

AI and You

Transcript

Guest: Frank Stephenson

Episode 153

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Hello, and welcome to episode 153!

Today my guest is the legendary car designer Frank Stephenson, designer of the BMW Mini Cooper reboot, and the Maserati MC12 and Ferrari F430 among other models. He is now Head of Design at McLaren Automotive and designed the MP4-12C, the successor to the F1.

Now, you may be salivating at the mention of these sleek muscle machines, but also wondering, what does this have to do with AI? You're about to find out. Here we go.

Well, Frank, welcome to the show.

Thanks very much, Peter. Much appreciate it. Thank you for having me.

Oh, it's a pleasure. And you've got quite a storied history in car design here, including the Mini Cooper reboot. Do I have that right?

Yeah, yeah. I guess reboot would be a good way of putting it. It was kind of more like a rebirth, I would say, because that original Mini, or Mini Cooper, as they called them in the US is well it was born in '59. It was running out of gas by 1999, I guess you could say the car would've been illegal by 1999. So back in '95 they made a decision, BMW did, to whether or not to continue with the Mini or not. It was part of their new portfolio. Having bought the Rover Group, which was Land Rover MG and some other historic brands. And then of course, with Mini, they thought if we add Mini to the group, we'll have a small car segment. We'll have BMW smack in the middle as a sort of a volume manufacturer, and Rolls Royce as our upper end as our sort of luxury brand. And those three pillars would be a great strategy. So yeah, the rebirth of the Mini Cooper.

And then after that, there was the remake of one of my favorite movies, *The Italian Job*. What did you think of the, the remake with the Mini Coopers? For those people who don't know, the Mini Coopers features heavily in this heist movie.

Yeah, yeah. One of my favorite actresses in the film, and I have to tell you, Peter, I've never seen the film. I swear I haven't seen it. I've only seen the original, the one with Michael Caine.

Right, right.

And never got around to watching the new one. There's a reason for it, basically, why I haven't wanted to watch it we're, we're all pretty critical as designers about design and anything that comes around. And the car they used in the film was not my favorite Mini. The one I designed was the original entry level, as well as the Cooper and the Cooper S. But the one they used in the

film had a body kit on it, which was an accessory kit that you could buy after you bought the new mini, or specified it with that body kit. And I never liked that body kit, so every time I saw it

Sorry about that. Nothing can beat the original. Right. "You're only supposed to blow the bloody doors off."

Exactly.

So many, so many great lines. So, how did you get into car design? We haven't had any car designers on the show before, so I think people are going to be interested in that.

Well, it's seen as today it's pretty much a dream, dream profession because it's highly competitive. And you know, a lot of young people see it as a way of, you know, bringing their love of cars as becoming their sort of profession. But to get in it, you have to bring something a little bit different to the game nowadays. It has to be a bit of a uniqueness, I guess, to your style, to your, your way of seeing design and, and things. So back in the day when I was interested in car design, there weren't, or becoming a car designer, there weren't a lot of universities around the world that would bring you to that level of being a car designer. I had just finished, well, I hadn't finished. I was in the middle of my motocross racing career that I was very happy and very excited about. I was still quite young, but very, you know, into, into racing and doing fairly well. I was on, on the pro circuit, I guess you could call it. And my father advised me that if you, if you never win a race, you're really never going to be anybody in your life. So you have to either get out now, you know, enough of this finishing second and third; if you're not winning, it's not worth it in the long run. So he advised me to either get out and study, go to university at the age of 22, which seemed kind of late, or work for him, which was a pretty big car dealership where I would be able to get my hands dirty, I guess you could say, in the body repair. So I always had an artistic slant to my upbringing, I guess, as well as having a technological and innovation side to it through, my father's tastes. But I, through serendipity, learned that there was a university, college university in California that placed about 95% of their students into the professional car design world. And at the time when I read about that, I thought, well, that's a surefire guaranteed way of getting to become a car designer. And my father supported my decision. He says, "Okay, you know, if that's what you want to become then I'll support you, but you must get a job". And little did I know how difficult it would be to get through four years at Art Center College of Design. If anybody checks it out, it's probably the hardest, or at least one of the hardest, universities in the world to survive, you know, four years at. And they really put you through the grinder to make sure that whoever they churn out as a graduate is ready for the professional world and good enough to be, start on the ground running. So I made it through those four years. I saw our beginning of class of 30 students dwindle down to six students at the end, so 24 dropouts. And the six of us have, it's kinda like six guys that survived the war together. You know, we still have contact with each other and we all know what we're doing and meet off and on, I guess different events around the world. But that's basically how I got started. I moved from Europe to Pasadena; settled in pretty quickly, already spoke English. Had to do without a car in the first year, which was kind of hard in that part of California, but managed it and then real wild ride for the next four years. And had a bit of support halfway through by Ford who they check out - the big three basically check out the students at about halfway through their

studies to see who's potentially going to be a good candidate. And I was lucky for Ford to be interested and say, "Look, we'll cover your education costs for the next half of your education here if you signed up". So last couple years I was all right, financially it's quite expensive to go to that school,

Mm-hmm.

university. But when I graduated, they'd they were planning on sending me to Detroit, which was the last place in the world I wanted to start my career at because you know, I was interested in living not in dodging bullets and things. well, thinking.

And you've had this cosmopolitan background though growing up in Morocco and other places that are quite different from Detroit. Did, did those cultures influence your design aesthetic, make you a better designer?

Absolutely. Absolutely. There were they were ways of opening up. I mean, during that time when you're growing up like that, it's just a normal growing up feeling. It doesn't feel different or anything like that. But looking back now, I guess, you know, in some way it's exotic. But what it does do for you is it really opens up your perspective. You become very not prejudiced at all, at anything. It's all, you know, different cultures everything is different about moving from one country to the next and it becomes a normal thing. But it really widens your sort of personality, I guess. And you get influenced by so many different types of people, different types of customs everything basically. So it's a bit of a bombardment of right emotion. And I think that is a good thing for a designer, you know, so you don't really just go down sort of one track, with taste and ways you, the ways you see life.

So let's get to AI because you've been in the field of car design long before AI was capable of playing any role in that process. And with all the popular narrative about AI taking jobs, I think most people would expect that someone in your position would be the last person to embrace that in any way. So what is your position about the role of AI today in engineering design?

Yeah, it's an interesting question because, you know I guess if you asked any old school artists, you know, going back as far as you ever want to go back, if you ask them about machines doing your work, they'd be insulted or very highly critical because you're taking away the human touch or the human approach or the feeling that a person was involved with it that had made quality that a lot of us appreciate when, when you're, when you're dealing with products and things. But you can't stop progress. And we'd be really stupid. We wouldn't be advancing as a culture to stop progress. It's just it's kind of like a doctor who finished his studies 30 years ago and then never learned anything after those 30 years had gone by. And, you know, he wouldn't be relevant any more unless he keeps up with the latest procedures, latest technologies, latest information, breakthroughs, whatever. So you do have to stay, let's say, relevant in keeping up with what happens in the world in terms of tools for your profession. So in a certain way, we do have to be careful with it because it can, and it is hurting, I think a lot of the younger children younger students today, relying on it too much because it's very easy to take the easy way out and let AI sort of help you get started. But what it is doing is taking away those basic mistakes

that you have to make at the beginning to learn. And the moment you let AI start being the one who rules in terms of design, you're not really becoming a designer. In the end, the designer has to basically know what he wants or be able to judge what he wants. And the AI is really becoming a crutch for too much of a crutch for a younger generation of designers who nowadays, when I ask, for example, to see a portfolio before I would consider hiring somebody, I rarely see these hand sketches that I used to see - that we had to do. And your mistakes are in there, but you're improving all the time. And the kind of portfolios I see nowadays, the students aren't going through that basic initiation process of capturing an idea in their mind and translating it on the paper in 10 minutes. You know, good, quick, fast, smart sketch is amazing to see it, but the talent to do that requires at least four years of education, if not more. You never stop improving that way. But AI is taking that away, that ability away from designers. And what's happening now is that a lot of designs are becoming very hard to say who designed it. It's almost like you're losing your personal character. Your sketch style is gone because you don't sketch anymore. If you're using Photoshop, for example, already everybody uses Photoshop, it's hard to distinguish a person's style from somebody else's. And so you're getting this homogenization of design that is causing a lot of products to start to look the same if you're designing with that same tool. So, I think in a summary it's a good thing as an idea generator, but you cannot lose the fundamentals of design or lack that, because in one sense, a designer, it won't take over. AI won't take over, I don't think. But a designer with the ability to use AI is probably going to be better than a designer who doesn't have the ability to use AI.

Well, you touched on one of my pet peeves there; which is perception about car design, and it would extend to a lot of other things as well having in my opinion - and I wanted to know how this jives with yours - stagnated since the sixties when there was, there seemed to be a lot of innovation with things like bubble car and they're just playing around three wheeled cars, a Ford Anglia; all kinds of crazy ideas that people made. And it seems to me that at least in the nineties and the '00s that the car e every year was minor change. They'd change a taillight from the year before that. And that kind of innovation had had gone. What's your take on that? Am I off or...?

No, no, you're absolutely right. The, the biggest change I think happened in the, the last biggest change, I'd say happened in the late '90s, early 2000 when I think a new segment was created that sort of changed the, the, the volume of the kind of cars that we drive today, which is SUVs. You know, there was a sudden, yeah, we had- I forget what the Chrysler minivan was called, the wood paneling on the side- but that type of family car was kinda like a minivan or something. But that didn't live very long. But the SUV market suddenly exploded in 2000 and it became sort of like, everywhere you have SUVs now, is the most practical vehicle you can own in a family for everything shopping, taking the kids to school, doing your opera, long trips, whatever. So, yeah, so I think in terms of brand new innovation, it's hard to say what is new, what is new. It you get a lot of the design language changing in terms of companies realizing that design sells. But on the other end of the spectrum, it's almost like ugly as the new beautiful kind of thing where they're just trying to shock you more than to make you go, "wow, that's gorgeous". Because I remember the cars that are still considered perhaps the most beautiful cars in the world were those cars from the '50s, '60s that sort of had this designed by an artist rather than by a

wild thinking designer that's just trying to create a language that hasn't been done before. Whereas it was more about proportions and beautiful surfacing and cars that you actually wanted to wash by hand as opposed to very aggressive looking cars nowadays. I think the marketing and the it's got to be a bit of the designers, but I'm sure the marketing teams are pushing the designers to do cars that really stand out now as or they're trying to get 'em to stand out now as being unique to their brand. So it sort of has a design language. But if you take the case, for example, of BMW, there was nothing wrong with BMW up until the early, mid, late nineties, maybe right around in that area era. And then suddenly they changed their look for no reason at all, because nobody was ever griping or complaining about what BMWs looked like. And suddenly they shifted to something called flame surfacing, which was just designed, it had no engineering advantage at all to it. And that's, for me, not the right way to design a car. If you're not designing it to be an overall more efficient, better performing product, you know, then design for design's sake is just like changing your shirt, you know, it's not really what for me, design is. And so we get designers doing that nowadays where it's basically, the car is still the same car, but they're just folding the metal differently or adding more complex surfacing to it. But, you know, headlights might be a little bit slimmer because of, you know, laser headlights or old lead headlight development or things like that. But in general, there hasn't been any crazy innovation in terms of designs. If you look at the electric vehicle market, you would expect that a motor that is much, much smaller in volume would allow you to dramatically increase the interior space of a vehicle. And it does, because basically you're shrinking what is normally the space you would keep for a, a V-8 or a four cylinder or whatever. But they're not taking advantage of that. So that proportion change, which could happen because we're using that smaller unit. You have batteries of course, but those go underneath, we're not seeing it. They're not taking that giant step. If you look at the new Mini that has just been caught undisguised out in California on an advertising shoot; it's their first big generation change after 23 years, I think, since the first one I did. It's the first chance they've completely rehailed everything on the car as a new design and what does it look like? It looks like a Mini.

Mm-Hmm. <affirmative>. Well, let's talk about that. Let's talk about that design process now, because there's this video of you generating car concept designs with DALL-E or similar. And they look amazing, the sort of thing that. You know, you would expect to be the product of a lot of sweat. And, that's, you're, you're making a point there. Now, on the other hand, concept cars, we get concept designs all the time for things that look to me, well, they remind me of like Paris fashion shows where you've got like a model dressed like a refrigerator or something. It's like, "Yeah, no one's going to wear that". And so most of these just never see the light of day. So what is, let's start at what is the hardest part of the car design process?

For a guy who, or somebody who's wired to be a designer, there really is no hard part to be in to the design process. It's kind of like asking somebody who writes novels, what is the hardest part? I don't fear, comparatively, writers block, where they don't know what to write next. And for a chapter or something, because even people I work with, we have an overabundance of creativity. We have to reel ourselves in most of the time. So we have too many ideas and not enough time, is our problem. So the ideation phase isn't difficult in all. The creation or imagining what a new product could look like. We could spit out designs all day long, you know, and, and hope one

hits the target. And obviously the more experience you have, the, the less you have to spit out or regurgitate ideas, you'll hit it quicker. But I think the hardest part of the design process for me at least, would be the compromises you have to make with marketing. Not so much with engineering be - well, it depends. If you're working with let's say a non-innovative values company and a company that just wants to play it safe all the time, then you're going to have engineers who aren't really that, you know, they don't have that gumption to come up with something fresh and new. It's more or less, "Let's hit the budget target, let's hit the timing, let's play it safe". And that is extremely frustrating for a designer, because we want to bring innovation. We want to bring a new idea to the game. It's going to require an engineer to think a little bit differently than he's done before. Obviously, the ideas you bring as a designer don't want to just change something for change's sake. You want to improve it, whether it be the way a door opens or the way you the seat works or the steering, whatever you design. It has to have a higher level of efficiency, which then requires to the engineer to break his balls, sorry to put it, to come up with a better way of doing it. And that usually happens with a high-end company that has that kind of mentality in their engineering section. So the engineers typically that I've worked with at companies like Maserati, Ferrari, McLaren, are happy to get the challenge to let's find a better, different more efficient way of doing it. And that's super exciting. But the frustrating part of the design process is when the marketing team tells you, "You only have this amount of time, this amount of money and let's just play it safe". And so, you're, you're kind of like, "meh."

So I want to get at what the role of AI could be in car design, since you have brought it up. Because the image generators can be trained on millions of pictures of cars, but they're pictures. It doesn't convey the constraints for structure and performance and cost. And, and it reminds me of a episode of The Simpsons, where an auto manufacturer tells Homer, "Hey, we love your ideas. Go ahead and design a new car for us. Do whatever you want." And he comes up with something that's got a built-in fax machine, donut maker, and all kinds of other things that mean it's impossible to construct, impossible to drive, impossible to afford. And I think they go bankrupt or something. So it's got to be a lot harder for AI to have those constraints in it. Do you see AI being used, well, let me back off. What role do you see AI playing then in the design process, given that there are these constraints that are much harder for it to integrate?

I see it as a spark generator for creativity, but not as the ultimate creator of new ideas. Everything I've ever seen that has been done by AI is something that I recognize in the past. Might be updated. It kind of looks like retro design done for the modern age, things like that. But you don't see breakthrough design solutions coming through AI, because that's not their source of you know, they don't think, they just reproduce, basically. They take what exists and mash it up, and they do it super efficiently, super believable and all that. But I have not seen anything come out of AI that a human could not have thought about or created himself. It's like having a hundred designers throw designs at you and hundred creative, well-trained designers throwing ideas at you. But you've seen all those ideas before, they haven't innovated. And that's, I think, the thing that is lacking in AI is the ability for it to come up with an idea that hasn't existed before, which is what we try to do as designers ourselves. If you're that kind of designer, you're

trying to bring something fresh to the market, something new that hasn't been done before. And AI is for me, is more like, AS it's artificial stupidity. It's not stupid. It's just not pushing the game forward. It's just rehashing other ideas and mishmash and creating a bit of a Frankenstein sort of approach where you take a bit of that bit of that does it? Well, of course, because it looks very believable and real. But it doesn't excite me in terms of, wow, I've never seen that before. And that, that purpose of AI I see is, is staying only in that very first phase of, of conceptual thinking: okay, what direction do we want to go in a very futuristic sort of direction taking ideas that we had in the past of the brand's past vehicles. So if you told AI, say "Okay, take a Corvette and mishmash it with I don't know, a Camaro and mishmash that with I don't know any cars from the past of that brand," what would that car look like in 2030? Then it would take the '50s Corvette, the '60s Camaro a '70s I don't know, whatever cars we can pull out of their lineup and then give you an idea, perhaps of what those cars could blend into. But then it's your job as a designer to look at it critically and say, is this really where we want to go? Or do we want to introduce a new technology that will require us to update those designs that AI has made. And AI won't tell you to do it. It'll just offer you an option you have to choose. It's like walking up to the ice cream vendor and saying, okay, mix the vanilla with the peanut butter and this and that, you know, you have to choose that. But yeah, I don't think it's going to be our final decision maker at all. At all. Unless, of course, like you said at the beginning, AI is trained to understand not only taste and history and all that, which you can already do, not taste, but history, but as well as understand new trends, where we're going in the future potentially, new legislation requirements, things like that. And at the moment- at the moment, because it's very easy to imagine that it could be trained to pick up on those elements there - that's when it would become scary because then it is bringing new things to the game. But it doesn't do that yet.

Well, it excited you enough to make this video about the ways in which it could come up with concepts and including things that people haven't thought of before. But, well, you, thought of the idea and then it, it drew it. Like what would a car designed by IKEA look like? And by golly, that's exactly what it reminds you of. So perhaps now we are talking about creativity here. And we've had a lot of discussions about AI and creativity on the show before, and it goes to things like the game of Go where Go players learn from AI, seeing it come up with ideas that, that are relatively new for them and helps them improve their game. Do you see this as like the AI perhaps being the crazy guy in the corner turning out all kinds of weird ideas that you look at, and once in a while there's one that makes you go, "Oh, that gives me an idea".

It certainly can, Peter, because I've - I know what you're talking about with Go. I've watched that and seen how they're amazed that, you know, they'd never thought about these techniques or these moves or anything before, and suddenly they're getting beat by, by something that never played the game before in its life, you know? But at the same time, I think, yeah, it can be seen as the creative guy in the corner, and that's probably all it should be. I think we have to be careful that we don't lose the human touch in anything we do. It's going to become a very cold and synthetic society in the future if we have to sit back and rely on machines to do our, groundwork, I guess

Oh, we shouldn't have computers doing the things we enjoy doing just because they can.

Well, yeah, but who's to say what we - I mean, nobody enjoys packing shelves at night in a supermarket, and you have these humanoids that are being built now that will take over the, the labor work that people get paid to do, for example. That's, that's not AI, but well it kind of is. But a lot of work going on with a couple, well, Boston Dynamics and, and a couple other companies behind the scenes figure, they're doing these things now that are going to actually substitute human labor for robotic labor. And how do those people that used to do those jobs, how do they survive?

Would AI be of value in other parts of the process beyond, well underneath the body design of a car, but for instance, optimizing the weight to strength ratio over chassis?

We have programs that do that, Peter. We can do, for example, we used to have wind tunnels - or we still do, but we used to have wind tunnels. It was the only way really to test the aerodynamics of a car. You, you'd think it was aerodynamic and you put it in the wind tunnel and the results come back that what you thought was aerodynamic is absolutely not and what you thought was not aerodynamic is. Kind of a black art. Then a program has been developed, which we call CFD (computational fluid dynamics), which basically is saving you all the time, all the money it takes to run a wind tunnel and all that, just by running a few digital models, numbers, data into a computer spits out very accurate information. So in that sense, yeah, AI will at some point start to do things like that. Crash testing, we can already start, we can already do crash testing; simulated crash testing, which saves you the expense of building a, you know, a full-size prototype and real and crashing it and destroying everything that supposed to be. But at the same time, I think AI is, the more we learn about it, the more we realize that it is capable of doing jobs that we do now, being as intelligent, well, it's hard to say what that intelligence is because you have to program it to do it, but maybe there's less room for error. I mean, we always have human error a lot of times, and we get things wrong all the time. And AI will probably not have that issue with miscalculations. It would be, you know, either zero or one all the time, I guess. And so you can get probably better quality of data, better accuracy of data, more data. That's always a good thing in development. What will probably happen then is we'll get shorter development times, which is a fantastic thing for the industry. Development is expensive, and the shorter we can compress those kinds of cycles might give you newer products sooner. So we don't have this, every time a new car comes out, it's been four years since the last one, perhaps; now we can shorten that cycle to a year and a half maybe or two years, instead of having to wait four years for a new car to come out. It becomes more product-like where you get, like, every year you have a newer, better version of it.

Do you think it's going to be harder for people to become car designers now, or easier?

That's a scary one because I get a lot of kids that are just sitting there thinking, asking me "should I keep on pursuing my dream of being a car designer when I know now?" I think now that AI is taking over it's a very scary time. I think I would certainly be nervous if I was a young designer wanting to get into the profession now. You absolutely only become a car designer because you love creating shapes, you love being in the automotive world. It's your passion since you can remember and all that. But it's kind of like, if robots did operations on people now

or in the future, would you want to become a surgeon and you want to become a surgeon, but you're using robot technology or AI to do the operations because it's more accurate, you know.

I hear you. It's a common conversation. Let me ask about the interior of cars, now. One of the greatest, or at least that one of the loudest influences on modern automobile construction has been Elon Musk and, and Tesla, and I've got a Tesla myself when I think of it less as transportation and more of a super computer on wheels. Now that computing hardware is so cheap that we can put so much of it inside a car, it can significantly transform the experience of being inside an automobile. How does your design philosophy extend to the interior of the vehicle, and how do you see that design evolving in response to what we can now do with intelligent systems inside a car?

Great, great question, Peter. But the thing is, with cars, you have to take it from the approach of what the car is meant to do, I think. So you'll have people who absolutely do not care about driving the car or engaging with a car or becoming emotionally attached to your car. It's just an object that they use to get from home to work and maybe do whatever. I have to do normal work weekly schedules and things, and they would rather just let the car do as much as they can do. They're not passionate about any of the other sides of driving or anything like that. So what Tesla's been doing is fantastic. It's breaking new ground in terms of what the interior of a car can be like, where you basically just simplify it to the absolute, it's not simplified, it's just technology is aiding you to do things that you normally would've had to do manually. I can't imagine a Ferrari driver aspiring to this type of interior, because for him it's about the sound. It's about manually, it's about the haptics, turning the knob, and feeling it go "click, click, click", or feeling like he's piloting or in control of the vehicle himself. It's a, it's a very personal experience that they develop with their car and it's an extension of them almost. So that type of driver will probably want to engage much more with the interior. And the thing with the electronic displays, heads up display and all that: if you look at the diversity of design we used to have when we had manual controls, when you have analog controls, the diversity and design, you know, up to the age of when we started having screens was so diverse. And so, you know, detail was important. Graphics, everything like that. Now the screen, you wouldn't almost know which car you're sitting in because all the graphics are starting to very, you know, become very similar to each other. So you're losing a little bit of that, that thing that made interiors special. And I think the job now of a designer knowing that this is what's coming is going to be okay, a little bit different from the designer of old who is more into, you know, he can design a watch for you know, it's a watch face for you. Now it's a designer who basically thinks more in terms of electronics and, you know, AI and more digitally ever than, than before. And that's going to become a different type of designer. Maybe that's what the young designers should be looking at. More of an experience type designer. You know, the lighting inside the vehicles now is incredible. The mood lighting, sound, the materials that are going so much more in the sustainable direction of where luxury used to be, wood and alloys and things, that's probably disappearing now, gradually. And exotic materials, or luxury materials are becoming more sustainable type materials, materials that don't exist; fabrics that are perhaps taking over like shoe technology where we, they keep inventing new ways of making sports shoe shoes in terms of the materials and the technology, bringing a lot of that cross innovation into car design, where

the designers, maybe they're not so specialized in cars, they just do products. And that kind of lends itself to innovation. On the car design interior side, it's very interesting. I did a project with Corning Glass last year, I believe, where they asked me to design the interior of the future of a car. And I had to break away from my conventional thinking of you sit there with a steering wheel and you have your dials and the screen in front of you while suddenly any material in the car could be a glass from Corning Glass, where basically it represents the look. You can make glass have any by electronic manipulation, you can give wood appearance to glass, you can put texture on the glass surface. You can change that wood immediately to an alloy. You can be surrounded by screens that are off or on or look like plastic or look like anything - it's crazy. And it exists. You can bend glass. Incredibly. You know, you think glass is straight or you know, if you bend a little bit. No, they make glass. That actually is, you know, we've seen it now with a lot of the notebooks and things that you can basically bend it in complex curves, so in two directions, like a barrel. And that's going to open up a whole new world of design on the interiors.

Wow.

I think interiors is probably the new revolution, or will be the new revolution in car design exterior until we start coming up with shapes that take advantage. And I don't even - tell you the truth, Peter, electric technology EV is not the future for me, but we should at least take advantage of what EV technology allows us; which is change for the better. The interior space. We have one in a vehicle. And we haven't done that. You would look at an EV vehicle and think it's basically, is that an EV or a ICE or a combustion engine vehicle? You don't know. And that's a shame because we can move into the future with new, better, more efficient space that we can use and wow, we're not there yet.

Wow. That's an amazing story there. I'd had no idea about that. About the glass. And, and, you know, listen. Oh, yeah. Listening to you the way you talk, I feel this experience vicariously of being in love with, with driving. What's your favorite car of all time?

Oh, of all time? I was going to shock you there, Peter, because I'm not really, believe it or not, I'm not kidding you, I'm not the most car guy out there. I'm not really that much of a lover of cars, to tell you the truth. I'm more of a motorcycle guy. But at the same time, cars are a big passion because I love this. I love what you can do to the environment and to make somebody's life happier with a beautifully shaped automobile, you know, that gets you from here to there. My favorite car of all time, that's a really tough question.

What car is memorable? What comes to mind?

The first car; well, there was a first car in my life. It's, you never forget your first car, right? That would've been a Jaguar E type a series one. I remember it exactly. It was a series one 3.8 coupe, or fixed head coupe, as they call them. So it wasn't this version that was a car I saw because I wasn't used to cars. It was 19-, it was way back - 1969, I think it was about 10 years old. And it was just on one of the streets there in Casablanca. And I was walking with my father. I saw it and just, and it's like, I saw it yesterday. It just stopped me in my tracks. And I think that was the car that really, that was the first car that made me go, "Wow, cars are gorgeous".

That is something, it comes to mind like a scene from a James Bond movie. So that what are your plans and projects at this point then? And what do you want to draw people's attention to? How should they follow what you've been doing and are going to do?

Well, there's- I mean, I haven't stopped. So I left in 2000, I guess you could say. It didn't leave the automotive industry. I just switched my dedication to working for myself rather than working for other people, I guess, which was a bit hairy, because whenever you jump in on your own into the deep water, you never know what's going to come up. But I've suddenly moved at that point in time into the EVTOL. So the electronic vertical, electric vertical takeoff and landing jets, which are the, it's the new age of mobility. It's when we went from, you know, horses and carts to cars. It's that period right there where we're going to start looking at moving people around in a much more efficient manner. So not lots of people; like four to seven people would fit in one of these jets. They take off vertically. So it's like an Uber, you call it up on your app. You either go that short first mile to a place where they're at in a city, for example, on a hotel rooftop or whatever. You get in and it flies you at about 200 miles an hour for about half an hour. They're not long haul. And then you land vertically. They're electric. They have to be super safe, at least as safe as an airliner, commercial airliner. They're air traffic controlled, they're electric, they're silent, super comfortable, efficient, and relatively the same prices in Uber. And so you're going to be able to get your destinations on time. You're going to be able to live further away from where you work. More advantageous.

I want to ride. And can people find out about this as it's happening on your website?

We're on our third, third project right now. Our third different company designed for a different company. So we're doing these that's our main, one of our main projects. The other few main projects that I'm working on are I can't really talk about it, but we're talking about near space projects that are going to open up a whole new area to, to visit for a lot of people.

Near space, as in up -

Yes.

Okay. That, that space.

Yeah. At the moment, it's very cost prohibitive for a lot of people to do that, or any, any people to do that. But we're going to make it not prohibitive. And we're working, well, we've just finished filming compressing, I guess it's hard to say it, but compressing 30 years of car design experience into 10 hours, which you can imagine is almost impossible. But we've filmed about a hundred hours, and we're taking all that experience into a course that will be made available, a training or education course of car design for anybody in the world. Because you'll get a lot of very talented people in the Indian markets or Africa, where it's just basically prohibitive for them to go to a university in another country, or even be sure that they'll get accepted in a university. So anybody who's ever been a frustrated car designer that never made it, or wants to prepare themselves for a portfolio entry thing to get into university, this course will teach them how to hold a pen to draw.

Wow.

All the way to being able to draw a car at the end in a way that they never imagined they could. And I do it in a way that I'm talking the whole time and imagining if I was an absolutely clueless about car design or drawing, or one of the basic principles of shading or even drawing a line. There's a lot of ways to design all this. So it will educate guaranteed that anybody who thinks they can't draw but would like to draw, it'll take them from that very, very first mental stage. "How do I even warm up? How do I get my mind in the right mood to, to start drawing?" all the way up to being able to draw their own cars in perspective and with good taste, I guess. So, yeah, it's a worldwide design program that we developed.

Wow. And yeah, so that is at frankstevenson.com. We'll have a link to that in the show notes and transcript. It has been wonderful talking with you and, and just your passion is so infectious. It's given me this whole new appreciation for and excitement about the automobile and what's possible in it. Frank Stevenson, thanks for coming on AI and you.

It's been a great pleasure, Peter. Thanks a lot. Great to have this opportunity to talk to you.

Terrific.

That's the end of the interview. Isn't it interesting how AI is now becoming part of the world of people like automotive designers, when a decade ago you wouldn't have found hardly any interest in it outside of applied computer science circles.

In today's news ripped from the headlines about AI, a study at MIT (https://economics.mit.edu/sites/default/files/inline-files/Noy_Zhang_1.pdf) studies the effects of using ChatGPT on the productivity of people using it for writing tasks like term papers. And their results show that ChatGPT substantially raises average productivity: the time taken decreases by 0.8 standard deviations and output quality rises by 0.4 standard deviations. It also benefits low-ability workers more, so it has the effect of reducing inequality between workers. It restructures tasks towards idea-generation and editing and away from rough-drafting. The researchers Shakkend Noy and Whitney Zhang said that, "Exposure to ChatGPT increases job satisfaction and self-efficacy and heightens both concern and excitement about automation technologies." Although this is still a working paper and hasn't yet been peer reviewed, these results seem to confirm what we've been thinking and observing informally about the use of ChatGPT for content generation all along.

Next week, we will have a special episode where I'll be talking about the massive recent advances in AI (chief among them ChatGPT), and addressing the anxiety that's out there about where all this is going when it's happening so fast and unpredictably. That's next week, on *AI and You*.

Until then, remember: no matter how much computers learn how to do, it's how we come together as *humans* that matters.

<http://aiandyou.net>