

Inclusion, Diversity and Internet Accessibility with Jutta Treviranus

Fri, 2/5 7:49PM • 51:27

SUMMARY KEYWORDS

students, diversity, create, inclusive, people, design, program, university, world, system, thought, recognizing, majority, barrier, learn, individuals, work, bit, companies, support

Zoya (host)

Hello, and welcome to another inclusive conversation. Today we are talking to the fairy godmother of inclusive design Jutta Treviranus. So, Jutta is a renowned researcher and a world expert in inclusive design. She is the director and founder of the Inclusive Design Research Center, which began all the way back in 1994, at the University of Toronto under a different name. And then in 2010, she moved the research center with her to OCAD University, which is the alma mater of both myself and Tania. And in the same year, she also established our graduate program, the Master of Design in Inclusive Design. Jutta's work spans inclusive design, accessibility and social justice. And her impact is incredibly profound. The breadth of her research that has been conducted, both past and present is truly astounding. And I think I speak for all of Manifold when I say that we feel incredibly fortunate to be able to grab some time with her, because she is certainly in high demand. And I think by the end of this episode, you will understand why. So, without further ado, here is an inclusive conversation with Jutta. Well, thanks so much for being here with us.

Jutta

My pleasure!

Zoya

So, one thing that we were talking about when we were preparing for this chat was that, like, we all kind of, we know you as this, like prolific researcher and kind of like a godmother of inclusive design in a way. (Giggle) And we've been through this program. So we know you in that in that sense, but we don't.. we wanted to know a little bit more about you as a person, and how you came to be like in this field like from your education, how did you start out and journey into inclusive design,.. and then starting this program and all of the research that you've done? Could you tell us more about that?

Jutta

Sure. Yeah. How far back do you want to go? (laugh) Well, I mean, usually when I'm asked this question, they ask, "How did you get into technology?" Because they discover I'm not.. I'm neither a computer scientist nor an engineer. And they say what.. well, you know how did you get into this technology world, because at the beginning of my career, I was frequently the only woman within many of the meetings or standards groups or development circles. And I trace it back to my first job after I

graduated from undergraduate. I had started out actually in medicine, and I did pre-med at U of T, but I didn't like the way that medicine asked you to.. or at the time, sort of treat just parts of people, as diseases,.. the medical model. And so, I then went into occupational therapy, which promised a holistic view, but I didn't like that either. Because the way that things were being taught it was sort of a very prescriptive, very didactic teaching. So, I caused a review of the program while I was still in the program, which of course doesn't make you very popular with your teachers. So then.. but when I graduated, my first job was at McMaster University. And there was an integration bill that had been passed, called Bill 82, which required that students with disabilities should be able to attend their home school. And so, McMaster University wanted to run a pilot program and I got to work with 12 amazing, prospective students. Each of the students had some barrier to participating in university, someone who was blind, someone who couldn't speak, someone who was Deaf etc. It was the sort of typical "here is a token group of 12 students" that they wanted me to work with. And it was somewhat serendipitous, and amazingly synchronous that at the same time...so this was the late 70s, early 80s... the personal computer came out. And so here we're talking things that are well before you were born, the Apple II plus the Tandy Model 100, the Texas Instruments, all of these personal computers. And I thought, Ah,.. here are amazing translation devices. It doesn't matter if you can't talk, because we can use some other movement that you can use to communicate with the computer and potentially then also have the computer speak for you, it doesn't matter that you can't see, we can create something that can read the text and speak it out for you, whatever voluntary movement you can make, we can translate into something else. So, I saw it as a way of diversifying the ways in which people could provide input and the ways in which they could receive information.

Of course, that to some extent, went a little bit sideways, I had these amazing.. like these utopian views that we were going to create this world where there would be a whole diversity of ways in which we could interact, unfortunately, that sort of veered in a direction of ...here are segregated ways that people with disabilities control a computer. And this is how everybody else controls it. The next thing that happened was.. I got.. I started to work with a group that was doing publishing. And because in the publishing world back in the 80s, there was something called SGML, Standard Generalized Markup Language, it's the granddaddy of... you were talking about fairy godmothers earlier.. this was the granddaddy of HTML, which of course, is the language on the web. And again, I thought, Oh, my gosh, look at the possibilities here. Because I saw it as a way of pooling or bringing together this whole diversity of content, of systems, of bringing people together, and being able to diversify the way that you consumed all of these things, or you interacted. So again, I thought, oh, here's a great sharing tool or a way of bringing together diversity. And, of course, again, what I was seeing was that it became commodified, it became commercialized, and we had these popularity metrics that started to become part of it. And so that wonderful pool of the commons, started to move away from diversity, and started to deny or lose sight of the complexity that was our world, and reduce it in all sorts of ways. So, both of those experiences persuaded me that I was right, right at the beginning, that diversity is our most valuable asset, and why are we, why do we keep denying diversity? And why do we deny that our world is complex and is changing. And we are creating all of these blind spots by virtue of reducing it. And we're doing that in every part of our life, whether it's how we do research, how we design, how we develop things, how we create markets, how we exchange things, in every case, what we're doing is we are reducing the diversity, valorizing or rewarding sameness and conformity or the average, the majority and competitively creating one winning, best, winner-takes-all thing that we're valuing. And at

the same time then, anything that deviates from that average, we're getting rid of, ignoring, lacking the understanding of etc. So that's where I came to inclusive design, that magic mix of supporting diversification and celebrating and encouraging human differences, or people differentiating themselves and leveraging the strength of the fact that you're different. And then the inclusion,.. the part where we orchestrate all of those differences, because that's the only way we're going to survive, is by pooling, and not reducing difference or diversity. And using those diverse perspectives, those choices that brings, in terms of knowledge and skill, to be able to deal with the really complex and changing, fluctuating world that we are in right now.

Zoya

Beautiful. That is so beautiful. And I was thinking about this utopian world, you imagine, once the computer became personnel. And it reminded me a little bit of, I think, a book by Isaac Asimov about I don't know if you've read him, the science fiction novelist. And I was thinking if this utopian world did it also inspire you to create this program, at OCADU, and were you also imagining, like, utopian way of teaching? Or what were your first thoughts about creating this program?

11:25

Yeah, so I had been teaching for about 20 years in various post-secondary programs. And I was very, very frustrated with the way that education was moving. In large part because of the way that education treated students who learn differently, in part, but also, because I was persuaded that we were preparing students to ... we weren't preparing students for the future that we were seeing. So, when I started the program at OCAD University, what I wanted to do was.. I wanted to do all of the things that I thought were needed to prepare students for the world that they would be encountering when they graduated, which is a complex world that requires diverse knowledge, diverse skills, and students that learn to work together. So -- teamwork – collaboration -- and I wanted students to be able to differentiate themselves from each other rather than becoming conformant, standardized, replaceable learners, and therefore replaceable workers within the work world that they would graduate towards. So if you look at our... certainly K to 12, or kindergarten to grade 12.. and even post-secondary education, what we're doing is we are causing students to competitively become standardized learners. In the way that we create exams, and we assess students, the way that we recruit them, the way that we mark them, the way that we teach everything that is being taught within our formal education system. And so the program that I started.. I wanted students to practice inclusive design in the process of learning about inclusive design. To co-create and co-design the education system together, and to create a program where, rather than encouraging students to become conformant, and standardized and ranked on the same scale.. for every student to discover how they were different and how they could differentiate themselves, what are the unique pieces of knowledge to learn, .. but then also to figure out how to work together with their fellow students to be able to orchestrate something that is greater than the parts. And so, the way I started the program... the first course that I wanted to start was called "Unlearning and questioning" and the idea there was that there was a ton of stuff that students needed to unlearn before they could actually embark upon this experiment, and the magic formula there was to bring together as diverse a group of students as possible, so not cherry picking the best and the brightest from the applicants, but how do we create a group of students that are so different from each other, that they will learn from each other. And so that bringing together these diverse perspectives,.. and whatever perspectives were not within the cohort, I tried to bring into the unlearning and

questioning as well. The intent of unlearning and questioning was also to empower students to give and receive constructive critique of their peers. Because one part of the barriers to orchestrating your talents is not to put down your fellow classmates or to try to be better than your fellow classmates. But to help your fellow classmates to become the best that they are, not to see it as something whereby if they do well, then you are lower down in the ranks. So the idea of ..we're all in this together, we sink or swim together, creating a cohesive learning community, and tackling real authentic problems. Not doing these disposable assignments, which are simply exercises to prove your mettle with respect to what the instructor wants you to learn, as opposed to what you feel would be something that you should learn, and a way that you can hone what you know to be your true skills, so that you can become a lifelong learner, because, of course, upon graduation, learning continues.--- (laugh) That was a bit of a muddled introduction --- but the idea was, let's allow students to differentiate themselves, work together, and cohere as a learning community that would then carry them through life. Because life changes all the time, and whatever you learned in school is probably going to be outdated by the time you graduate. So, you're going to have to update that all the time. And you can do that with the support of a whole diversity of peers.

Zoya

So, what I was wondering when you were saying how your intention for the program was, like, was it hard to actually pitch this to the university?

Jutta

Yeah. Oh, yeah. Oh, my gosh, yeah. I mean, we talked about.. in inclusive design.. that the third dimension of inclusive design is about complex adaptive systems, and we talked about friction points. And boy, did I cause friction points within universities, certainly, I had come from a much larger, more established, recognized University, the University of Toronto, and in part, when I moved the center, I wanted to move it to a much more scrappy, flexible, adaptable, smaller university that would be friendlier to these sorts of ideas; and a university that had a studio practice. Because there was a greater emphasis on individual skills. But what I didn't anticipate was that even that university was trying to become more like the other universities. And so, I mean, talk about all the things that went against University culture, recruitment, just picking students. So, the requirements that students had to follow in order to apply, they all had to follow this formulaic application. And then the gatekeeping, in terms of what students were "non-standard", because they didn't have the right language scores or their marks were not high enough, or their particular records from previous universities weren't the right kind. But those were exactly the students I wanted. I wanted the students that had been struggling. And that had faced barriers, because I was quite convinced, that those were the individuals that were the most resourceful, that were the most motivated, and that had the greatest knowledge of the barriers that people would face, that you would need to have to just design around, or address, ... And the marking, I mean, what I wanted to do was to have students be able to use tests and assessments or exercises and marking form formative views of their own learning, and to assess each other and help each other give constructive feedback that they could use. But of course, it was required that we mark everybody on the same scale again. ..and instructions, the way that we taught, so being able to take students out into our community and actually do things that were actually going to last, that were going to be productive, that were useful beyond just the university environment. And there, the ethics became a barrier, which you would think would not be a barrier, but our view of the people with disabilities, or

community members, as co-designers, was completely foreign, because the standard research practice was that these would be researched, passive research subjects, and the student or the researcher would be the objective viewer of what was going on. So, the thought that we would bring in the community members, as co-designers in the designs was something that the ethics committee didn't view as ethical. So, yeah, I mean, everything was a friction point. And, of course, the students came along with those friction points. And we depended upon,.. I mean, it was a bumpy, challenging journey for everybody.

Zoya

I think, probably my last question about the program. I think we were cohort seven, I think so.

Jutta

Yeah, I think so. Yeah.

Zoya

And I was, I mean, the program has obviously, overcome those friction points, to some degree ..

Jutta

.. to some degree, yeah..

Zoya,

So it's thriving, there's like cohort after cohort. And I know that like, in many ways, you sort of launched this program, and then it's, it's maybe it's like a child that's grown up in a way. You don't have to be as hands on in the in the same sense. I was wondering if you would ever want to,.. or think of returning to the program fully.

22:45

Yeah,.. so I'm, ..the way that academia works is if you're a faculty member, you get a sabbatical, so seven years, and it's sabbatical. And so,.. you go off and you renew your research and your interest in the topic that you're working in. Yes, I definitely want to go back into the program and do the next round of things. There are so many things I want to explore. Within the program, one of the areas that I'm really passionate about at the moment, and that has sort of taken off, is AI-ethics, -- artificial intelligence and ethics, because that is seen as the next techno solutionist wave at the moment. And I'm quite worried about the way that it's being applied and how it is ..well ..is accelerating ..and optimizing and amplifying as well, the exclusion of difference. And pushing everything towards this notion of the standard or the majority or the statistical average. And so, I want to infuse the program with that consideration. And I'm going to go back in and teach a number of programs there, because I think any designer that's graduating is going to have to deal with smart systems and artificial intelligence, smart cities, etc. And so, we need to infuse the curriculum with some understanding of that. I also want to create something that isn't in a single program, I'd like to bring together numerous universities and create a.. I guess... a learning program that extends beyond the years that people are in University, and that extends beyond a single University. One of the things that I was most frustrated about was just how we weren't able to support the students that couldn't afford University, whether it was moving to a city like Toronto where finding a place to live and supporting yourself while you're

there. And then tuition fees, which are, although lower than some countries, were still exorbitantly high. And so I..I had tried throughout to figure out how to support students financially. So, what I would like to do is to create a program that is financially inclusive as well. And I'm looking at a whole bunch of possibilities there. Both in terms of offering the content of the course and participation in the course, in such a way that you don't have to pay for it, that it can fit for students that can't leave their home. I mean, we had remote participation, but I would love to have a way..Yeah, yeah, you attended remotely... But I'd also like to make it more flexible as well. So that if you're supporting a family and having to work and take care of kids or elders, then you can still fit it in as something that is... where the program is as adaptable as possible.

Zoya

One of the interesting things about the program that I think stands out, but also, clearly the works this year in its flexibility is, you know, when the pandemic hit, we were in our final semester, and everything shut down, and then everything had to move remotely. And I noticed because I was taking classes that were in other programs, how different the impact was for those programs versus our program. I mean, pretty much it kind of, it really kind of disheveled things in other programs, whereas in within the inclusive design program, it was just like business as usual, in a way. So, 2020 has been like an incredible year. And this year, more than ever before, the survival of our connectivity, and our continued economic production depended on the internet. And we had that already in our Inclusive Design program. So, it was business as usual. We were wondering, we know as inclusive designers that there is a need to make the internet more accessible. And we were wondering, how can designers ensure that the internet is a global public resource and accessible to all?

28:12

Yeah, and that's a great question. That's one of the questions that I've been working on in a whole range of ways. And I think it has, we need a multi, a very variable and multi-perspectival approach. One of the things, of course, that we found is that the lack of prosperity and economic affordability is often a barrier. And so one thing that I've been looking at is working with governments and markets and economists to look at how do we address the rising disparity that exists within the world. At the moment, that sounds very utopian again, but this current strategy or the system that we've created, is taking us in a completely catastrophic direction, the more the haves get more, and the have nots struggle, the worse things get. And so, disparity is something that I think is at the root of, or one of the things that's at the root of so many issues, including our treatment of the environment, and the violence that is happening in places, I mean, a lot of things. All of these issues and barriers are connected, but One thing I think we have to address is to recognize that the internet is a common good. If it is a right to get education, it is a right to work, it is a right to have food, it is a right to be able to express ourselves. And the way that we're doing it right now is through the internet. And so the internet needs to be a common good, that is a right for everyone. And we can't use.... if it is the vehicle whereby we deliver those human rights, then we can't commodify it, and extract and payment for it such that there's only a certain group of individuals that can use it. I'm working on trying to figure out policy and supports. First off, we need to make the internet free. And then second of all, we need to be support people in getting the devices that they need to actually participate. And it means the work has an economic part to it. But it also means a different kind of market as well. So we need to shift the way that we commercialize and market and sell, advertise, distribute goods. Most of the devices that we have are unaffordable because

of the way that we've been marketing them. The less used devices are not interoperable with the standard systems. And so, the inclusive design comes in there, we need to be able to create an integrated, non-segregated system where you can support the full diversity of individuals. A whole diversity of devices can be connected to each other. And it's not difficult to do. It's just we are creating a system that serves the majority, the most popular, that amplifies that popularity that then causes anyone that deviates too far from that majority to not be served well. So yeah. And then we need to get at even more fundamental things like how do we plan? How do we scale? How do we design, and that's where inclusive designers come in, we need to design for diversity not design for the largest customer base. And we need to market in such a way that you get the whatever system we're marketing has all sorts of choices for recognizing human differences. We need to scale by diversifying not scale by formulaic replication, and everything needs to ...I mean, diversity is our greatest asset. And that's the only way we're going to get out of this crisis. I've been trying to express it in such a way that it's understandable by people that may not understand technology, or that may not be that used to technology. And one thing, one anecdote or one metaphor that has been working is, if you think of our world at the moment, the crisis we're in and what we're facing as a global community, what we're facing is a very, very complex adaptive terrain, that is in flux. So think of it like a landscape of mountains, where you have a peak that we have to reach in order to get out of the oncoming flood, but we're stuck on this small mountain. Because we think we have to keep climbing up, we think we have to optimize whatever we've done before. And so we keep going up, up, up, and it becomes steeper and steeper because we erode the slope, and only a certain number of people can make it. But what we actually need to do is we need to climb down from that mountain and find the real global optima, the real high mountain. And that means that the people that are down at the moment that are doing the opposite of that optimization that have a view to things that are not the top of this little mountain that we're currently stuck, on are the ones we have to depend upon. And so that applies to our market, it applies to how we learn, it applies to our communication systems, everything. Look to and follow the people that are currently at the margins that have perspectives we've been ignoring.

Zoya

That sounds like amazing. And I think like, as graduate designers from the program, we've been a little bit struggling with the business part of it. And how do we do that? How do we really sell the business case? And how do we market it differently in the sense of not using charity based action? How do we move away from that? I guess that's my question. Yeah.

35:55

I think that's actually quite an easy one. Because, if what...so I've been talking to quite a number of companies, and if what you are looking towards, is to survive as a company and thrive, to create a sustainable company, then what you need is you need to continuously innovate. And you need to create a system that is resilient, and that is adaptable. Quite often, companies and businesses say, "Oh, well, it'll cost too much to make it inclusively designed." But what we've discovered is actually that if you design for the greatest diversity of users, and especially for people that can't use or have difficulty using the systems that currently exists, that are within your market, then you are going to create a system or a product that is much more adaptable. So as the world changes, as tastes change, as people's needs change, and as you need to interoperate with new things that come into the market, your system that you've created will be much more adaptable. And then it'll survive longer. And you will

actually reduce the cost over more than the short term. If you only design for the largest customer base, for the majority, or a particular area, slice of that, then your system will become very brittle. Whether it's a service or whether it's an app or a platform, you will not have thought of certain things that might go wrong. And so there will be many more requests for changes to it, adaptations to it. And because you haven't created a system that's adaptable and flexible right from the beginning, it's going to reach end of life very quickly, because you will have to modify it and modify it and modified. And so it will cost a lot more. I think many of the larger companies that are surviving are recognizing that they need to have diverse perspectives be there, and that those diverse perspectives not only need to be served, but that they need to be within the company, they need to be the coders, the active code designers of whatever it is that they are producing. And those are the companies that are able to survive the changes that are happening here. So, business is starting to recognize the importance of inclusive design.

Zoya

Thank you.

Zoya

I was thinking when you were talking just now about the larger companies recognizing the need for diversity. This year in particular, because of so much that's happened in the world and especially in the States. There's like I find everyone is now talking about, like, companies are all talking about D&I diversity and inclusion initiatives. And it's become like a.. it's a big corporate push I find from a lot of companies. And I wonder I just wanted to get your perspective on this. But sometimes I find that companies are reactive, not massively proactive. Right. Now that they're, they're pushing these DNI initiatives. There's, it's feels a little bit like a buzzword at times like this. It's still a very superficial layer. And there's something deeper, that seems a deeper understanding that seems to be missing. And I don't really know what that is, but I thought I'd just throw it out and see what your..

Jutta

Yeah, I agree, many companies are doing sort of a performative version of diversity and inclusion . They are doing sort of the token formulaic version of it, it's like "we've ticked off this box. Now, let's check off that box." And that is, yeah, if they're not recognizing that it goes so much deeper into company processes, it's not something you relegate to a department "here, you make sure that we've ticked off this box." And there's another worry that I have, and that is, and this is one of the reasons why I focus a lot on disability, because one of the other things that I think is destructive of that diversity, inclusion, formula that we're trying to reach is the clustering or grouping of bounded categories of people. So fragmenting that diversity and saying, here's one particular group, and here these are the characteristics of this group. And people either belong to that group or don't belong to that group. And any one member of that group can represent all other members of that group. And, so that is, I think, a destructive conception because we're all very, very diverse and to create these bounded categories, and have criteria for belonging or not, belonging means that a lot of people fall between the cracks or get stranded at the edges of that category. And it makes it even more difficult for people that don't fit into those bounded categories to get included or to have the type of accessibility or inclusion that they need. And one illustrative place where this is happening is in AI ethics, which I was mentioning was something that I was looking at, because there's a lot of buzz at the moment about the way that artificial intelligence and smart systems are excluding anyone that is divergent or different. So, because of the

data sets that these systems have been trained on that there's algorithmic bias, that there are huge data gaps. And so we have water taps that won't recognize dark skin, we have a whole range of ways in which people are discriminated against by these automated decision systems. And that's hugely important. And we do need to address it. But the way that we're addressing it is by creating these bounded identity groups and saying, this is how these individuals are discriminated against. The way that we detect discrimination is to say, here is the way that the majority are treated. And let's compare it to the way that this bounded group is treated. Or the other way that we're addressing AI ethics is to say there's a gap. So we need full representation of all of the different groups. Those are both really, really critical agendas. But it misses the fact that if you have a disability, there is no single data point that is common to everyone. The only common data point is that you are sufficiently far from the average, that things are not designed to work for you. And so there's no way to use both of those tools that have been created to detect whether people with disabilities are discriminated against. And even if we have proportional representation of everybody with a disability in every data set, the majority will still rule. And so, it's not just addressing those current flaws within the system. We have to change the whole system. And that means not using big data, not using average or majority data, to make the decisions out there. We decide as to change. And even when we have personalization for disability needs, so even when we're using artificial intelligence to personalize voice recognition or things like seeing AI, recognizing our environment and telling someone who can't see that this is the male washroom, or this is the female washroom, or this is your medication... the individuals that live in areas that are not majority areas or that use products that are not majority products are again, losing out. The pattern is that the further you are from the majority or the average, the more you need these types of things, but the harder it is for you to use them. So we really need to address how we design almost everything, we need to start at the edge. And yeah, (laugh) you know what you were talking about COVID. I think one of the things we've learned is that whatever we did to be more inclusive, pre- COVID is benefiting everybody right now. And yes, we set up the program, such that people could participate from all over the world, we wanted people, different cultural experiences, different lived experiences, languages, etc. And to do that, we had to create a hybrid program that offered students all sorts of choice. And that meant that we prepared the program to be able to and yeah, it's a great example of how you create a resilient system, and you save money and problems in the long term by virtue of designing it, so it works for diversity.

Zoya

I was just thinking, one thing that we what motivated us in starting the podcast is, we were saying that a lot of people are well intentioned and have a real interest to be more inclusive, and to sort of do their part in changing the world, but they don't know how to actually do inclusion, so to speak, I'm doing air quotes. And for the average person who's not formally trained in inclusive design, or in this thinking in this way of being, like what is one single thought or belief that they could adopt, in your opinion, that would just help them self-help to set them on the right path?

Jutta

Yeah, I think the first thing is to recognize and value your own diversity, a lot of the exclusive sort of discriminatory stereotyping behavior comes out of a sense of insecurity, the feeling that you are not the best. This notion of the best, and that life is a competitive process where you, you know, when someone is up, somebody else's down, and that local hill that we're all trying to climb is something that

causing a lot of the negative behavior right now. So value, your own diversity, learn to differentiate yourself. And then the next part is, figure out how to orchestrate what you contribute to the world with all the other diverse individuals. Don't see other people as competitors, and design to include or to optimize to value that diversity is, together. So it's those two things, but you have to start with yourself and find out how you are unique, what unique thing you contribute to this world and then discover the unique contributions of others and figure out how to work together, to knit together in a bigger inclusive whole.

Tania

So I think like Zoya said, you are the godmother of inclusion. And here in Mexico, it seems like a godmother is someone that shows the way. So, I think like in the, it's like more setting a spiritual path. But taking it to design you do show a way to inclusion and it's great hearing you. It's really inspiring. Thank you.

Jutta

Thank you. And it's so lovely to see both of you. Just I miss all of you quite a bit. Yeah. And I'm so looking forward to see what you do as inclusive designers, I think you're going to do amazing things.

Tania and Zoya

Thank you. Well, we learn from the best.

Jutta

Thank you.

Tania and Zoya

Okay, so that is it for this inclusive chat. As usual inclusive conversations is presented by Manifold. You can find out more about us and what we are working on at hellomanifold.com for more information about Jutta or any of the projects she's working on right now, you can find her and all of that information at idrc.ocadu.ca. And all of these details are also in the show notes so you can find all of these links in the description. If you enjoy anything you heard here today, please consider hitting the subscribe button, wherever you may be listening to this podcast and if you feel particularly generous, please share this with a friend.