notions we use hold us hostage in some way.

One more idea, regadering the earlier discussion on being together with an animal vs. a machine that needs to be turned on, I was thinking about the meaning of life. You are dealing with living entities or entities that are not in a conventional sense living (e.g., artificial life). Interacting with an animal is interacting with a living being.

Lynn: ontological questions are also publically visible? Like we noticed in human-cat interaction in the cat café that chidren do not know how to pet a cat, but that the parent stops them when they do things too roughly for example, and the parent shows them how to do it. It is learned, also for example, which parts of a body you can touch in what way (that an eye is more sensitive than a hand for example). With robots, I see that people are hesitant to touch it when I show it to them. They ask me for permission. But is this oriented towards the robot or is it oriented towards me, not breaking ‘my property’.

Lola: the example of touching the robot, could it be related to the accountability towards the person? Lynn:> yes is what I meant as well!

Jakub: It is not only about knowing you can hurt the animal, but also the other way around: they can hurt you. This is something less prevalent in the case of a robot perhaps, because you presume it's safe, that it doesn’t bite or shoot (haha), and doesn't give you an electric

shock. A different kind of report that is being established. Interesting to think about it this way, what are the contrasts, what are the similarities?

Hannah: thinking back on the quote you shared Jakub, I was reminded of social robots, things or agents? of Morana Alac (Alač, M. (2016). Social robots: Things or agents? AI & SOCIETY, 31(4), 519–535. https://doi.org/10.1007/s00146-015-0631-6). I've observed multiple times with humanoid robots, that people are very curious about touching the robot, but this happens not when they move, but when they are still. The work that goes into the autonomous movements to make them less creepy, are you trying to uphold aliveness, playing with that, to some degree we have puppets/toys, but it needs to be clear right. To trick people into that it is alive might be more problematic, like a show, the circus or such, you want to be entertained. There is something about the body that people are curious about. The thing about being alive and having sensorial experiences, and we might get there through EMCA, but perhaps in other ways than other approaches (Later, via chat: Asta Cekaite has also written extensively on touch)

Jakub (in chat): This might also be related to Merleau-Ponty's notion of intercorporeality. This also reminds me of an old paper by Licklider who speaks of human-computer "symbiosis" - https://groups.csail.mit.edu/medg/people/psz/Licklider.html

Lynn: with regard to the takeway, are you interested in this type of work? Do we think EMCA has something really important to add? I think for our work it could be really useful, Tuncer et al is the first paper I know that takes a jab at this. In human-animal work I don't recall this being done yet (visible human expectations of the interaction)

Lucien: I was wondering related to the aliveness, if the autonomous character of a cat vs an agent that will be interpreted by humans in this very. I was wondering whether the examples of Cozmo (of you Hannah), a Cozmo has some kind of autonomous mode, as a pet in the home, I was wondering how that example was approached like a pet. If autonomy is an activity that has bounderies.

Hannah: yeah good point, I think in some ways Cozmo does something right humaniod robots cannot achieve, because it somehow manages something through the autonomous mode. It focuses on objects in the environment, you can see it 'inspecting' something (special cubes, but other objects might also be seen as obstacles, like the edge of a table). I have always been thinking of it as autonomy, but I was thinking whether there is also a relation to the senses and intercoroporeality in a snese that is very difficult for a robot to understand, while for pets this is more relatable. We know how pain feels on the skin, how it can be difficult to see things in the dark which we then transfer to for exmample color blindness in certain animals. For machines, this needs to be more explored. For Cozmo, because it is purely visual, you can kind of start to understand how Cozmo sees the world (also an interface in an app). I'm wondering whether it is not only autonomy but how easy it is to start understanding how they perceive the world. This is more opaque in more complex robots, where with a visual robot you start to understand the body more easily perhaps.

Lucien: for me maybe a criterion for projecting autonomous life onto a machine, a practive that is not unfortunatly in Mondéme's paper. She refers to it as ventrelloquism practices, when you provide an account for what your cat is doing. You can use I-perspective or you (oh you want to do this/that). I really like this, I wonder if ventrelloquism practices could be

seen for artifical agents. I can think of cases in which the robot acts weirdle and people accounting as ‘you’re geeting nervous Pepper’, but it is not the same as . .. I think we assume animals do things that are meaningful for themselves

Lynn: would be interesting to check our own data for the I-perspective. What does this say about being able to put ourselves in their shoes, about whether there are shoes

Hannah: I was thinking about seeing this more in the Cozmo data, where there is also more possible with regard to talking over (voice-over), while with many robots this runs into overlap.

Lucien: yeah without a body (VUI) that will be difficlut. But with regard to the cat, they can do cat-stuff, but with the robot is there robot-stuff? Do we have to make sense of robot-stuff we have to discover, outside of the human-mimicking thigns?

Jakub: there are specific ways of robot-specific things, as a human you can mimic a robot, there is also CA work on this. I don’t know if this is robot-stuff in the same sense as there would be cat-stuff, which you can imitate and make fun of.

Lynn: I think users are implicitly asked to move beyond the robot stuff actually. To ignore when it surfaces and to ignore that robots need to be set up as autonomous. Also robots don’t have concerns like a cat would have. They don’t want electricity.

Jakub: amazing point, they are there for us to interact with. They don’t go home to read a book. Of course they do things when you are not there (vacuum for example), but they are doing it for you, not doing it for themselves. [Lucien in chat: this is what I wanted to point at with ‘robot-stuff’]

Hannah: Looking at this network, when we talk, you hope you come with other ideas when you contemplate between meetings. With robots there are like these reminder systems, the robot reminding the last time we talked, but the robot will not say ‘I thought a bit more and now I got a new idea’ > a tool for interaction.

Jakub: one more thing about comparing animals and robots, seeing if that works. With animals, a lot of the relationship is caring for them, also with animals like horses, cows, goats, the interaction is feeding them (of course there is part of how and what). There is a way we are socialized into (becomes intuitive) interacting with at least domesticated animals. Very different with machines, we want them not to break down because they are tools, different from animals (even those we have no emotional connection to).

Lola: does this maybe also relate to the fact that we know as humans we are hungry/eating and can relate to the horse wanting/enjoying something nice. But with the machine, with my bike for example, the more I care for it, the more I care for it. Similarly likely for robots. With humans/animals this is not necessarily the case, if we know food brings enjoyment. It is not ‘the more food I bring, the more I like the animal’.

Hanna (via chat): Owning vs. Relating? (Lola: 👍)

Summarizing: what is everyone's main takeaway/what did you find surprising.

Hannah: I didn't think we would talk about the body so much. I think it is interesting to look further. Looking at animals makes us very conscious of how robots have a different/no sensoriality.

Jakub: this was great, I have a lot of notes. Interesting ways of thinking about things. One takeaway for me may be a way of moving a bit from looking at interactions, perhaps to looking at living together as the subject of what we are studying. And to what extent it is possible to think about living together with machines.

Lynn: body + looking beyond one interaction (however we dileneate that). Adding to that is for me an interest in whether ontological assumptions or expectations are publically visible and something we could analyze with EMCA. Tying back to Jakub's point, this might benefit from looking beyond interaction (however we dileneate that). Is being together also an activity?

Lola: interesting to think about the intersubjectivity in both these context. I'd have to think about it more but I thought it was very nice.

Lucien: I really liked when Jakub suggested to leave intersubjectivity to the side. We will forget it for a short time and think of other notions. This idea of the body, the living being, autonomous life, it was really interesting to me. I think the discussion makes me give more credit (no scratch that), I was really critical of E&S we discussed in the other paper, this idea subprehending the activity (you can subprehend in sawing/loom, there is less intersubjectivity in subprehending) and now I see from the discussion we had about interpreting a pet and living/being together, maybe this idea of being together with an animal, but it is hard to account for being together with a machine in your daily life. The discussion made more sense for me of these aspects E&S paper pointed at. And just to come back to the first point, because we can put this intersubjectivity apart, we

Roger: sorry I've been lurking, this is my first attendance at your meeting. It has been quite fascinating. A couple of you know me, I'm an engineer, so yeah, I've learnt a lot. I'm very interested in the way you use the word robot, to me there is no such thing as a robot, to me there are many different artifacts. So I'm trying to map what you are saying into technical side. I'm also interested in activity between humans, animals and robots > organized several workshops on this. Vocal interactivity between humans, animals and robots VIHAR.

Since I kind of switched on, so some more points. I presume the famous Heider and Simmel animation (triangles moving) has bene analyzed. I ask because it gives the impression of different personalities and such. I've also asked students to realize in robots.

Have people been working with the Myra? Animal like robot that has motivations, that has an affective space, if you stroke it the right way it makes pleasant noises and lights up green and the wrong way it > designed vocalization for Myra. People are trying to have it speak, and I'm pushing back on that.

Hannah (via chat): https://www.youtube.com/watch?v=VTNmLt7QX8E

Jakub (via chat): I didn't know the Heider and Simmel study. Reminds me of https://en.wikipedia.org/wiki/Flatland

EMCAI meeting September 29, 2023

Notes EMCAI 29 september 2023

4 participants

This is a reading session discussing Enfield and Sidnell's paper "Intersubjectivity is activity plus accountability", proposed by Lucien, and Mondéme's paper "Sequence organization in human-animal interaction. An exploration of two canonical sequences", proposed by Hannah and Lynn. We start with a short explanation why these papers were proposed:

Lucien: When you proposed to submit papers out of the box I immediately thought about the paper of Enfield & Sidnell, because for me it was really helpful to establish some concepts, notions, dimensions of human interactions, that are easily challenged when we see human-robot interactions. I first read it two years ago, eventually I came back to it with an interest specifically in intersubjectivity in HRI. What is the relation between intersubjectivity, activity, accountability. At the same time I'm really critical of how the three activities (sawing, weaving, conversation) are selected, especially sawing. I don't think it is an appropriate way of describing this activity. I'm not sure it was that useful to put so much difference between these activities.

[I could not keep up with some parts, sorry Lucien! You spoke about your project with Heike, so please add if you remember.] From the participants' perspective it is easier to find subliminal/abliminal cases when people are in a group. The concepts are not new, but they are tools to discuss the question of accountability. I like the fact that this has been under emphasis by this list they put in.

Lynn: [I said something about why we put Enfield & Sidnell (E&S) side by side with Mondéme. In short, we hope these non-HRI papers provide a different perspective on issues we see in our work (relevance of intersubjectivity, what can be analyzed as an (accountable) action, etc.) Also interesting how E&S centralize language for intersubjectivity vis-à-vis human-nonhuman interaction.]

Wyke: The notion of commitment is basically where they start. Prior to intersubjectivity they presuppose commitment, there are a few concepts related to that. Makes me think that all these things that make these terms do not apply to machines. I don't know if that is too simple, but this seems a fundamental difference at least. That is obviously different with animals, they do have commitment in a sense.

Another thing, you [Lynn] spoke of language as the ultimate basis for intersubjectivity, but in HRI we see that robot's have language, but no intersubjectivity. There is a task-driven activity where language is a vehicle, a basic tool, but no intersubjectivity.

Jakub: Let's start maybe with the intersubjectivity, as you mentioned Lynn and Wyke in a sense too, of Deppermann and his paper in which he makes a distinction between two types of intersubjectivity. This is how E&S approach it too, although not as explicitly. Deppermann basically says that you can have intersubjectivity as presupposition, second is intersubjectivity as accomplishment. In a sense these two conceptualizations intertwine in ways that are not always disentagable I would say, you can also see this in E&S. Intersubjectivity as presupposition means that no language is required. Then you have intersubjectivity that is perhaps more complex, in which language is involved.

With E&S I was also not entirely happy with the way they present these activities as Lucien said, as like, the sawing as being very simple, basic, and conversation as infinitely complex as they also say. (see their huge table). It depends also what you mean by sawing, I was thinking, when you say sawing as an activity, do you just mean the physical activity of sawing wood, or the activity as a moment in time that also includes solving troubles. Because at one point they say, the activity is put on hold to solve some troubles, but for me that is not the case. Let's say, go cook a meal, I don't mean only the moment that I'm cooking as part of 'cooking a meal' but everything involved (e.g., preparation) and when something is put on hold it is also part of the activity for me. So I wasn't quite sure to what extent, there was a narrow understanding of activity. In conversation you solve the problem by the same means as what actually brought on the problems (talk).

Last point, with regards to Mondéme's paper. What I found interesting is that in both cases, in a way, they employed (in diff ways probably) this notion of simplicity, which related to my previous point, with E&S mentioning a 'simple system of human activity' and Mondéme also looking at what she calls 'simple formats' (the adjacency pairs). And I thought this might be an interesting thing to consider, in which way the notions of simple and complex are used in EMCA, many places, e.g., 'simplest systematics'. There can be a simplicity that you suppose in your object of study, the two-person saw for istance. But then there is the simplicity of what comes out of the analysis, e.g., the adjacency pair, that helps you see the studied phenomenon in a certain way. Two ways of looking at it, simplicity tied to what is going on in the interaction, and simplicity of the vocabulary/analytic tool that you use. I was quite unhappy that two people using a saw or people using a loom is simpler than conversation. I could use a saw, but I couldn't use this loom - for me using the loom is much harder than conversation.

Wyke: It seems E&S use simple as equivalent to 'without language'. And I was also thinking about the sawing because of what you said Jakub, the sawing at some point is also finished, the wood being sawed through. So then you need to restart another sawing activity, but how do they manage that? Same with going for a walk, you start, at some point you are done. It also presupposes a lot of experience in doing the activity, there is this discussion in E&S of the husband stepping in for the daughter-in-law, working together with his wife on the loom: he has less experience so language is needed, so in that sense they touch upon this issue of skills or training. There is this aspect, you could also say, that challenges this concept of how intersubjectivity is established, skill and knowledge. Reminded me of Mike Huiskes'

work on trainee surgeons with trained supervisors (e.g., 1, 2). Language there comes up in retrospect when something could have been done.

Lynn: Simple also often comes up in research on human-animal interaction, Mondéme too accounts for this I think. A cat sitting by bowl and such can be treated by readers as simple or even too simple to call a request. There is a recent paper in the Journal of Pragmatics by Leonie Cornips, Marjo van Koppen and others on deixis in human-cat communication, that shows how cats use their body and gaze to point humans towards things. [Example of how I learnt that I need to walk away from my cat to have him to come inside, where at first I would call him (which is what would work for a dog, but might signal to my cat that I'm blocking the entrance)]

Wyke: accountability extends beyond the task beyond there and then. They display accountability towards not the robot only/so much, but the people behind the task, the activity. E&S focus on the very local application of accountability, but I think its more than that.

Lucien: What strikes me in Mondéme papers is not simple/complex, but generic vs. specific. Of course she refers to Schegloff, 1987. Beyond sequence organization more generally are behaviors more or less context-sensitive in the broadest sense. Like, generic would be almost a-contextual, and specific more contextual. Why introduce this difference? Looking at our own data with Nao, I noticed we wanted to think about so many contextual things. In the context of Mondéme's paper, I felt like I was missing some context, and some embodiment in the whole ecology of the activity. Not always, but sometimes, for example Excerpt 1, the person and dog are already in front of the door. Excerpt 2 as well, the person says 'come on forward', for me analyzing the dog moves with anticipation between the end of the turn, it can be retrospectivitly anticipated after the 'come on' and the current situation. This may be very difficult to acquire with the data, but historicity of the relationship for example, contributes to our understanding of the fragment.

Jakub: I like this point about generic/specific. It relates to something I wanted to say already before, also with regard to what Lynn said. It was interesting when you compared what dogs do and what cats do, when reading Mondéme I thought of this: it's a huge gloss 'interacting with an animal', not only with an individual in a species, but also across species. That is one layer also with regard to generic vs. specific. Unless I missed something, I don't think she makes this very explicit, that she is comparing different species. At the beginning she mentions the interspecies and intraspecies, which is also interesting with regard to HRI intraspecies interactions of robots, or even interspecies of two machines acting together. It happens, but as far as I know people don't really analyze it. But human-animal vs. human-dog. Then you have the book by Goode, Playing with my dog Katie, it is not about interacting with a dog or interacting with an animal, but playing with my dog. Very context specific. As a reader it can still be very recognizable, and then go from context specific to more contextless.

Something else I wanted to mention, discussed in EMCA many times, and that is the importance that is placed on conversation as a mode of organizing talk, versus other notions that I don't think I saw in these papers, such as speech exchange systems. You don't need to claim or consider that what is going on between humans and animals is similar to a

conversation. Probably for rhetorical reasons that this is where Mondéme starts. It could be an exchange system, not per se a speech exchange system. Similar to E&S, different speech exchange systems.

Then there is the skills question. From interaction analysis we learn this is social interaction, but not what makes them human-animal interaction. The specificity is not really dealt with, the transferableness. But for participants themselves this is specifically interacting with an animal or doing whatever they are doing (sawing/weaving). This quiddity (Garfinkel), what-ness of what they are doing is sometimes lost in the aim of describing these things in a way that are more transferable. Also the conversation as something prototypical is not necessary to approach these interactions that are obviously not conversations, they are clearly different, and conversations are very different as well.

Wyke: I haven't re-read Mondéme, but looking at the excerpts mentioned by Lucien, is this not anticipation? Orienting towards the same activity and such, it does not need language. This whole paper could be written without focusing analysis on any verbal contribution.

Fascinating, also thinking about this relevance for verbal cues in situations with humans that is kind of presumed. For example, with regard to the following you mentioned Lynn, we see this in human-human interaction as well: let's get a coffee: then walking away. E&S discuss this in some way as well, we are constantly in such activities that are not well-defined and known. This makes me think whether we need to look at language at all haha.

E&S present language as related to accountability. But there is also a lot of language that is used to do things that could have also been done non-verbally. I wonder if it is always accountability that is at stake. The constant tyranny sounds very heavy to me.

Jakub: yeah that is also what I felt while reading E&S, that they sometimes put rhetorics over analytical precision. It's nicely phrased, but when you start thinking about it in empirical detail, it is not always clear. (...) For example, maybe description can also be done without speaking (e.g., pretending to be someone is describing them in some way).

Wyke: and pointing, also doing description in some way.

References mentioned for which I provided links above (please correct me if I'm mistaken which sources you were thinking of @Jakub, @Wyke):

Deppermann, A. (2019). Intersubjectivity and other grounds for action-coordination in an environment of restricted interaction: Coordinating with oncoming traffic when passing an obstacle. Language & Communication, 65, 22-40.

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EMCAI meeting August 28, 2023

Today two show-and-tells, one by Lucien Tisserand and one by Jakub Mlynar.
6 participants

Lucien's data (on Pepper robot in library/service desk setup)

Fragments of library users, organized according to the following research topics of interest:

- Users account for the fact that they transform the state of the robot
- Users discovering (testing, repairs, assessments, etc.) as the main adequate activity
- Users doing humanizing the robot as ephemeral, problematized, laughable (e.g., dealing with preference for rejecting offers.

Discussion

Jakub: something I found really interesting in all the clips is the way the passersby and onlookers are involved as well. In one (sample 3 I think) there was even a small line forming, there was one person waiting to get their turn in interaction with the robot. A lot of people walking around, watching the interaction as some kind of spectacle. Specific kind of setting, as opposed to more intimate/laboratory settings with one or two people (or malls/public spaces with lower density of people). I was thinking this is really very fundamental to the nature of these interactions. Which also might have to do with this thing you mentioned about the laughter/laughable elements of interacting with the robot. It seems to me at least in the samples that you showed that what some of these people are doing in the fragments is 'running away', not so much from the robot but from a slightly uncomfortable situation. This might be tied to the fact they were often not alone, maybe going somewhere. There was often this sense of going away quickly, but maybe that was also because of the topics you showed fragments on. Lastly, the expectations of using the correct language, (informal ouais to formal oui), people treating robot as barista also used formal 'vous'. Perhaps using more formal language than would be necessary, interesting bc this establishes it as a kind of service encounter. There might be a sort of tension between speaking in a recognizable way for the machine (loudly, clearly, perceivable words (standard French, not dialect and such), also using minimal responses. On the other hand, speaking in this minimalistic way might

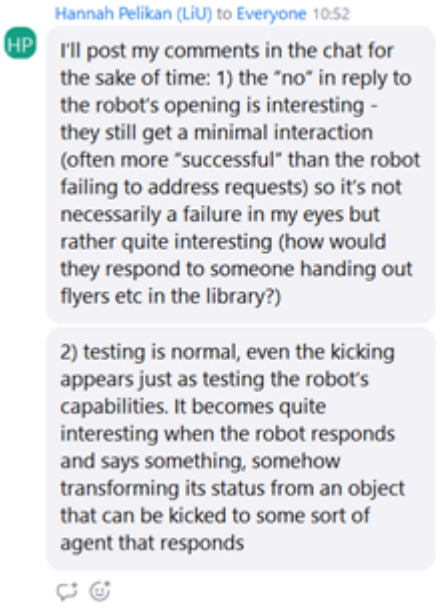
seem rude in human interaction, which might be tied to these formal forms as well. Also really nice way of presenting the data.

Lucien: the formal ‘vous’ and such might be tied also to the people mostly being students and the robot being perceived as representing the university institute. Also keyword approach vs. preferences of refusing an offer and such.

Damien: Format without transcripts is surprisingly easier to understand. Two points of interest: what Jakub mentioned of the robot as spectacle, public accountability of what people are doing in front of the robot. Maybe as you mention, one person is selected as participant and the rest is bystander, then quick shifts wherein the interaction person switches to talking to the people next to them. Also seen in Hannah’s data in a more private context. Quick variants there too in how the robot is humanized or not, side-sequences in which the robot is excluded as a participant (talking about it as he/it). There was an article from [Krummheuer?] about trouble shooting side-sequences, where participants would have timeout with the robot, trying to solve trouble, what does it mean, what is it trying to say to me, then they would go back to solving the trouble.

Sylvaine: I think there is a lot about the experimental setup. It seems ot me that the passersby see a incongruous object, wondering what it is. So, what is this thing rdoing here, defining the situation, what can it do, why would I engage. The robot initiates an activity, which is a crucial point. From what you showed, they try to come up with a request (people making up a question) or they didn’t have a question and they say ‘no’ and they’re leaving. It is very much about defining the situation, even before the point comes where it becomes relevant that it is a robot and how you interact with that.

Hannah (via chat):



Lynn (via chat): My late comment for Lucien: Building on what Sylvaine said, about the situation starting with people first orienting to the robot as a incongruous object and to the situation that needs to be deciphered, I think your data shows that this robot (and I think most robots) do not make themselves evident. Many markers to discern what the robot is supposed to be (doing) or how to interact with it, like clothing, positioning, and conduct prior to a focused interaction, are not present here, so I suspect this is in part what invites many of the question Sylvaine mentioned. This might also be tied to this testing we see, because the robot invites questions about what it is and what it is for, as this is not deducible from its conduct or exterior.

Jakub's data (on Robi, a mobile luggage carrying robot in development)

Data discussed: Clip of a robot avoiding a terrace added to its map even though the terrace was not there on that day. Then a clip from the same moment in which we see the interaction in the control room. These people accounted for the robot's behavior in a different way (it's swerving to steer clear from the wall and also avoid a bump in the road > this bump in the road is actually a little later down the road).

Discussion

Lucien: maybe you mentioned it, I was wondering if the activity that you found in the control room, if it's something the pilot is used to account for what the robot does or if he is put into the situation to try to explain something that is pretty obvious to him.

Jakub: in a way it's both, I think it's the first time he explains it to something who is a resaercher, and with a camera. But it is not the first time that he had to explain what he is routinely doing.

Lucien: I really liked how the view the control room has is similar to these review camera's in cars. People can rely on what they know from other places.

Sylvaine: like you said it is a complex situation, there are quite a few foci. I was wondering what you are interested in. The situation is not normal situation of explanation, that is no problem but needs to be taken into account. The way people on the street interact with the robot is impacted by the experiment as well, with you and the engineer being there. So what are you interested in?

Jakub: This was a first look at autonomous mode; btw. it is still pre-programmed and fixed. The robot is operating in a world that does not exist anymore, moving in a mapped world that shifts. It's not avoiding obstacles in real-time. What we were focusing on before was 'follow-me' mode, where people adapt (e.g. their walking) to how the robot moves behind them.

Sylvaine: I think you are absolutely right there are different robot modes that you could use as foci point. But there is another area in which you need to choose an area: inside the control room or how the robot is managing public space. I think you have very different, full studies.

Jakub: At the moment I'm still trying to specify what to look at. The connection between the two areas (control room and outside on the street) is interesting but I will probably have to choose one, because they are in fact parallel and independent.

Damien: [I missed what was said, sorry Damien! I think it was about people explaining the robot's behavior for the robot itself.]

Hannah: I really like this data, both from the road and the control room. The kind of sense-making the remote operators have to do. The explanation is good enough in some sense, it doesn't really matter whether the explanation is technically correct. They don't say 'there's a ghost here', but they do say, there is something on the ground. From my perspective this is where we are at right now. All these modes that are not amazing, but that you have remote operators, different people walking behind the robot to figure out the robot's behavior.

Jakub: There were some times in the data that people walking with the robot also did work to move away objects ahead that they knew the robot would have issue with. A lot of human work, in the follow-me mode as well.

EMCAI meeting June 30, 2023

Data session hosted by Damien Rudaz and Christian Licoppe.

Abstract

The fragments that will be presented are drawn from a corpus of interactions between the visitors of a science museum and a Pepper robot featuring a conversational chatbot. This robot was placed at the entrance of an exhibition and its interactions with humans were recorded during two weeks, in July 2022. We are especially interested in recurring situations where third-parties (bystanders, etc.) addressed a human participant currently interacting with the robot and topicalized (on behalf of the robot) the action that the robot just produced – whether or not these third parties "played the robot's advocate".

EMCAI meeting May 26, 2023

12 participants

A discussion session on overarching themes. See the slides for a short summary and the questions discussed.There are two parts to the discussion: methodological questions and more analytical questions.

Starting with methodological questions, going around:

Adam: just a really quick observation on tech obsolosece. My Phd was on Skype casts. Skype had ability for voice only chat. Com ein here to improve your English or to talk politics. Jjoining such a room would put you into a room with all kinds of disembodied voices. Partly because of that I didn't publish anything from that thesis. I still learned how participants conducted themselves in certain settings, how certain types of tech are involved in the interaction. It might be less impactful to, less directly relevant to practitioners, but I think it is still valuable.

Hannah: I agree very much that it is interesting to learn from these cases to translate. It becomes more pressing when you do hybrid studies, when you want to talk to designers. Reviewers might ask the version of the software.

Jakub: I don't think I have so much to add. Thinking about obsolescense, my experience with tech that is up-to-date sometimes it works the other way around. By looking at how people interact with unusual interactional objects for them, it creates a perspicuous setting that makes visisble things about interaction that are not necessarily tied to the novelty of the technology. Those are ways of interacting that are more ancient. But the interaction with these techs make possible to see older things. Not only practical ways of dealing with technology becomes obsolete.Just very briefly regarding interactionally competent machines I was thinking, with regard to the question why are we not researchering other objects (stuffed animals). One distinctive aspect would be passive versus active competents. Agency in some way of the objects. But some tech objects might be more active than others. Interacting with platforms/algorithms perhaps have more to do with ascribing agency.

Christiane: I think my thoughts are in line with Adams and Jakubs wrt the obsolescense issue. Very relevant to my project as well. I collected Siri data five years ago, the tech is very different today. But in writing my PhD thesis now I found some kind of justification for my work like Adam described. I'm working on the concepts/terminology to describe the

interaction. I'm actually trying to avoid the word interaction (not to offend real sociologists). I see value of the analysis in trying to find a terminologoically .. way to describe these phenomena that will give credit to the human competence and the CA system of terms and the technological features.

Stuart: as someone who has worked in the hybrid area for a while. Obsolense issue still very alive. I almost went the opposite way were I cared less about design and more about concepts a phenomena. What is more accepted in my field of HCI. What makes something a contribution of HCI, usually some kind of connection to design. We have talked about that in my field. I sort of think if we are concerned with how members in the EM sense how they bring methods to bear on the circumstances they find themselves in. The tech is only part of the assemblage of this. That approach has helped me be less concerned with the recency of the tech. When people bring this critique up, I think there is always gaps. Last thing, the concept of interaction itself has baggage and assumptions. Especially applying this term to technology and machines. I don't think Garfinkel talks about interaction either, even though I have used it loads. How you apply these concepts is still a work in progress.

Lola: Few thoughts on the second point, participant knowledge part. From the Furhat experiment you saw last session, we had the experience last year that no one had previous experience with interactive systems. While now, almost half have interacted with Chat-GPT. That was right at the start of ChatGPT becoming more common. That obviously impacts everything that has been coming, kind of pre- and post-ChatGPT eras. The development goes faster and faster. Stuart's approach with changing what we are looking at would probably be the way to avoid that. Another interesting part on the version point: we had comments from participants, they believed (we did experiments at university), they expected the tech at uni to be less advanced.

Hendrik: I want to add one thing about ChatGPT. It is not designed, but it appears to be able to do everything. Of course, expectations do arise from that: okay, if you design a specific system, that the system can do anything. That puts us in an odd position when we research a system that cannot do all these things. How to convey this notion of design to people who now have been exposed to this experience. To be polite or impolite, to talk like a pirate, etc. At least from our part, as we are also involved in the design of these machines.

Natural vs. experimental and so on: I think you cannot say that one is better than the other maybe. It really depends on the research question. Of course, if you have naturalistic you can pose any research question. For some RQs (that are not 'how do people approach such systems' or something), experimental data can be very useful to isolate something. If you have a specific RQ that is not based on the design of some specific aspect, I think you can ignore the question whether there is better tech available. User expectations can be less easily ignored I think.

Wyke: In response to what hendrik said, the challenge for us generally, many of us don't work from hypothesis or RQs. That makes the design quesitons difficult (also speaking for Lynn, who needs to make design choices). It is in a way from a EMCA perspective, best to deal with naturalistic data, because that makes us not responsible for these choices. We are interested in participant perspectives, not hyptheses etc. This is a challenge. A question Lynn and I and others have not solved yet. The question of obsolescense. Also because of

what Adam said, in the digitally mediated realm we also had this issue. Chat Rooms in the ninetees, is that still pertinent? Twitter has also changed a lot over time, instant-messaging. These are very ‘natural’ techs, widely used. That warrants the analysis of such data, at the same time, they are constantly changing so what are we really researching. What are we researching and choosing to spend our money on.

Saul: I think that to some extent these are well-trodden problems, as others have mentioned. I have re-read Technomethodology the other day. The paradox comes from iterative design while working with an approach that is interested by user orientations. These user orientations change with the system changes, so what are we studying. Obsolescense + participant K > in order to integrate some of the findings, what CA sketches to be everyday talk, there is of course no everyday talk. There is a some of ideological commitment that there is something more stable or fundamental, something as ‘everyday talk’, than routines and practices in other places. Is there such a thing as a primal conversational structure, how do these intersect with these questions of obsolescense. Trying to re-integrate these findings from the past, into ‘everyday talk’ as a basis of shared understanding that changes. As we know from landline telephony to mobile one.

Christian: I just have, these are complicated issues. Some disjointed thoughts: I tend to have two distinctions which may be usefeul. Competence as seen by cognitive psyhcology and as seen by EMCA. For cognitive psychology they do all kinds of experiments and you get to feel these post-hoc evaluations, how subjects felt about the robot (competency). With respect to that we can formulate a situated argument, for participants competence evolves in the interaction. Another thing w.r.t. competence that is very relevant to me, is a robot being competent in that it provides a useful next action. For example, I ask a question and a robot provides an answer. That is competence to designers often. For CA there is sequential competence. The timing production of the action is another type of competence.

Tied to interaction, there are different interpretations of interaction: CA will bring a different idea of interaction, as an emerging phenomena. The inception of competence of a robot being competent by producing a relevant next action vs. the CA comptence ties into these issues of obsolescence.

If you think that a competent agent is something that provides a useful next action, then obsolescence is important. This is where it is connected to engineering. If you think of sequential consequence, these issues are much more stable. The mapping might be very different depending on where we position ourselves.

Focusing on the analytical question/issues more, we open the floor:

Stuart: just want to add based on what we were talking about in the chat, and because we were talking about it recently. Things like user trails as a distinct phenomena on themselves, which has certain qualitities that are different, say, from established practices with technologies. Lynn you said in the beginning [when presenting the slides] with the different domains of studies: often in these fields ‘in the lab’ vs. ‘out of the lab’, while the lab is also part of the real world. We examine ‘doing resaerch, doing a trial’. Similar to any other situational setting. Looking at work in our lab, a lot of it is art based. The orientation of

participants is a ‘ticketed’ experience, oh I have to pay for it. Perhaps Sylvaine and Christian’s paper on the robot in the hallway it is some other kind of thing, putting this thing in a hallway. The robot stuff is a good example, this delivery bot we studied has become a part of everyday life.

Lynn: from my experience…

Hamstrings which RQs you can ask about specific techs.

Jakub: Not about new techs but about trying out, practicising, even experimenting with something. The notion of mockups as well in Garfinkels work. I think there might be an interesting relationship between these things. What happens in these kinds of rehearsal environments, in the lab so to say, counts in a different way than in “the wild” (let’s call it that). There is difference in for exmample playfulness. With mocukps and rehearsles there is a different quality to this work, for one that you can do things differently and as many times as you want, when you practice. You can do it as much as you want, it doesn’t count. Also relevant wrt to the more general things to be considered.

Hannah: I’m also curious about the mockup reference, as designers also use this word. Designers play with this, giving people an artifact an dseeing what they do. Looking at Wizard of Oz that is trying to trick people, trying to elicit ecperimental data, but there is also wizard of oz that is less hidden about the setup, just interested in seeing what people would do when a robot does something. Involving people in something, learning about how people appraoch technology in an exploritory, curious manner. Like we say with the deliviery robot, we didn’t say this interest or time in the robot.

Saul: thinking from a slightly angle, how do other approaches approached these kinds of analytical issues. I think they have often involved, psycholinguistics (Herb-Clark’s appraoch, very influrnetal in HCI) which kind of looks at these kinds of quesitons in a very open-ended way and tries to build them into theories. I will post a table in the chat, this is from the Grounding in interaction chapter in Clark and Brennan. What this does is something kind of related to something we are talking about. It is technologically mediated interaction. What other constraints related to different modalities/techologies. If you are trying to do something different within EM/CA, like C&B with grounding and communication theories and tech mediated interaction, you could look up all different affordances of these techs2. I don’t think we should do that, because I think it is very reductive, and not sensitive to resourciveness of these techs and how they are used. (…) I think it is still useful to be reflective on this. How does what EM/CA offer opportunities for influencing design and HCI.

Stuart: on the back of that, engaging with designers and stuff. There is stuff we have done (my phd students), where we have been exploring different implications in design. I’m thinking specifically of work by … Rez-Cruz. She did some studies on techs with visually-impaired people. We ended up with kind of demonstrations, which is a kind of obvious thing, in the course of doing these interventions they demonstrated how they do stuff. It is complicated if you’re sighted, you’re not used to the tech, you have no idea of the practices. That’s what they show, this is how I use these things. One version of what a demonstration is.

Then she took that and looked: what if you used that as a workshopping tool. It wasn't thinking about informing design from studies, but using EM/CA material to improve design relationships. That seems relatively succesfull.

Hannah: we have talked somewhat about hybrid studies. Let's look a bit more at analytical Q

Adam: We're looking at conversational agents in Califron based systems. Systems designs to inform users about symptoms. The VUI asks a series of questions and tries to get the human to give information about their symptoms after operation. We sometimes find ourselves talking about or to the tv. And we might try to instantiate, and that got me thinking about turn-taking learning oo fchildren. When children vocalize we produce turns around that to create the artifice of an intearction, also with some animals (some human-cat research on that). Obviously with such machines there are different design prompts, it is different from ChatGPT which is generative, whereas a lot of the design user interfaces there are only a few recognized impacts. There are not just objects we try to imbue with a sense of interaction.

Hannah: I think those were very helpful. Lynn and me have been discussing this before, is there a difference between robots and tech you can kind of like respond to or that happesn to do things in interactionally relevant way. I'm thinking of our stove, that beeps at you at random times that you can respond to in annoyance.

Hendrik: I think that is an interesting example, but I wouldn't say that the stove is interactionally competent. It can make the alarm pry, but not more. The Q is: who is dealing with the… who is having the burden with the conversation. If you talk with the stove, you are the one who is interacting. With the robot now, it is kind of the same. If we have turn-taking example, there are these standard programming (if after X seconds other person not take turn, robot take turn again(. Very infelixble. To have a more fluid interaction going on, the human has to do all the work. If the machine gets better, e.g., adaptive turn-taking, the machine takes a tiny bit of the work. But if something goes wrong, the machine cannot solve that, it doesn't evennotice. Related to Adam, there is some difference between the stove and the robot. If humans interact, we are highly adaptive. Maybe this is just the top-end of the continuum, one person does on ething but it is cooperatively shared. If I think about interactive machine, I want it to be able to deal with all these interactional burdens. Clarks categorisation also interesting there.

Saul: In a more granular sense in the paperr Christan and Sylvaine co-autored. I think that there is a question that you come across when you deal with atypical interaction. That some people are thought of as less then human, afforded less room. There is a kind of window in which the interactional competence is attributed. Among more ableist participants there is the tendnecy to refer to the companion. With devices, whether they are allowed the opportunity to produce a competent next turn, people leave room for that. There is RD that makes producing a response easier. I think interaction competence of autnomous of interactional devices could be compared to atypical human interaction, to inspect our assumptions.

Stuart: just a quick thing. Some slight disagreements. So let's think about turn-taking or other mechanism. Ultimately the systems designed, we could use the term simulacrum, we

could also think about games and such as intesnively interacted with AI systems. The thing about AI is that whenever a new AI tech comes along, what came before is no longer treated as AI (goal-post shifting). I was thinking about. In being computational they provide a simulacrum of interaction, bu they are fundamentally fragile, which people find out when they interact with them more. At first magic, but then finding the gaps. Looking at games for example, initially game AI might seem good and then you start to play stuff and you start to see gaps in there. Ways of collaborating around that which are interesting and creative. I think there is an interesting level where the machine shifts in its role in interactoin.

Damien: more about christian and saul said about the competence. I have some blurry cells about that. It was about the notion of next-turn proof procedure applied to interactional commpetence of the robotr. If you consider the robot not a competent actor in the situation, it does not intelligibilty about the actions of the humans. Especially thinking about an experiment we tried to do, where we tried to check how huymans creaeted embodied displays of trouble to which the robot should react. But what is an embodied display of trouble? But doess the fact that the robot respond to something as an embodied display, does that imply there is some sort of intelligibility? I wonder if the degree of competence of the robot also influences what we als analysts can say about what humans are doing, which we cannot do until then without relying on our own interpretaiotn of their actions as analysts.

Adam: I was just thinking about what Saul was saying ealier. About learning from how other disciplines approach these things, applying in a narrower way. Other subfields in CA how they appraoch interactional competence. One way I'm aware of is in second language interaction, looking at how second language speakers develop interactoinal competence over time in an additional language. Interactional competence in that body of work. The ability of member's to establish and maintain intersubjectivity. If you apply that here, intersubjecitivy does not work. The machine might give a sense o interactional comptetence, but whether it is ever there or not. I think at present I would be with Hendrik that it isn'tn.

Lynn: technomethodology: what they called for in HCI not implemented. In robots as well, robots actions are not refexive.

Last question to Stuart by Hendrik: you are arguing that in HCI in general it is not expected from the machine to take part of the work. But it is still called interaction.

Stuart: I was trying to clarify the idea of a spectrum, a spectrum from the stove (dumb device) up to like a smart device. (…)

Hendrik: I think the idea of game AI vs. 'real-world' AI we want to use for tasks. Where does the user interface factor into this. People learn how to use the interface and they become very proficient. We should ask ourselves the question, is it like a user interface? If we have this perspective, good tech can be created that can be used in this interface-like way. The Q of an interactionally competent machine of AI and autonomous systems, it may be useful to differentiate between interfaces and autonomous machines. What a VUI or a robot is, is at the moment unclear. At the moment I'd say an interface, but can it be more?

Hannah: let's take this discusson with us for the next weeks. Happy we are disucssing them, I think we all have to face them. Mightt ie to the deeper question of how we view human interaction.

EMCAI meeting April 21, 2023

18 participants

This meeting we had a show-and-tell with the following presenters:

- Antonia Krummheuer
- Damien Rudaz
- Christian Licoppe
- Lola Lumer & Clara Lachenmaier
- Stuart Reeves

Every presenter showed some data they were working on, followed by a short discussion.

EMCAI meeting March 31, 2023

10 participants

General:
Next meeting on the 21st of April instead of the 28th, in order to avoid conflict with CHI. What shall we do during the meeting?
Saul: Presentations of what we are working on with a snippet of information. Because time is flying, but people have advanced in their projects, so that could be fun. A data show-and-tell. Just showing your screen.
Magnus: and then people just ask questions. And the ones you can't answer are what you need to look at.
Agreed: We will do a show-and-tell wherein everyone who wants to brings some data to discuss and show what they are working on. About 5 minutes per person.

Special issue announcement Discourse & Communication

Note. See the call document attached below at the end of the meeting minutes.

Liz: Call for proposals for a special issue of Discourse & Communication. For this issue there is a word limit, so to be as inclusive as possible, we are going for short papers (4500 words). Also why we haven't tweeted about this call, because we don't want to turn people down and this way we could create the most space for as many people as possible. If we don't receive that many submissions, people can potentially take more space.
Original idea was to focus on issues around Chat-GPT, but this was broadened. However, work on Chat-GPT is very welcome.
Saul: it would be nice to hear people's thoughts on how to spread the call further. For example networks to share. Would be good to hear.
Wyke: colleagues of us (Mark and Andreas) are interested in submitting something, so that is a start.

Liz: our initial concern was too many, but perhaps in the end we need to extend the deadline and tweet like mad.
E-mail Liz for questions, but Saul is also happy to chat/talk with people.
(Liz needs to leave for another meeting)

Discussion Tuncer et al., 2022

Lynn: I suggested discussing this paper because I think it is not only interesting as a HRI paper, but also has a really inspiring analysis of non-verbal interaction.
Hannah: we are now starting to see a body of work of EMCA addressing this type of interaction. A nice work to cite in my thesis. Topic-wise it's also a question of audience, it maybe interesting how they write things out, how they draw on the literature.
Ali: it is an interesting read, I was thinking about more papers are addressing HRI/human-agent interaction. On the other hand, the tech is just booming, quickly changing. Sometimes it worries me that we are studying tech that is becoming obsolete in a month or so. Right now I'm working with a robot, together with programmers that are helping me, because I'm not a programmer. Then looking at Chat-GPT, that is already much more advanced. So, are we working on tech that is already obsolete?
Jakub: what Ali just said also ties to what I was thinking about while reading the paper. I found it really interesting, but I was particularly interested in the aspect of the participant somehow being involved in assuming a way in which the machine/robot is able to sense the world. The production of the world that is sensible/sensible to the robot. There is the obsolescence of the tech that is one thing, but the same goes for the knowledge of participants on how the tech works. How to produce conduct in a way that is recognizable to the machine.
Lynn: In that vein I am thinking about how this type of work can contribute to other fields, beside EMCA/or tech fields. Linguistics, non-verbal communication, …?
Saul: what does this tell us about interaction in general? What does this do with EMCA to HRI, which is not a perfect/easy fit. The thing that jumped out to me, the really useful bit: the focus on interactional competence. Where is it located. To what extent we can think of it. Competence that is linked to our ideology of technological progress; that the machine improves. What are the observable perceptions of the users, that we can infer interactional competence as a co-constructed phenomenon. I also think it has applications for … and disability. We don't want to demand "normal" for users to be able to do. Observe the co-construction of the competence (Chuck and Chill Goodwin do). We discussed this I think, Wyke, when discussing repair, but I think it comes out in this paper methodologically.
Ali Reza: Yes, I thought of myself, my own project. The way forward for me at least and probably for us, is to stay solid on our perspective on human interaction. How it has impact on human communication, interactional competence. From that perspective the knowledge will not be obsolete.
Wyke: I like how they introduce recipient design as a topic. There is little trial and error going on in recipient design (choice of location formulation for example), but this is much more trial and error, which they also refer to. The focus lies on recipient design, and I'm just still wondering what the merit is. I think it could also be something useful in the field of CA, not just the traditional understanding of recipient design, but a more dynamic process, which may apply to many fields, not just HRI, but institutional fields, with children, with animals.
Hannah: I feel like in that sense it was interesting, yes. We see like more and more papers that use these concepts. The literature review draft we discussed in January also interesting

to show what systems and topics are addressed. Does a specific tech matter or is the point that we apply different concepts? Reminds me of 80/90s where they tried to see how these fields can contribute to each other. Now we are at a point: who is this for? Where can we contribute? Broader interdisciplinary. Communication, push the understanding of what HRI is like. For me it becomes more obvious: we also want to bring our (EMCA) research further, not just reach an interdisciplinary audience. Perhaps we also need to build our niche in EMCA. Is this a good way forward or are there things that we are missing?
Saul: I mean I think, the one opportunity is to reconsider the kind of Schegloff's the seven (?) ways of exploring any parts of interaction (seq originization, recipient design, turn-taking, etc.) This paper equivocates a bit whether this is a different phenomenon, or the same. I would argue it is not a different phenomenon (human recipient design vs. HRI recipient design). The whole distinction made in the discussion of the paper of human vs. robot I find somewhat problematic. The way people interact with disabled people. People take for granted that people are capable of using language but this is not true: we can observe that people do not treat everyone within the category "normal interactant". That is the work of membership categorization analysis. So much much work is done to differentiate between circles of competence. I feel this distinction in the paper is designed for the AI & Society audience. It's there the dichotomy in the term H-R-I? > already separates H and R. It does a disservice to the term of recipient design.
Ali Reza: I'd like to go further. I'm working on a project with people with dementia as well. The way we are designing actions is what we look at. He (Schegloff?) understood this recipient design that it is not just the speaker producing something for the audience, but involving the audience through the design. That is an entirely different way of approaching recipient design. But it's more than that: people with late stage dementia cannot communicate verbally, but they are part of the design of the turn. Recipient design should be redefined back to the original idea. Not just the turn being constructed.
Lynn: The conception of humans as a monolith we see also in literature on human-animal relations. Also, I was wondering whether we could treat HRI as somewhat of a breaching experiment, approached from an interest in social interaction (not the machine as focus). The things that go wrong in HRI show what happens when certain things are not done collaboratively.
Damien: about that story of finding links between interaction with robots and people with mental disabilities. Article about not doing repair, behavior of nurses with people with mental disabilities, that would treat things people with mental disabilities were doing as relevant instead of initiating repair. Perhaps we can see this with robots too: playfully perceiving what the robots are doing as relevant to the task at hand (also to not initiate repair).
Hannah: finding the balance that the machine cannot respond while humans are more willing (also willing to test the machine whether the machine can contribute something meaningful to the interaction). Willingness like Damien said to treat the robot as a participant. How can we conceptualize robots in that space, that they have limited capabilities. To not exclude humans with limited capabilities, but to also keep in that robots sometimes become an object that switches off. Difference with animals and human.
Lynn: interest also to expand terms like anthropomorphization (agency also, like Hannah started doing). Within human-animal studies the term anthropomorphization is treated differently than in HRI. Going back to the paper, I thought it was interesting that they suggested recipient design instead of more abstract notions of anthropomorphization. In this sense, EMCA can really add to the discussion and perhaps also conceptualization of such terms.

Saul: Similar to Pelikan & Broth (2016). Differently knowledgeable participants design their turns in different ways that show their understanding of the competence of the robot. But that is not how Tuncer et al. cite your (Hannah) paper. What I would have liked to have seen in the discussion, would be a real attack on this kind of conceit within HRI, that there is this clean-cut distinction. So interesting, that people's pre-suppositions are available in recipient design. It would give HRI such an interesting perspective on what is the user. There is all sorts of ways to discuss to use next-turn procedure in HRI. To also discuss the inadequacy of how the user is brought into the process.
Ali Reza: reminds me of a new paper in a special issue in Interaction Studies. It is going to come out, Sylvaine is also involved in that study we did. We worked on projection, and how the expectations on the human side are projected on the robot. We were critical of this, but we had to tone it back.
Hannah: I was thinking about like, who is the user, and how they cited papers from HRI that are friendly to EMCA (like Fischer on anthropomorphization). Seeing: is there something to reconcile? There are ways you can reach out (like Hendrik is doing). Perhaps places that are more open to our work than engineers, who themselves say they know nothing of people. We call this recipient design, others call the same or parts of this anthropomorphization. There is some sort of similarity there. The robot gets anthropomorphized, but on the human side we treat the robot as social.
Ali Reza: regarding this raising hand and hand shaking. Can be compared to human interaction where this happens as well, this can happen in HHI too. Would be nice to compare that sometime.
Jakub: to some they address this by saying in the discussion how you would view this in HHI (as rude or inattentive or something). More general case of human-nonhuman > discovery of practices and methods. Because it is a first encounter with this entity, they are discovering what can be used. Perhaps it works differently with animals or other human beings that have different compatibilites. And one more point: unrelated but when it comes to recipient design, when I was reading this paper. Who is the recipient? There are also sometimes people interacting as part of a dyad or group. And then there is the camera, the recipient is not only the robot. They somehow interact with the robot as a unit (though this is not addressed that much in the analysis). Same for HHI, as if we are interacting with each other as individuals, which is not the case when interacting with robots.
Wyke: think that is a really good point. This human in HRI often seen as an individual, while in most cases people are doing something with the robot in the presence of others or in collaboration with others. Also wondering whether this discovery happens in other occasions as well, e.g., interaction with children, explanations for why a child would not respond at any given time > different accounts perhaps than when this happens with a robot. I would say this is human interactional behavior not necessarily HRI specifically.
Lucien: setting that is pretty close – public space, orchestrating too much the interaction – the paper is oriented towards the descriptions of how users perceive the robot's competency. They have to work for what they can reasonably do with a robot, what is the purpose of talking to the robot. That's why I also read the recipient design concept as a robot specific practices, but also as testing not the competence but the functioning. I think if it was a testing a screen is tactile (e.g., printer screen) I think it is closer to this kind of testing than testing an interactional competence. The idea of robot recipient design, I was really excited to read this paper for this concept, because I really do think there are some practices that are robot/VA specific. More and more data will allow us to stop compare between humans and robots.

Saul: I mean, I wonder whether we could think about this paper in terms of its role as a paper (missionary, the good news of CA to a particular community of AI & Soc). Or as a paper that develops themes and ideas of CA. The compromise being made in missionary paper is tacitly adopting a kind of particular ontological framework. And that is the kind of thing we are pointing out. That when you adopt the assumed ontology of HRI, that sees these things as … Then it might become easier to get your point across, but it might get into the way of our understanding of recipient design. The approach of CSCW the kind of embattled frustration you can read in the papers from the 80/90s comes from ultimately finding it frustrating to have to fit into this counter-productive ontological stance, or write something no-one cares about.
Hannah: I think that's where we did make progress I feel. To kind of see how impressed the HRI is. Recognizing people have different disciplinary backgrounds but also seeing it has to be thorough. There is this replicability crisis within quantitative works. Maybe it is not as rigid or close as it used to be in other communities. While it is helpful to read the historical, sobering account. To not believe we can change the world just like that but to see people are receptive. They do not seem to be as closed anymore (e.g., Kerstin Fischer, who is not doing EMCA herself but who is mentioning our field in discussions around methods in the field). That I look at interaction was something people were interested in and said : yeah we don't do that, we look at humans or robots (or human perception of the robot) but not the interaction.
Ali Reza: it is a good point, partly due to the pace of development of tech. the roboticists were concerned with mechanics of interaction, but they need more in-depth knowledge now, for which they need us. E.g., particularly from a multimodal perspective, the length of mutual gaze, there are different nuances that we can raise and show them the beauty of the analysis of those details.
Lynn: should we then take a more theoretical approach, add to their fundamentals and questioning that?
Ali Reza: The will was there but the tech didn't catch up. Speech tech is still pretty bad, a long way to go. It is time for criticizing, to push for our agenda as well.
Saul: I like your rhetorical position of 'I focus on the interaction, not the robot or the human'. In HRI, it seems to be the link between those H and R, but perhaps it is more than that. Perhaps whatever interaction is fine. In relation to this question of technological progress, the thing that is missed out when we adopt of the presumed ontology of the testing framework. A kind of pygmalion fascination with creating interactional tools, a really ancient urge, it feels pre-historic. We miss out on so much that is just there if you're not coming in with that presupposition. If I look at disabled people and carers it is interesting to see how common it is: people do superstitious behaviors. For example, a chicken pecking a button and getting food doing a head turn once and then learning that perhaps the head-turn is necessary part of the button-pushing. Similar to people calling 'Alexa' and then waiting, that is learned behavior. Another example is when people call Alexa multiple times and sound annoyed at the fifth time. More empirical work and to figure out how to articulate it powerfully theoretically. There are people that do the theoretical part (embodied cognition and such), but just because those papers are so bonkers (going from astrophysiology to cell biology) it doesn't provide an opening for people to find the stuff they can use.
Hannah: this is something I experienced as well, with theoretical people really appreciating the empirical fine-grained work we did, and using our transcript. These interdisciplinary communities see the value of the empirical work we do.

Magnus: just thinking about that is ongoing and what you said Hannah (focusing on the interaction) and what you said Ali (about the emotional robots) I think for me one of the issues with HRI as a field, is that robots can do anything. There are many different ones, there are the digital robots and humanoid robots and robots you look at Hannah, it becomes kind of muddy what we are looking at. If we look at interaction, then this doesn't matter.
Damien: I did a lot of experiments with a chatbot that is now obsolete. I agree that focusing on the interaction is a great way to keep the relevance of our work. In my experience, the paper of Tuncer et al. was not completely… I could see in the notes of that paper some tension between the two visions/ontologies you mentioned:

"*By 'recognise', we mean the robot subsequently acting in a way which human participants treat as responding to their own previous conduct and meaningful, notwithstanding the possibility that the action be fortuitous, and its appropriateness as a response a coincidence. Whether or not robots can understand actions the way humans do is far beyond our considerations (on human–machine conversations as a simulacrum of conversation, see Button and Sharrock 1995).*"

Damien (cont): I think this is where this tension is shown. What would someone from social robotics remember from this article? The remarkable behaviors of the robot are fortuitous (not intended from point of designer) is relevant to designers. (more was said but I couldn't keep up, sorry Damien, please add if you can).
Hannah: Seeing these cases that go differently than anticipated, there is also some benefit in that I think.
Magnus: I remembered what I wanted to say about tools and interaction. If we think of recipient design only in terms of what we know of it from social interaction, we are also doing ourselves a disservice. Looking at affordances for interaction, like you would with a hammer, whatever the machine is you are looking at, is useful.
Saul: some of the discussion we have been having, I'm wondering about whether we could change our kind of colonial metaphor with popal vs. missionary papers. This is often how people interact between different subfields, finding people that do theoretical work that intersects with ontological framing of the analysis we're doing. That might be a different approach, perhaps we should take a different approach to this relationship. I don't know what kind of paper that would be.
Lynn: Perhaps not a paper. Collaboration, not just in the sense of working together but rather exchange and invite each other.
Hannah: I think this is even in the recent Button and Sharrock book on CA, their frustration. We need to advance EMCA understandings of technology. We need to do both: collaborations but at the same time also come together.
Saul: For example, wouldn't it be nice to present at a CA conference presenting data without framing it as different. Presenting human-animal/human-robot/human-human in which you see the see the same phenomenon.
Lynn: this is actually where my PhD-project is likely going! We are thinking of including human-animal data as well, broadening from human-robot to human-nonhuman.

Appendix: call for special issue

Discourse and Communication:

Invitation to Contribute to a Special Issue

“Conversation Analysis and Conversational Technologies" Issue Editors:
Saul Albert, Hendrik Buschmeier, Elizabeth Stokoe, & Wyke Stommel

We are pleased to invite researchers to submit a paper to Discourse and Communication for a special issue on conversation analysis and conversational technologies.

Conversational technologies are currently in the headlines as OpenAI’s ChatGPT, Microsoft’s Bing, and Google’s Bard have opened chatbot interfaces for large language models to a mass market. But how “conversational” are these technologies in terms of being able to recognise and use fundamental conversational structures like turn-taking, sequence organisation, and repair? Ethnomethodological conversation analysis (EMCA) researchers have had a long and critical relationship with the development of such technologies (see, e.g., the works collected in Luff, 1990), and have offered foundational empirical perspectives on human-computer interaction (HCI, e.g., Suchman 2007) as part of a wider movement of phenomenology-informed scepticism towards claims of artificial intelligence (AI) (Dreyfus, 1992). Now, in the early 2020s, we have reached the point where studies of everyday conversation regularly involve our interactions with and through such technologies (Mlynář et al, frth; Porcheron et al, 2018). Detailed analysis of interactions with everyday conversational technologies have inevitably, therefore, drawn on studies of what Schegloff (2007: xiii-xiv) describes as ‘generic orders of organization’ such as the ‘turn-taking problem’ (e.g., Pelikan & Broth, 2016; Cyra & Pitsch, 2017), the ‘trouble’ problem (e.g., Pelikan, Broth & Keevallik, 2020; Stommel, de Rijk & Boumans, 2022), and the problem of overall structural organisation (e.g., Pitsch et al, 2009; Licoppe & Rollet, 2020).

However, while these and other studies have contributed to a burgeoning field of research applying EM/CA concepts and methods within HCI, there are still many unanswered ontological and methodological questions. For example, how (if at all) should we conceptualize conversational technologies as ‘participants’ in conversation (Krummheuer, 2015; Alač, 2016)? And are the training data used to develop conversational technologies—often based on written texts or simulated interaction—ever capable of enabling such systems to emulate real conversation (Stokoe et al, 2020)? Such questions point towards the possibility of developing a more comprehensive program of ethnomethodological respecifications of AI, accountability, and agency (Yu-cheng 2022; Reeves, 2022). Perhaps bringing together EMCA single case analyses of conversational technology in action (Schegloff, 1987) can contribute to fundamental research into the generic orders of conversational structure—to forms of “analysis that will yield the technology of conversation” itself (Sacks, 1984, p. 413).

The aim of the special issue is to publish manuscripts based on empirical studies examining any conversational technology domain, including human-computer interaction (e.g., voice assistants, dialogue systems, social robots, chatbots, etc.) as well as technologies for evaluating human-human social interaction (e.g., speech analytics, sentiment analysis, benchmarking frameworks etc.), through conversation analysis and related approaches in

ethnomethodology, discursive psychology, and membership categorization analysis. Methodological, theoretical and review papers on the role and potential of conversation analysis, and related approaches, as an approach to examine conversational technologies are also encouraged.

The special issue also aims to incorporate responses to and commentaries on papers from conversational technology experts working in industry.

Abstracts of up to two pages (single space, 11-point font minimum, to allow space for references and data, if included) are sought initially and will be reviewed to check that proposed papers fit with the special issue scope. It is also important that manuscripts reflect the aims and scope of the journal, and these can be accessed via the journal homepage.

Please submit a structured abstract containing an introduction, objectives, methods (for empirical studies, e.g., dataset, ethics, analytic approach) or approach (for methodological, theoretical and review papers), findings/key points, and conclusion/implications.

Key dates:

- Abstracts due: April 28th, 17:00 AOE, 2023.
- Notification date: May 19th, 2023
- Completed articles due: September 30th, 2023.

Submission of Abstracts and Full Articles:

Your abstract of up to two pages should be sent to the special issue editors in the first instance by email: e.stokoe@lse.ac.uk. The special issue editors will review all abstracts to ensure that proposed papers fit with the remit of this issue. If your abstract is accepted, a full article of no longer than 4500 words should be submitted by September 11th 2023, though their publication remains subject peer review. Authors should closely adhere to the journal guidelines about article types and the submission process.

The guest editors for this special issue are Saul Albert, Hendrik Buschmeier, Elizabeth Stokoe, & Wyke Stommel. Enquiries about this special issue should be directed to the guest editors.

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[ES1]Place? Or "in prep"

in prep... sorry. Yes. It's going to AI and Society but isn't submitted yet. We can also leave it out if that's better? [SA2]

EMCAI meeting February 24, 2023

9 participants

General Info:
This will be a data session hosted by Hannah Pelikan on “Participating as an artificial teammate”:

I will present data from a project that explores the potential of artificial intelligence as teammate or collaborator. The recordings come from an experimental setting in which US students work on classic teamwork tasks together with an AI agent called Vero. Vero has been conceived for research purposes and exists in various forms, including as a screen agent on the Zoom video conferencing platform. In this format Vero is not acting autonomously but is (secretly) controlled by an experimenter (Schecter et al., 2022) following the Wizard-of-Oz paradigm (Porcheron et al., 2021). After familiarizing ourselves with the complex setup, we will look at a case in which Vero remains notably quiet, providing an opportunity to explore post hoc, after the interaction, how the agent could have minimally contributed through sound. Expanding the format of a traditional data session, I would like to explore how we can practically transition from documenting *what is* to discussing *what could be*, moving from analysis (and critique of AI) towards interaction design (Button & Dourish, 1996; Crabtree, 2004).

Next meeting: March 31st, discussion session paper Tuncer et al., 2022.

For the upcoming sessions after that, aside from data sessions and discussing finished papers, another idea is to discuss draft papers together (similar to the meeting on the 27th January 2023).

Data session:

Hannah: traditional datasession for 45 min., and then the last 30 min. engage in design activity. Trying to find ways to transition from analysis to design. This data session is testing this approach.

Not really a robot, or a robot in several shapes. More conceptual, AI as a team mate (also relates to Chat-GPT). Vero is a conceptual research prototype. It's non-anthropomorphic, ball-shaped. Designed to participate in team discussions. There is also a video prototype, visually similar to a soundwave that is moving when the AI 'speaks'.
System is controlled via Wizard of Oz paradigm (common method to test capabilities that don't exist yet). Vero has been introduced very carefully, extensive introduction how it was developed to be autonomous.
The goal is not to build a fully functioning robot but to do ask questions that are generative for design: What could be? What could you do with a system with certain affordances? What would we even want, what would be useful?

Experimental setting, typical teamwork task: think of as many different ways to use a paperclip.

Mathias: the question in line 18, 'what other music instrument can we think about' is not part of the test.
Hannah: researchers are trying things out as you can see, in this case, what happens if the agent calls someone out who is not participating. Another way things are tried out are for example, the AI dumps twenty options in the chat and then says this to their teammates. That is very different, so really just seeing what happens in different ways of working together.

Brian: did the participants think about the task beforehand? And they think it is autonomous?
Hannah: yes, they are told that it is a really … system (hoe noem je dat)
Mathias: I find myself immediately interested in what might not be in your immediate interest. 'Doing being a machine' in a way. For example the pause between 'let me think about it' and a suggestion ('drumsticks'). There's definitely something interesting here.

Switch between virtual teammate/virtual assistant. You can ask me anything.
They also had more machine-like introductions

Hendrik: I wonder a bit about the timing of the whole interaction. Sometimes it seems that it's a bit slow or something. Then, the suggestion with the timing and the reply to that is so quickly done. How could you say that, I was wondering whether the 'how could you say that' in line 40 is still referring back to being called out by the AI, and not the stabbing suggetion by the human teammate.

Hannah: with Zoom recordings we need to be careful in analyzing timing too, because the delay that could occur in video calling.

Lucien: On the last part of the clip, the sequential organiziation is a proposal and an assessment of the proposal. In the end it seems the sequence is packed in one turn, so the human self-assesses her proposal ('I was thinking of stabbing people' followed by 'but that's just not very nice').

I was thinking of the assessment at line 28, because there is quite a long silence before Vero makes this assessment, and I was wondering whether the humans were waiting for Vero's assessment.
Hannah: in general they do assess the other's proposals. Watching back the clip, the assessment comes quite quickly.
Lucien: the other humans also assess non-verbally already by laughing.
Lynn: non-verbal response to the assessment by Vero, smiling and shifting gaze.
Hannah: this could also be a response to Vero using Hanna's name, which is not that common in (these?) videocalls. Or perhaps the immediate shift to Tara.

Lucien: Perhaps the way Vero switches to Tara

Saul: seems to be an orientation to one-at-a-time also oriented to letting the system talk. Active silences in which things happen but not speech. E.g., lines 26-27. You see timing issues common in video calls. Interesting orientation to the device, leaving space for it. Would be interesting to look at more data if there is a pattern in this regard. Also in interaction with Nao robots, I don't know if you looked at that already, but there too people orient to these systems (VUIs too) kind of sucking at turn-taking.
Would be interested to see the WoOz set up also.
Brian: Overall comment: This is complicated data in many ways. What is clear from this data excerpt we can say they treat it as a robot. As such I think it is a nice example of a robot passing the Turing test. That is a member's perspective, right? We have a robot that is extremely well-functioning and they are treating it like that. But we know from reality, from the setting, that this is not the case (because it is WoOz), if it was a device there would be more trouble.

Another comment: going into the analysis, what I think is really interesting. In the beginning of my career I did a lot of work on creative development, how ideas develop. I tried to imagine if this was actually a robot, it would be really nice if the robot could move forward the creative process. The suggestion of a drumstick does that, it gives creative input. The guitar pick idea builds on this suggestion by the AI. It doesn't matter if we treat Vero as a human or a computer, because it is part of producing a creative idea. That is a way to dislocate what we see from the WoOz complications for analysis.

Lastly: the visual aspects of this kind of setting. You didn't transcribe the material properties of the robot, the movements it makes. How I see it, these movements are done only when it is speaking. But it could also project future actions, e.g., starting to take a turn, using it's movements.
Hannah: really interesting, they were playing with different animations. In a Zoom setting sound is not really good to use. That was what I was interested in, how can Vero even enter the discussions, and we see in the data that the participants call Vero into the discussion in VUI like ways ('Vero, what do you think'). The designers tried a nodding kind of movement.

Mathias: About the address times, that is not only from speaking with artificial agents, but in mediated interactions of all sorts, including TV interviews I've been studying two decades ago. Having an address term upfront is crucial for establishing proper recipient, it is interesting to observe that here at play too.

Just to come back to the discussion of the privileged participant. I wonder if this is sort of representative of… Do you also have data in which the three human participants talk amongst themselves with Vero accessible as a resource, but not used as a resource. One detail I observed is that the lower left girl is taking a sip of her drink at one point, as the girl who was called out is obviously addressing her response to Vero. I would perhaps analyze the sipping as moderating the recipiency.
I also would not have been surprised if people were doubting the robot being really autonomous. E.g., what happens after line 20 is really complicated, so the timing of the Vero is really advanced actually.

Damien: Maybe what Saul was calling the orientation of one-speaker-at-a-time could be explained by the asymmetry of one person (Vero) having no webcam, and three with webcam on (the human participants). Perhaps what we see here has to do with visible access, the person without video does not have non-verbal visual resources to show willingness or availability to speak.
They are not orienting towards the visual indicator I think, they overlap in spite of the Vero movements, so they do not appear to orient towards that.

Hendrik: I want to come to something that Mathias brought up: are they buying this is a robot or not. I think the behavior, giggles, laughs and such, perhaps tied to them not knowing each other. I think there is also a feeling of oddness of speaking with a thing despite other people being present.
Hannah: this was definitely one of the groups that progressed through the tasks, there were also groups that went less smoothly. From a design perspective pretty nice, because this flows relatively smooth.

Lynn: building on Damien and Hendrik, I also think the reverse is happening, where Vero not responding to the giggling, smiling and other expressions, also informs the participants behavior. Vero is not holding them accountable, either verbally or non-verbally, which informs about Vero's perception and/or feelings.

Next step. We are going to get up throw an invisible ball to each other, warm up voices. We vocalize 'ma' when we through the ball.
Next two common things in design: video prototyping. Common to record a video of a potential robot.
Vocal sketching is also common, which we done already in a way.

We are going to replay the clip and now vocalize when we feel it would be a potential good moment to sigal 'I'm here'.

This is where I tried with a roboticist work from a specific clip to see 'how can we get Vero to show something else than hovering there in silence for 30 seconds'.
I have a transcript of this exercise we just did, I'll show you a clip.
Hendrik: reacting to video is something people have tried, to figure out what is the right timing. That apparently has worked out quite well, though people differ of course. Usually when you do parasocial interaction, you are the recipient of something. Here, we are looking at a dialogue of more people, so there are already continuers done by participants. We are

now asked to put ourselves in the position of the robot as well. I personally found it very difficult.

Saul: famous paper ‘Listiners as co-narrators’. Difficult indeed, also due to Zoom setting, where you for example don’t regognize gaze direction and such. Very complicated setting. Gabriel Skantze, attention monitoring systems. Different markers of attention that you could be able to automate. You could expose features to show internal workings of the machine, to expose certain things for HRI.
Hannah: Yeah, I think this might be less surprising or revealing for interactional experts. Designers responded very differently.

Lynn: gestalt factor, difficult to do the sounds due to the floating + frontal aspect informing much of how the sound is interpreted.

Yujin: I think you could also do things with colours. Presuming participants use their laptop or computer, they could perhaps opening multiple programs on their monitor. Despite participant’s camera and WoOz status, I think in real-world setting, the visuals of the AI could be relatively small, so subtle movements might not be best.
Also, in my research team we did some experiments with sumsum Bigsby? as a virtual assistent that uses sound to indicate when the program starts to recognize the voice (listening cues). It took about 1-2 months to notice which sound indicates what (stopping vs. starting listening). Although it sounds very effective in theory, in reality it doesn’t have a lot of effect.
Lynn: also relating this to your work Hannah, I recall that Nao listening cues were also ignored (cf. overlap) but that Cozmo’s bleeps were oriented towards as turns. Perhaps related to language use vs. only non-verbal cues by the robot. Repetitiveness is also a factor I think.

Hannah: yes, I also think from experience that it has to do with human-like sounds vs more machinelike sounds, the latter being ignored more.

EMCAI meeting January 27, 2023

17 participants

General Info:
Welcome and round of introductions - please update your slide in the introductions slide deck
We are planning to meet about once per month, generally on the last Friday of the month

Next meeting: February 24th, data session (please message us to sign up!)

Discussion session
Lynn briefly presents the work-in-progress manuscript Artificial intelligence as situated action: A scoping review (Jakub Mlynář, Lynn de Rijk, Andreas Liesenfeld, Saul Albert, Wyke Stommel, Renata Topinková)

Discussion of the paper (please feel free to edit if you feel you have been misrepresented or if details are missing)

- **Antonia:** surprised that Lucy Suchman is cited so little. Garfinkel didn't work in this area but got referenced more.
  Also, with regard to table 1, perhaps it is interesting to include experimental set up vs non-experimental set ups as well. Now you only have public settings as a category.
- **Jakub**: Garfinkel was working on ELIZA (not published), forthcoming paper on archival studies.
- **Antonia**: one suggestion then. If you say it is about methodological reasons Garfinkel and SSJ are cited more than Suchman, it might be interesting to have the first five most cited sources instead of the first three.

- **JP**: Suggestion to categorize also based on the research angles in the papers, what are the authors trying to tackle? E.g., studying humans where robots are present, vs. what happens when humans and robots interact from CA perspectives, vs implementing principles from CA in AI
- Choose the publishing venue early on, this greatly informs decisions on terminology.

- **Ole**: public space - why does it involve schools hallway vs. classroom?
- How do we account for fragmentation of who is cited and who is not?
- W.r.t. the title: AI in vs. as situated interaction? AI as a partner in interaction.
- **Jakub**: I think the most ideal way, as Garfinkel would do it, AI in as and of situated interaction. But that's confusing, so perhaps we will opt for *in*.

- **Stuart**: Suchman was read as a critique of assumptions of HCI, user modeling through cognitive models, read in different disciplines, picked up by e.g. STS communities, EMCA shaped by discourses they sit within, reading of Suchman in HCI.
- About the title: *In* is probably better, because when is action not situated from an EMCA point of view?

- **Mathias**: who is the addressee of the paper, we shouldn't only try to reach out to other audiences but also move forward in EMCA quest as a particular kind of activity.
- With regard to the DMCA review you received: the irony of this work as a non EMCA method to review studies should not be taken too seriously.

- **Hannah**: paper growing out of the network, for the community rather than outsiders?

- **Andreas**: Eurocentric perspective, are we missing Japanese, other languages?
- **Lynn**: Russian community could also be invited
- More general discussion of language barrier for reading work; we agree we should reach out more to different language communities.

- **Saul**: the goal of the paper is maybe more missionary; studies of particular behaviors in a condition, robots being "there", studies of application of EMCA concepts in language technologies.
- **JP**: if it is missionary, emphasize positive examples of EMCA in AI.

- **Stuart**: job to do to work on the conceptual side of work, Button on computers, mind and conduct on fundamentals of AI.
- **Jakub**: Agreed, EM perspective has been taken aside a bit more because of focus on empirical aspects. Tried to include in introduction and discussion, but it is hard to make it work as a paper with so many different angels.
- **Ole**: artificial-ness of AI is highlighted in more conceptual works, maybe this could be drawn on. Potentially you could add conceptual work on specific parts of the discussion, where you note specific trends.

- **Hannah**: reviewing other's work that is taking up EMCA concepts can be tricky, because they use terms in a different way than we do (perhaps you could even say in a wrong way). I think you can highlight how EMCA is using these concepts in contrast.

- **Saul**: why so many robots?
- **Damien:** competition regarding vocal agents: EMCA is often called as last resort when no other method works to make sense. For robots, perhaps it is more obvious that there is an emerging phenomenon that is linked to situatedness that can convince funders? Vocal agents: is it more linguistics or engineers? I know with chatbots, a lot of it is IT work. Perhaps something about chatbots that makes them easier to study.

- **Nicolas** in chat: I think doing an analysis of how some PHD students in Social Computing, machine learning, actually integrate (or try to) EM_CA concepts such as pre-closing, how they struggle regarding modelization, might enhance the EM/CA view about the thickness, multi-layered aspect of social action.

- **Antonia**: I recall when chatbots were not taken all that seriously, and we thought they wouldn't last long. Perhaps check other fields like workplace studies for technologies you find underrepresented in your corpus.

- **JP:** Ezra Klein podcast with cognitive scientist Gary Marcus on chatGPT3, critical analysis of what they cannot do. If you look at EMCA this is at the intersection of this: https://www.nytimes.com/2023/01/06/podcasts/transcript-ezra-klein-interviews-gary-marcus.html
- https://www.nytimes.com/2023/01/06/opinion/ezra-klein-podcast-gary-marcus.html

- **Lucien**: When doing this kind of review of (EM)CA applied to AI, the authors mentioned that they encountered some "naive" uses of CA concepts. Maybe we can learn from the field of healthcare where the same situation has been encountered (and reviews have been made, e.g. Parry & Land (2013) https://pubmed.ncbi.nlm.nih.gov/23721181/)

- **Saul**: Perhaps we see more robots because of naive understanding as "conversational AI" (thus tied to our working notion of AI)? Interactional vs pre-categorizations of roles (e.g., Virtual Agent is assigned therapist role, not very EMCA)
- **Ole**: autonomous - appear as autonomous, how is autonomy achieved vs. labeling; setting also matters - experimental setting sets up expectations, excludes certain possibilities for what could happen.
- **Lynn**: how robot is introduced matters a lot, some studies in the corpus touch on this
- **Jakub**: the work to make AI work
- **Damien**: human-human-robot interaction

- **Hannah**: which terminology to adopt, participants perspective or that of engineers (HRI/HCI); to Lucien: how to dell with what is CA and what is not? How to deal with people copying the approach by looking at others. How do you deal with those studies, do you exclude them, does that 'fly' within the interdisciplinary community?
- **Lucien**: phenomena in other domains - what is difference between EMCA and CA-inspired analysis. Also perhaps doing this 'violently' reifies people's approaches.

- **JP**: put label on robot and say it is therapist and then it is a therapist - often psychological perspective: you are the boss, you are the employee. Assumption: immediately act like this, missing interactional achievement
- I think it's unavoidable to be a little bit of an inquisitor as Saul put it. These a priori categories are a little weird in that sense and I think you need to be a little critical of that sadly.

- **Wyke**: definitely writing a missionary paper, trying to address broader audience; use of transcripts as boundary settings for what is CA (in health care domain, where this is an issue as well).

Final thoughts

- **Ole**: if it is a missionary paper - what is the audience supposed to be convinced about? Make clear what is the mission
- **Lynn**: what is the takeaway message of our field?
- **Saul**: bring the good mission

- **JP**: if you want to sell something: look “bad robot” - CA people get involved -> “good robot”, similar in healthcare apply CA to get better outcomes - collect good examples
- **Damien**: we have a lot of destructive stories, where a robot is labeled as social but we show it actually is not, this can scare engineers. However, do we have enough quantity? We are more focused on attacking than building, supports Nicolas’ suggestion to focus more on how it goes when PhD students implement CA;
- **Hannah**: maybe not necessarily quantification but at least providing practical examples
- **Ole**: re-write section 3.2.with examples that work or don’t work? What can designers take out of this?
- **Wyke**: selling more
- **Jakub**: thanks for comments