AI ETHICS

Artificial Intelligence and the African Philosophy of Ubuntu

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In this lecture, Dorine van Norren looks at the implications of Ubuntu philosophy on AI ethics. She begins with an overview of Ubuntu, explaining its central idea of "I am because we are". She then looks at the COMEST principles, which informed the 2021 UNESCO Recommendation on the Ethics of AI, drawing comparisons between the Western or Global North's approach to principles with that of the Ubuntu philosophy. Through this exercise, she makes the case for a more inclusive approach to AI ethics and raises key questions to guide future discourse in this space.

Lecture Transcript

0:00 Welcome, everyone, to my lecture on artificial intelligence and the African philosophy of Ubuntu. And I subtitled it with a question, or Ubuntu relationality and humanization versus alienation of artificial intelligence? We're going to talk about this question and this topic and you can draw your own conclusion later on. I love this picture that you see, which is the picture of the consultation on the Sustainable Development Goals in 2013, which was done on the subject of culture. So, this is the one done in an African country, and you can see how people sit, not in a conference mode, but sit together and share their ideas. Next slide.

0:54 So, my talk will be derived from my PhD, which was not on artificial intelligence, but it was on law and development studies. And I titled that: Development as Service: A Happiness, Ubuntu and Buen Vivir interdisciplinary view of the Sustainable Development Goals.

1:14 I do that right now as associate researcher of the Van Vollenhoven Institute for Law, Society and Governance, Leiden University, but the PhD was done in cooperation with the University of Tilburg and the University of Amsterdam. So you can see I looked at three world philosophies, one from Bhutan, one from South Africa, and one from Ecuador, and how they intersect with the Sustainable Development Goals. From that I derived the idea to look at artificial intelligence and Ubuntu. But I warn you, I'm not an artificial intelligence expert. I'm a lawyer and philosopher and I've also looked at economics but this will come back and my talk is titled "Development as Service", because in both, or in all three philosophies, the idea of reciprocity or mutual aid is a very important idea. Next slide.

2:11 So here you see the title again, Development as Service: African Ubuntu, Buddhist Happiness and Native American Buen Vivir. We will only be talking today about African Ubuntu. Can we have the next?

2:25 So in my thesis, and in my article that I subsequently published on the thesis, I conclude that the African philosophy of Ubuntu which is basically an Africa-wide philosophy, but the word Ubuntu is specifically from the Nguni languages in southern Africa. That philosophy is actually opposed to the modernist notions of development. And those notions of development are underlying our economic system, and also our government governance system. So the modernist notions of development includes the idea of sovereignty of humans over their environments, the idea of the centrality of individualism, centrality of the concepts of freedoms and rights rather than duty and boundedness, the idea of self interests, leading to the market giving us collective welfare. Central is also very much the concept of private property, rewards based on merits, materialism, and quantification of value and the instrumentalization of labor, for the market for production processes. So these are, of course, a little bit abstract in the sense that different countries implement them in different ways. So none of the countries are at the extreme, but it is still the underlyings of our economic system.

3:54 In addition to that, we had Amartya Sen publishing his book on "Development as Freedom". And in "Development as Freedom", actually he articulated the idea of the capability theory: how do I live the life that I value, which is the idea of a human centered economy and not so much a growth centered economy. But still, Amartya Sen has an individualist approach to development. Therefore, I used the title of his book, "Development as Freedom", and rephrased it in "Development as Service". Next slide.

4:41 So I'm going to tell you first a little bit about the Ubuntu philosophy. And Ubuntu philosophy is not a written philosophy, so you will have to analyze it through the grammar of the languages, which of course relates also to AI because you use language in your programming. And then you can also learn it through proverbs. So Ubuntu, in popular saying, actually means "I am because we are". I am because we are means I'm a person through other persons. I realize my humanity through other humans. It's therefore a collectivist relational world worldview.

5:19 And if you analyze the word "Ubuntu" itself in grammatic terms, it is about the abstract being which is called "Bu", and the lifeforce being which is called "Ntu". And together if you put the word "a" in front of it, it is Ubuntu. You see, therefore, that Ubuntu underlies the grammar of the entire language."Utu", I've translated for you simply a slight enfolded being before it manifests emotion and "Ntu" which is temporarily having become but since that is a very abstract way of describing it, I've made it abstract being and lifeforce being. So, that I have summarized in this little drawing where the abstract being is the black circle, the lifeforce being are the yellow stripes in the middle. And then, for example, if you look at the word nature, the word nature is the word "Kintu". So the word "Ki" which is nature, in abstract potential, and "Kintu" is a nature that has been realized in the world because it has become a living being. So in this you already see that the grammar of the African languages postulates that everything is alive.

6:33 Now what is very interesting are the purple circles below, in which is described what African people consider the human community since everything is arisen from the community. And in the middle, you see the dark purple circle, which is "Muntu" or "Bantu". "Bantu" means people. Again, you see the word "Ba"-people in potential-before they're there and the "Ntu" which brings them alive. But it's not only the people who live now, but it is also the people who came before us that are part of the living community. So, those are the living dead or what we used to call ancestors. And other than that, you have the people who are yet to be born or the future

generations. In the African mind, all of these people together form the community of now. So, all your decisions are related to those who came before you, and those who are coming after you. Next slide.

7:34 So, here we see that not only is I am because we are very much connected with social relationships between different generations, but it is also connected to the earth. So you can say Ubuntu also means we are because the planet is. We are intrinsically related to everything that is alive. So one philosopher said that to care for one another implies caring for the physical nature as well. Without such care the interdependence between human beings and the physical nature will be undermined. It's a very rational way of understanding it. But there is also more spiritual ways of looking at it. For example, in the Sotho language to have the word "seriti", and the word "seriti" means a field which connects all living beings. So from the Ubuntu philosophy, everything is interconnected and everything is interdependent. Next slide.

8:37 So I also told you not only do we know Ubuntu philosophy through the grammar of the language, we also know it through African proverbs or African sayings. So in those sayings, and I cannot treat them all so I've chosen a few examples, Ubuntu redefines the place of the economy in society and the principles and it is much more oriented towards solidarity, community, inclusivity and reciprocity, hence development as service. The goal of Ubuntu is what one philosopher called "Mothofatso". Mothofatso means a continual humanization, so humaneness or compassion or being through the other person, becoming one with the other person, and and becoming one with your community.

9:25 So for example, there's the saying, "If faced with a choice between wealth and the preservation of life of another human being, one should choose the lift of the other". So what does that mean? Faced with a choice between wealth and the preservation of life? It actually means that the sharing goes above wealth and the principle of mutual aid is much more important than the principle of self promotion or social mobility, for example. So the idea of sharing and mutual aid is a core principle of African thoughts. Another idea is expressed in the following proverb: "No single human being can be thoroughly and completely useless". So it means everybody is part of our human community and it means that Ubuntu is inherently inclusive. So whether a person has a criminal record, whether they're ill, whether they have a handicap, or whatever mental affliction they have, it doesn't matter, because they're all part of the community and all part of humanity, and everybody has a role to play within that community. It's also an idea that society is very much geared at reconciliation. We all know that, for example, through the Truth and Reconciliation Commission that we had in South Africa. So it's not only about retribution when someone has committed a crime, but it is also about reintegrating people within the community and enabling them to play their role.

11:08 I come to a third expression and last one: "What the elders see while sitting, the young ones standing on their toes won't see". I'll come back to that later. It actually means that the elders have more wisdom than the young people. And therefore it also means that there is a process of intergenerational learning or a process of becoming a person. So it has a relationship with what we call moral personhood. So you're not born with moral personhood, but you acquire moral personhood, through the deeds in your life, and the deeds in your life should be geared towards what benefit is for the community. So if you do not contribute any benefit to the community, basically, you do not acquire moral personhood in your life. And the young can therefore learn from the wiser elderly, in acquiring that kind of personhood. So next slide.

12:12 Now I come to Africa and artificial intelligence. And I've put here two pictures: one is of the member countries of the G20. And you see there, South Africa. And then the pink ones are the guests, so the temporary members. Now there's, of course, also talk of the African Union becoming perhaps a part of the G20. But you see that the G20, who issued guidelines, or who adopted the guidelines of the OECD as leading principles on artificial intelligence, Africa is actually underrepresented in that global group. And you can also see that on the picture at the right side, in which some researchers analyze where all the documents are produced on artificial intelligence. And you see that the continent of Africa is basically empty, and it's dominated by the United States and European countries. So in the literature, I found that some of the problems that Africa is facing is that the artificial intelligence applications are not contextualized to address the most pressing needs of the African continent; that they pose cybersecurity issues therefore. And I added to that it also does not incorporate African ethics, so therefore, I want to continue my talk mostly on the problem of African ethics because most of the literature addresses more practical issues of what Africa is struggling with in terms of digitalization. Next slide.

13:59 Okay, so a few points on AI and Ubuntu, and whether there is a possibility for intercultural digital ethics. I leave that up to the AI experts to consider and to include in whatever discussions they are having in the future. So my first question would be: How does artificial intelligence relate to the concept of mothofatso, the concept of continual humanization? Does AI contribute to this continual humanization? Does AI also mend the current flaws in economics and societies or does it accelerate them? Does AI development lead to more sharing in the world, or does it lead to less sharing in the world? I do not have the answers because I do not know where AI is heading towards. But we do know that the current economic system is spiraling inequality to an unprecedented level, which is fundamentally opposed to the idea of Ubuntu I am because you are.

15:10 Now, if we take, what the G20 said not only when adopting the OECD guidelines on AI, but it also mentioned what are the opportunities of artificial intelligence versus the risks. So as opportunity dimensions increase, increasing productivity, and taking over of tasks from humans. And then they mentioned actually more risk, and they said, it may also make labor redundant, it may lead to higher inequalities, and especially, it may lead to more power concentration for those who own AI. And we already saw in the previous picture, that all the literature developing on AI is in the Global North. Then, of course, there are the risks of military uses of AI, cybersecurity risk, many issues on privacy and ethical issues, and the problem of capacity building, a new digital divide being created in the world, if one continent is further ahead than the other one.

16:14 I'm not going to go into this, but I just wanted to mention it, because I want to build on that and say okay, artificial intelligence is developing and is rooted in the current economic system. And the current economic system is based on the ideas of modernization that we saw in one of our first slides. So it may risk of exacerbating existing inequalities. So it may also risk a further dehumanization, or further alienation of people from one another and of people from nature, since in modernization, we have created a separation between nature and humans. And we have created an artificial division between culture and nature, which does not exist in most indigenous languages, and also not in the African way of thinking.

17:10 Then there is the issue of privacy. Privacy is considered in the West or the Global North as an individual issue. And we all know, when we press on "Accept our cookie policy" that oftentimes, we don't really want to browse through that entire policy, and we simply accept. That is very much different from a collective protection, which you would want to see from the point of view of Ubuntu thought. So we first protect the interests of society

and community, and from that are derived the interests of individuals, and also of individual companies. Now, of course, when you talk about groups, there are many different kinds of groups that you can look at. And I think that also the conventional AI literature looks at that. So you can look at nation groups or ethnic groups. But you can also look at groups of people that face a common threat, or groups of people that have a common interest. So if we apply privacy to the adage I am because we are, we can also say I am datafied, because we are datafied. So I as an individual do not really have a choice anymore, because we now live in a datafied society, and I'm part of a datafied community.

18:31 So I give you that as a point to think about. Then I want to say a few things about the idea of transhumanism, and how that would be seen, I would think from the African point of view, which of course, perhaps also African people may diverge on opinion about. I see the idea of transhumanism also rooted in the modernist way of thinking. So the idea that robots can replace humans, or at least create genuine intelligent intelligence or what you call strong AI, strong Artificial Intelligence. It presupposes that intelligence can be separated from the body and that intelligence is individualized. Both ideas are seen differently, I think, from the Ubuntu philosophy. It's very much rooted in the idea of Descartes, who said "Cogito Ergo Sum" in Latin. And that means: I think, therefore, I am. So therefore my personality or my being is located in my brain. That is a very different idea from the African idea of we feel connected and therefore we are, so I am because we are.

19:50 So other than that, you can also say that a robot or AI does not have this idea of "Ntu" (the life force) or I can pose it as a question: does AI have "Ntu"? So in Ubuntu, the meaning of life is derived from living through other people and connectedness and feeling engagement with the others. So intelligence in that sense may also be collective and not only individual. Intelligence may also be a product of relational being. So the question then arises, what is consciousness? Is our consciousness located in our brain? Is our consciousness located in our heart? Is our consciousness individual or is our consciousness collective? I give you these as a point to think about because I think nobody has a true answer about what's going to happen in the future. But I do believe that there are different ways of thinking about issues of transhumanism, and that not in all world philosophies, the idea that intelligence can be separated from the body and the brain can be separated from the heart or from the emotional thinking, whether that is really possible. Next slide.

21:12 So a few final considerations before I go to the UNESCO principles on AI. So I want to give you a few questions to think about. So do robotics aid in weakening or strengthening social cohesion in society? Is current AI promoting an individualist behavior? Or is current AI promoting collective well being? Does the technology of AI contribute to more equality and inclusion or does it enhance more individual gain? Do robotics address African philosophy of care and personhood? And then I also come to what I said earlier about the elders knowing what they know sitting, and for young people they can't even see it standing on their toes. So do robotics address this philosophy of personhood and care or do they address more practical efficiency in modern society? For example, administrating medicines to patients or elderly people. From an African point of view, one would say in the terms of care, there is a meaning in the mutual aid and the relatedness of care. So it's not about only practical efficiency of administrating a medicine or helping an elderly person to sit down. It is about the elders having an elevated status in society and having an elevated status of personhood, so a moral personhood, when they have lived their life in the right way. And in that sense, in care, there is also an intergenerational learning aspect. And a fourth point in the idea of care and personhood is also that from the African point of view, people are preferred to be kept

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in the community when they're ill or when they're suffering from a mental affliction or in other terms. So how does AI foster this interconnectedness and bonding within the community?

23:34 Then the more practical points. I talked about how African philosophy is totally embedded in African language and African grammar, and that, of course, also counts for other indigenous languages, for example. So are we going to do the AI programming only in English? Or will we also include African languages, and thus African philosophy, in computer programming? Or do we feel that English represents a universal reality? And to say one more point on that, for example, English is a noun based language, so it's very much geared towards end results. African languages are motion based so they are verb based languages. So that is much more focused on living in the now and that for example, shows itself also in how we formulate Sustainable Development Goals, which are less geared towards the how and more geared towards the end results. So it has huge implications, what language you use, in terms of what you want to express.

24:42 Then of course, there is a question that I think many struggle with is whether AI will replicate existing bias or whether it will diminish existing biases? Will it make bias more transparent? Or will it make the biases more opaque? Now, we had an issue in the Netherlands, where I am from, where the tech servers used certain algorithms and those algorithms actually labeled more people of color and more people with a migratory background as possible frauds, which led to a huge crisis, basically, between society and the tax inspectors, for which actually even the Dutch Cabinet had to resign. So algorithms can have a huge impact on society.

25:33 Now, I want to move to the last topic of my lecture, and that is the question: is Ubuntu adequately reflected in the UNESCO guidelines on artificial intelligence. UNESCO is the global UN organization for culture, science and education. And they issued the first worldwide guidelines on artificial intelligence, so not the EU guidelines or the OECD guidelines, but the worldwide guidelines. Next slide.

26:03 So preceding those guidelines, the UNESCO Scientific Committee commission actually issued a report and that commission is called COMEST. And the report was issued in 2019 on the ethics of artificial intelligence. So COMEST is a French expression, which stands for the World Commission on the Ethics of Scientific Knowledge and Technology. So basically, it discusses ethics of technology. Coincidentally, the chair of that commission was a Dutch professor called Peter Paul Verbeek. At the time, he was linked to the Twente University. Now he's with the Amsterdam University. And he was also a member of the Dutch UNESCO Commission. So in 2021, the UNESCO Recommendation on AI appeared. And my analysis is actually on the COMEST report, which was one of the main inputs to draft the recommendation. Next slide.

27:11 So here we see the COMEST principles. There is a second slide with the other principles. And in the article that I published, you will see a comparison between the COMEST principles, the OECD guidelines, the ALTAI guidelines of the EU and African Ubuntu. But since I can't project it all on the slide, I've only put here the COMEST principles and the Ubuntu principles and approaches. So I'm going to go through it very quickly.

27:50 First, one of the COMEST principles is about human rights. And if we would reason that from an Ubuntu perspective, who would say, it's not only human rights because it's often very individualist, but it's also about human relations. And human relations include future and past generations as we saw because that's all the

community of now. Secondly, the principle of inclusiveness. Ubuntu is basically inclusive in itself, it is inherently inclusive. So to use the word inclusiveness actually means that your side is already not inclusive.

28:18 Thirdly, the principle of flourishing, which is really interesting, that that is mentioned, because I'm not sure whether they mean individual flourishing or flourishing of the community, and it's also not made clear in the report. So as a professor Peter Paul Verbeek once said, "Different delegations may also read different meanings in what has been articulated". So in the idea of Ubuntu, flourishing is about the well-being of the community and about humaneness. So, how do we relate to one another? How do we identify with one another, and with everything that is alive around us? Then we have the principles of autonomy, explainability, transparency. All of those would be geared towards the group. So the group comes first, and an individual's interest is represented also in the group interest. It doesn't mean that individuals do not exist, but there is a different hierarchy than in conventional Western or Global North thinking.

29:26 When we talk about awareness and literacy, it says algorithm awareness and a basic understanding of the workings of AI are needed to empower citizens. As I explained from the Ubuntu point of view, education is about moral personhood benefiting the group, so that goes beyond only algorithm awareness, but it goes towards society having to be actively involved in the ethics of the algorithms, in order to make sure that algorithms create moral personhood. Moral personhood is the goal and not cognitive learning. Not that cognitive learning is totally unimportant, but it is not the main goal. The same counts for responsibility. It says here, developers and companies should take into consideration ethics when developing autonomous systems. I think there's a word missing here. So again, Ubuntu stresses the duties of everyone towards society, and therefore also the duties of everyone towards the benefits of AI. And then, of course, the question comes again, who benefits from AI developments and does it increase the principle of sharing? Next slide?

30:48 The other, what is it? The 1,2,3,4,5 principles of COMEST were responsibility, accountability, democracy, good governance and sustainability. Again, I've mentioned the duties towards society in the idea of responsibilities. And then I want to say something more about democracy, because the idea of democracy as a representative democracy is also not a uniform idea. Participatory democracy and consensus building is a very important principle from the African vantage point. So also discussions about democracy cannot be a monocultural discussion, because there are many views on democracy.

31:34 Then, in terms of good governance, I already explained that to contribute to restorative justice and nation building is very important from the African Ubuntu philosophy point of view. So everything is geared towards restoring relationships within society. That goes beyond government should provide regular reports about their use of AI in policy, intelligence and security. Then, lastly, sustainability. I always find it a really interesting point. Sustainability in itself is a Western word, just like environment is a Western word, because it presupposes that environment is something that environs the humans, whereas in many other philosophies in the world, the environment is called, it's not even called nature, because often the word of nature also doesn't exist, but it is something that we are ourselves - nature.

32:35 So for all AI applications, the potential benefits need to be balanced against the environmental impact of the entire AI and IT production cycle. I think it's a beautiful principle. But if you would say principle from Ubuntu perspective, it will be the respect for and living in harmony with nature, and the future and past generations as

linked to the earth. So both the future generations are linked to the earth, because they're the ones who are in need of the future resources. And the past generations do not go to heaven, but they go to Earth, so they are linked to the left. So I want to leave you with these few thoughts and go to the next slide.

33:15 Yes, so the idea of universal principles, is it a good idea or a bad idea? I have no true opinion about it. I just want to say that when I look at the UNESCO AI recommendation, which was based on the COMEST report that we've just looked at, there were no amendments made by African countries. So you can see the drafts, the documents online, of the different stages of the negotiation. So there was a draft made up by the Central Secretariat, I suppose, and then member countries can contribute to the redrafting of it. So that comes back to the point, is there enough capacity? And even if there is enough capacity, are we only involving AI experts that have often been trained in the Global North or do we also involve African philosophers or African ethics?

34:06 So the universal rules lack diversity. So that's a thing that we need to take into account and we need to find ways to integrate different ontologies. One way of doing that is also to integrate counter hegemonic thoughts and to think about the underlying philosophies of what defines our economics and what defines our governance systems. Those are not cast in stone, even if we are often made to believe that the term economics is cast in stone and has become a hard science. So other than that, it's important to combine top down rules, so universal principles, and bottom up deep learning based approaches. You all probably know more about that than I do. So my last point to say is that to integrate philosophies and cosmovisions of the Global South is really important and not just artificial intelligence experts. Next slide.

35:10 Since I am a lawyer and a diplomat, I am also actually an artist. So I want to close with an artwork in which I've represented the idea of Ubuntu connectedness in an artwork in which you can see a lot of humans connected with one another, humans connected with nature, but also the mystic aspect of African culture symbolized in the Voodoo and the "Ntu" lifeforce in the golden beard of this face that looks at us. So I want to thank you very much for your attention and I hope I have contributed something to your further deliberations on artificial intelligence and ethics. Thank You!