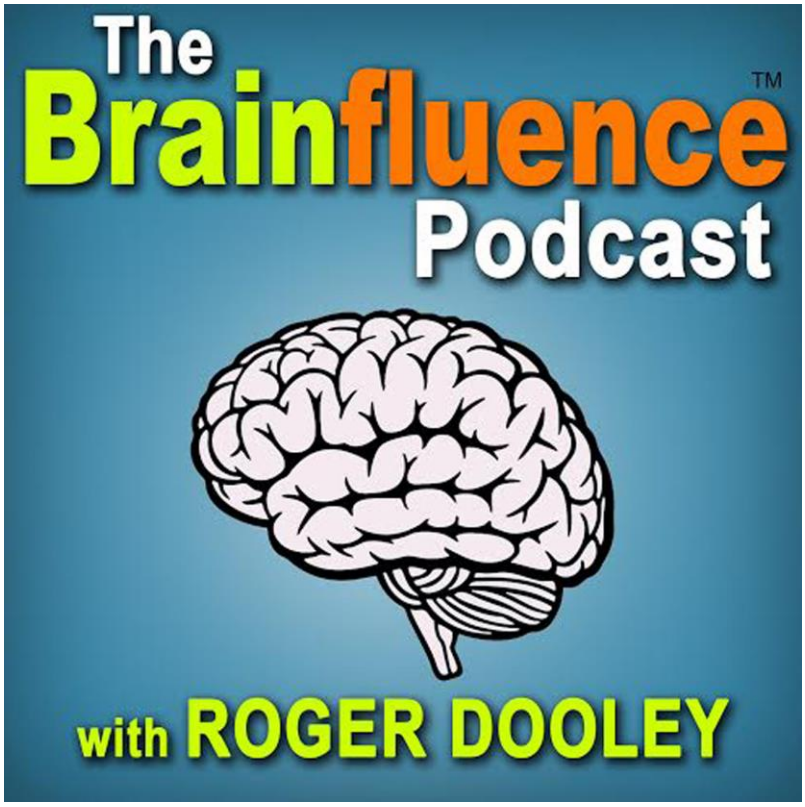
Ep #65: The Simplicity Cycle with Dan Ward



Full Episode Transcript

With Your Host

Roger Dooley

Ep #65: The Simplicity Cycle with Dan Ward

Welcome to the Brainfluence Podcast with Roger Dooley, author, speaker and educator on neuromarketing and the psychology of persuasion. Every week, we talk with thought leaders that will help you improve your influence with factual evidence and concrete research. Introducing your host, Roger Dooley.

Roger Dooley: Welcome to the Brainfluence Podcast. I'm Roger Dooley. My guest this week spent 20 years in the U.S. Air Force, where he specialized in leading high-speed, low-cost technology development programs. I know that sounds a bit like science fiction, but he also led an $84-million radar project that delivered twice the expected results, finished a month early, and came under $8 million under budget, and he's got three Engineering degrees and a Bronze Star to boot.

My guest is also the author of two books. The first is "F.I.R.E.," which spells "fire" and is also an acronym for a speedy innovation technique, and his new book is "The Simplicity Code: A Field Guide to Making Things Better Without Making Things Worse."

Welcome to the show, Dan Ward.

Dan Ward : Hey, thanks so much for having me, Roger. It's great to be here.

Roger Dooley: Great. I'm really excited to have you on the show, Dan. I enjoyed the book a lot. I noticed the foreword was written by Don Norman, who's certainly an icon in the field of user experience and simplicity. His famous book is "The Design of Everyday Things," that years ago I read and was amazed by and I've followed his writing ever since. How do you happen to know Don?

Dan Ward : Oh, Don's fantastic. He's a design guru and tremendously kind and generous guy. He and I began corresponding several years ago, as he mentions it in the foreword to my book, "The Simplicity Cycle," and just over the years we talked about issues of simplicity and complexity. I never met him in person but he did introduce me to his agent, and that led to the book deal with HarperCollins, so I owe that man quite a lot.

Roger Dooley: I've corresponded with him briefly and I know that he's been a requested guest on the podcast. Several of my listeners have suggested when I've done a poll, his was one of the names that came up, and so we're going to have to make that happen sometime because he really has some great insights.

Dan Ward : He's a brilliant writer and a huge influence on me as a designer and engineer and thinker-writer as well. A lot of the things that I talk about in my book, the origins of some of these ideas and some of the problems that I address really go back to the things that he's written about.

Roger Dooley: He seemed to really discover that stuff that nobody else saw, so now whenever I approach a door and can't figure out if I'm supposed to push or pull or slide it to one side or whatever, I immediately think of Don and say, "Oh, he wouldn't like this."

Dan Ward : Absolutely. My favorite line from his book is he's talking about batteries and putting batteries into a device, and he says, "Have you ever put double-A batteries into a device the wrong way? Why is that even possible?" and just that question I think is so brilliant and there's such depth to that kind of observation.

Roger Dooley: Right. It's always clearly marked in tiny embossing in black plastic in a dark spot, so why would there be any problem?

Dan Ward : Right.

Roger Dooley: Anyway, let's talk about your stuff a little bit, Dan. I think the title's a little bit provocative about making things better instead of worse. At first glance, you'd think, 'Who'd want to make things worse? That's dumb,' but there's an element of truth in what you say and an important enough element to actually put it in the title of your book, so could you explain what you mean by that?

Dan Ward : Sure. Of course, nobody sets out to make their design worse, but oftentimes we do set out to make the design deliberately more complicated. Complexity often looks like sophistication, complexity looks like work, and when we make something more complicated, we can point to it and say, "There, I did something."

Initially, when we're first designing something, whether it's a piece of technology, software, hardware or a PowerPoint presentation or an organization or process, the initial steps, the initial phases of our design are additive where we increase the complexity of the thing as a way to make it better, but that pattern of decision-making, of adding new pieces, new parts, new functions, at some point gets counter-productive.

We hit a bend in the curve where now this additive move, this additive behavior that used to be helpful and used to be good now is actually making things worse. There's a great German word, and I'm going to pronounce it terribly, but it's Verschlimmbesserung, and that means improvements that make things worse.

A lot of times we do find this happens certainly with engineers like myself but in designers of many stripes where the things that we think are making our design better end up coming back and biting us. That's really what I try to address is ways to make things better without making them worse.

Roger Dooley: I'm glad you pronounced that word because I was going to ask you about that and I was afraid I was going to have to be the one to bring that up, but we'll include the correct spelling of that in the show notes for anybody who wants to dig a little bit deeper into the German.

I guess one question I have about complexity is, whether it's user-dependent, in other words, I've got Photoshop installed in my Mac, but I almost never use it because I open the thing up and there's 10 million buttons that are all totally cryptic and functions that I don't understand, and so I end up just about always defaulting to some easier program, but at the same time, Photoshop is an incredibly useful tool that is the tool of choice for most photography professionals and design professionals.

What do you think about that issue? How do you deal with these multiple layers of users or customers?

Dan Ward : That's an important question. I think different people have different tolerance levels for complexity. Some people enjoy it, some people enjoy the experience of digging into a highly-complex user interface, for example, and learning and mastering it, and other people, for whatever reason, don't have the time, don't have the interest, they find that less engaging.

When we have a complex user interface, there's really two ways to make it more usable, make it more effective.

One would be familiarity, and that is, putting in the time, putting in the effort and really learning what all the different codes and symbols represent and all the different functions involved. Some people are willing to do that.

The other way to improve the usability of a complex interface would of course be to simplify. It turns out there's a fair amount of research that says when we make things easier to use for the least skilled user, we actually improve performance for all the users, to include those uber users or super users who have a high tolerance for complexity and would be willing to put in the effort, but again, when we simplify it, simplify that user interface, that user experience, we actually do make it better across the board.

Roger Dooley: That's an interesting point because, and over the years I've talked to people about product designs and making them accessible for folks who have difficulty seeing and so on, and almost invariably, those improvements are great for the regular user, too.

If you look at your TV remote, I know in the early days a lot of them, and of course they still have a million buttons, but they're black plastic with little embossed letters that really were almost impossible for anybody to see except in a really good lighting, and once you make that easier to see for those folks who maybe have some difficulty seeing, suddenly all the users appreciate that.

Dan Ward : Absolutely, and some people talk about this thing called the Law of Conservation of Complexity. I'm not sure I fully buy into it, but the theory is that we can't necessarily reduce the objective complexity of a thing or we can't put some of that complexity beneath the skin. That is, make

the developers deal with it rather than making the users deal with it.

I think Google does a great job of that. You've all had the hour-long Google training courses, I'm sure. No, of course there's no training for Google. You just go to Google and you know how to use it immediately and intuitively, but there are some-

Roger Dooley: Yeah, and if I can't figure it out, then I just Google my question and it tells me.

Dan Ward : Right, or you can Google, "How do you use Google?" but there are some specialized search functions and specialized search capabilities that certain people will need to use, Google Book and Google Scholar, and different ways to do very detailed and very complex searches.

Those are all present in that Google.com, if you just go to the straight-up Google page, but a lot of those are hidden beneath the skin where we move the complexity of that effort or that capability out of the view of the basic user, while still keeping it accessible and available to the more advanced user.

Roger Dooley: I guess I need a Photoshop for Dummies skin for Photoshop. Then that would ease me into it, because I suspect that it's not quite as difficult as it looks, it's just a case of learning the new simbology and so on.

It's always the effort required in the moment when I'm under time pressure to create some kind of a graphic and do I want to figure this out or do I just want to jump over to Fireworks or, now my interesting new tool is Canva, a little online image generator that is extremely simple. It's

also limited, but for certain things, it works pretty well. Guy Kawasaki turned me on to that and it's a pretty cool little product.

Dan Ward : A lot of the times these 70% solutions that don't do everything but they're really good at doing a small subset of the larger set of capabilities, a lot of times those are really all we need.

I forget the numbers exactly, but again there's a lot of research that says 20% of the capabilities for any given piece of software are what actually gets used and you get somewhere along the order of 80% of the features that Word or PowerPoint or any of those, Excel, 80% of those capabilities don't get used by 80% of the users.

Roger Dooley: Right. That makes a lot of sense. Just to get into your model, I think these days, one big buzzword is the minimum viable product, and I think that's where products start with a very limited feature set just to see if people will use it, buy it and so on, and if it does what it's supposed to, that's the starting point for your model.

Then, as the product is improved, more features are added, and typically, these features are adding value to the user, but then they're a fork in the road, so to speak. Explain what happens there, Dan.

Dan Ward : Sure. "The Simplicity Cycle" is really about helping people make good decisions related to complexity. A project, like you said, will go through different phases. Initially we have a very simple project or a very simple product that provides some minimum viable capability. Then, over time we use a series of what I call additive tools where we're introducing new features, new parts, new functions.

As the project moves through that additive phase, it gets more complicated and it gets better. That's why the most important line in the whole book is "Simplicity is not the point." This isn't holding up simplicity as an intrinsically valuable, intrinsically desirable attribute all the time and forever.

We do need a certain amount of complexity and it's not only tolerate complexity but also pursue and introduce more complexity at certain phases in the project, but then we move into a new phase where now the way to improve it is to simplify it, to begin stripping out some of the things that we have previously introduced.

The idea is that it was a good idea to introduce these features and parts and functions into the design because that's a way for us to test them, to learn about does the user want these, do they work, are they meeting a need, are they conflicting with other pieces and parts and functions within the design.

It's a good idea to introduce them, and then later, it's a good idea to take them out, but we shouldn't expect that everything we introduce is a good idea to leave in always and forever, and so that's why the word "cycle" is one of the most important words in the title because we go through the cycle of adding and subtracting, introducing and removing various pieces as a learning process. Design is very much an iterative process and this tries to identify some different tools we can use as we go through those iterations, as we go through those phases.

Roger Dooley: My undergrad degree is in Engineering, like yours, Dan. I found one comment in the book kind of funny that explained that when engineers are presented with a problem with the product, 99% of the time, their solution is

to add something to the product as opposed to subtracting.

I can imagine that if there's something in a product that's flopping around when it's in use, the engineer's first instinct is to add a bracket or something to hold it in place as opposed to questioning whether the floppy thing really needs to be there, whether it could be eliminated. Why use that? Is that just human nature?

Dan Ward : Yeah, I think it's human nature. I think it gets back to our education, but also, when we start off on our programming, you have that blank sheet of paper. What do we do? We add to it, and we add to the design again these pieces, parts and functions.

All of these additions are very productive. They genuinely make the thing better. The experience early in the phase of the project tends to set up patterns of behavior. We tend to get some inertia moving along and we overlook the fact or we miss the fact that, hey, things have changed.

We don't have a blank sheet of paper anymore. Now we have a sheet of paper with stuff on it. The bowl begins to fill up. When you have a full bowl or when there's a lot of things on the paper, now your situation is fundamentally different than when that page was blank. Again, I think the reason we continue to add is because, hey, we've been adding all along and it was always good. Why should it change? It should change because our situation has changed.

From a writer's perspective, sometimes we're writing, sometimes we're erasing, sometimes we're editing. If we

never erased anything, if we never edited anything, books would be very long and books would be very hard to read.

Roger Dooley: Yeah, I've read some of those.

Dan Ward : A lot of times the best thing we can do is to erase and edit.

Roger Dooley: I think the writing thing brings up a good point because I know that occasionally I've had to write stuff with a strict word limit. If you're supposed to write 500 words and you start with 750, at first you think, boy, there's nothing in here that I can really eliminate without losing value, but with that artificially imposed limit, I find that often the end product is better because it really forced me to tighten stuff up and eliminate either phrases or even occasionally a concept that wasn't germane.

I think, too, in books and, of course I do write blog posts as well, there's a tendency to throw stuff in simply because you can. If your research discovered some particular fact that's more or less relevant, there's a tendency to include it because you don't want to feel like you wasted that work, but I think you really have to ask yourself, "Does this fact really help illustrate the problem or move the book or the blog post forward in some way, or is it just showing that I did my homework?

Dan Ward : That's a great observation. In fact, one of the fundamental ideas in my first book is that innovation doesn't have to cost so much, it takes long to be so complicated. One of the huge characteristics, one of the rules of thumb I keep getting back to in that book "F.I.R.E." is that constraints foster creativity.

When you don't have a lot of time, don't have a lot of money, you don't have a large word count, it forces you to be selective, it forces us to be deliberate and to be focused in the words we use, in the amount of time we can spend, the amount of money we can spend on a project, and that focus, that decisiveness, tends to correlate tightly with higher quality, higher performance and better outcomes.

Roger Dooley: What's the difference between "complex" and "complicated?" I would guess that most of our listeners think of them as pretty close synonyms. I certainly did before reading the book. How do you distinguish between those?

Dan Ward : I found it useful in the book to make a distinction between those two words. In general use, I will sometimes use them interchangeably, but "complexity" or to say that something is complex, is just to indicate that it has certainly a mid-level amount of complexity to it that is a moderate amount of pieces and parts and functions that are all interconnected.

Complicated, again in the book I use the word "complicated" to indicate unnecessary levels of complexity, so unnecessarily excessive levels of complexity. When something is complicated, that is a point where gears are grinding against each other unnecessarily, where there's a lot of friction and a lot of excess weight. Complicatedness is bad.

Complexity can be okay. Complexity can be sometimes unavoidable and sometimes even desirable. Complicatedness, on the other hand, is never desirable. If you have a situation that's complicated, then you want to un-complicate it. You want to simplify and streamline and

take away some of those gears that grind against each other, the wheels that turn without reason and the excess friction among the different moving parts.

Roger Dooley: Interesting that you bring up friction. I've got a little project that I'm working on right now to actually be a book coming out shortly, a short book about a model that I created called the "persuasion slide" and a key element of the persuasion slide is friction and trying to eliminate that.

Most of the applications that I'm thinking about in that model relate to marketing, although I've already had people in other fields like medical compliance and others talk about using it, but explain whether your concepts can be applied to marketing, sales, advertising and so on, because I think a lot of our listeners do have an interest in those fields.

Dan Ward : Sure. Like I said, I come from an engineering background and a technology background, but I was pleasantly surprised at the number of lawyers and dentists who've heard about my simplicity cycle and applied it to their work and to their practices. I think it certainly has something to say to medical practice but organizational practice, the front office, how we run the office.

It has something to say about how do we develop and implement and interpret policies, and really, what it comes down to is the question of, have I made this policy, this structure, this law, this organization, this procedure more complicated than it needs to be, and to help see where some of these bends in the curve are and to look at some tools we can use to either simplify or complexify, depending on what phase we're in in that particular design and what's really needed to make the thing better.

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Roger Dooley: I think often marketing, and particularly one aspect of marketing, websites, end up building in a lot of complexity and perhaps enter the dreaded complicated zone where the objective of a particular page is to get the visitor to perhaps request information about the product by providing their email address, but there is so much other stuff going on that the key objective is lost in the process.

Because it seems complicated, and in some cases it's more of a simple perception or a mental perception on the part of the visitor, that while this looks complicated, even though maybe it's not really complicated, they end up not taking that necessary action and leaving. I think that simplification in many marketing elements, but particularly websites, landing pages, homepages and so on, is really important.

Dan Ward : Yeah, I would agree. I think we've certainly seen plenty of examples of websites that are excessively complicated and you can't quite figure out, what is this page about? What can I do here? What's the opportunity here? I think we're seeing some moves in the direction of some sort of new techniques and new developments that can help address that.

Ghost buttons, for example, is one that we're reading about lately, where the button is basically hidden or subdued or only becomes present when it's needed. Again, there's a number of different techniques you can use for things like webpages and for things like marketing, but your managing complexity can be difficult for a lot of different reasons. A large part, it's because sometimes talking about complexity is difficult.

You mentioned something being easy previously, and I make a distinction between things that are simple and

things that are easy. Something could be simple but still hard, and something can be complex, not complicated, something can be complex and still relatively easy. That just means it has a whole lot of steps but each of those steps can be pretty straightforward and intuitive.

Understanding the differences there, understanding what the purpose of this marketing message really is I think will go a long way to figuring out the right level, the right quantity of complexity.

Roger Dooley: Yeah, and I think actually not just on webpages but in general. Steve Krug's great book, "Don't Make Me Think," is a pretty good watchword for a lot of systems. As soon as you have to think, it's going to slow you down and maybe result in whatever is supposed to happen not happening.

Dan Ward : You want to make it as easy as possible for people to do the right thing or to do whatever it is you want them to do. It should just not require a lot of thought, it just should be natural and intuitive and guide them in that direction.

Roger Dooley: I find it kind of funny that you used an elevator example. For some reason, I've been collecting weird elevator stories as an example of bad user experience, bad interface design and so on, and my classic personal one was an elevator in Germany.

Of course, if you're designing an elevator, you want to have maximum throughput because, these days, taller buildings are actually limited by elevators, so if you can actually find a way to get more people up the same elevator shaft efficiently, then that's really a great breakthrough.

One German company designed this system that, instead of the usual interface with the up-and-down button, you approach this little kiosk in the elevator lobby, key in your floor, and then it assigns you to a particular elevator that you have to remember as you're perhaps chatting with your friends and so on.

Then, once you enter the elevator, whether it's the right one or not, you have no choice but where it goes. It goes to the floors that are programmed into it. You can't change your mind, and if you got on the wrong one, you just have to ride it until you're able to get off and start over.

The best part was this is in a hotel, which is probably the worst application for that. In an office building, where people could be more or less trained on it, it might not be too bad, but when you check in at the hotel, the reception person actually walked you over to the elevators and did a five-minute training on how to use them. It was pretty crazy.

Explain about your elevator story, which I found equally amusing.

Dan Ward : Sure. That's quite an interesting hotel elevator. Mine, I was about in the middle of a 20-story building. It's the end of the day and I'm getting ready to go and I push the down button.

Sometime later, the dinger dings and the light lights up and the doors open and I look at this elevator and I realize I have no way of telling if this elevator is going to go up or going to go down, I want to go down, because the indicator lights are a pair of circles that are aligned side by side. One of them is yellow and one of them is

orange. I couldn't tell if yellow on the left meant down and orange on the right meant up or vice-versa.

What we have here is a very simple indicator that was essentially sending a signal that was content-free. All it told me was that the door was open and I could see that by looking at it. What's fascinating to me as I thought about this simplicity, that's how it really presented itself at first blush, it's ultimately rooted in organizational complexity.

We have an ambiguously simple signal that just says, "Hey, the door's open and we're not going to tell you whether we're going up or down," but the reason that was set up that way, my theory, my guess, is that the person who installed that equipment or installed that indicator is not the same person who placed the order for that set of lights.

It's not the same person who designed the building and not the same person who designed the organization, not the same person who went through and did the inspection, so we had this huge organization of different people unconnected with each other, each making individually sound decisions, individually logical decisions that in aggregate ended up with a light that didn't give any indication of where the elevator was going.

A complicated organization, a large team, has made it harder to communicate, harder to effectively manage some of the specific design decisions. If every one person was in charge of it, they never would've installed it that way.

Roger Dooley: I think that's probably not uncommon in big organizations where each element of the organization completes its

phase and washes its hands of the project and sometimes you end up with these disconnects where there's no either central guidance or communication between the elements because it probably would've looked wrong to somebody.

If somebody looks at it, "Hmm, that seems a little odd," or "Gee, the drawing says this but I'm not able to install it the way the drawing does. Maybe I should check," but for some reason they're not empowered or they just don't care and things proceed.

I lived in an old house once that was really, really a fantastic old house, but in a couple of places, the light switches were on the wrong side of the door so that as you opened the door and entered the room or entered them, then the switch being where you can access it easily on the open side, you actually had to partially close the door to reach it on the other side.

I'm sure it's the same kind of a story because I think they made the design changes near the end of the process and somehow there just wasn't this communication follow-through where somebody said, "Okay, they say they want the light switch here. Guess that's where they want it," and that's where it ended up.

Dan Ward : Absolutely. I think organizational complexity can really foster disengagement. I just think organization complexity really fosters disengagement among the team, because whoever ordered that pair of circular lights intended for them to be oriented top and bottom. That would've solved the problem. Or if they had been trying to go shaped with one pointing up and one pointing down, that would've solved the problem.

If somebody had felt empowered to put a little sign next to each light that said "up" and "down," that would've solved the problem, but I think the various stages people were on just ordered whatever. Maybe the first person who ordered that light didn't even know what shape they were ordering or he wasn't aware there's not room above the elevator to orient the top-bottom so they had to be installed side by side. That level of disengagement that's driven by the complexity of the organization, that leads to these unfortunate outcomes.

Roger Dooley: Jumping back to your military days, Dan, military procurement doesn't seem to overlap with speed and simplicity very much. I think the first image that probably comes to a lot of listeners' minds are $800 hammers or specifications for a really simple product that run 50 pages. How did you get the organization to buy into your techniques for improving speed and simplicity?

Dan Ward : I wouldn't say I got universal buy-in on pursuing speed, thrift and simplicity in the way depending on technology development, but we certainly had a fair amount of success in some pockets. My un-indicted co-conspirators who were willing to really establish programs and lead programs focused around those three things of speed, thrift and simplicity.

Really, the roots of this go back to when I was junior captain, a junior officer looking at where acquisition programs, where military technology development programs went well and where they went badly and looking at what the differences were.

It quickly became clear both in my research and in my organization that small teams with short schedules, tight budgets and a deep commitment to simplicity tended to

outperform the big teams with a lot of money and a lot of time, who had a high tolerance for complexity.

The fast, inexpensive, restrained teams tended to deliver ahead of schedule, under budget, and high-impact systems. The ones who had the biggest budget tended to not only spend the most money but they tended to overspend more. The teams with the small budget just tended to actually have money left over at the end of the day.

That sent me on this path of doing some research and doing some writing, starting with magazine articles and led to these two books, but there was a lot of examples. The headlines that you read in the paper are all about the cost overruns and the schedule delays, but the small, highly-effective, low-cost, ahead-of-schedule type projects tend not to get as much attention from the brass or from the press because all they do is get the job done quickly and simply, which is something I think we really should value and celebrate more than we do.

A lot of these stories in my books and in my articles are trying to help shine the light on some of those good-news stories to say, "Hey, here's where we did it well. This is what right looks like. Here are some of the tools and techniques and practices that these high-performance teams have used that we could use in other situations as well."

Roger Dooley: That's great. We appreciate your service, Dan. I hope that now that you're out of the service, there are other folks who are carrying on the good work and trying to keep things simple and cost-effective.

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Let me remind our listeners that we are speaking with Dan Ward. He's the author of "The Simplicity Code: A Field Guide to Making Things Better Without Making Things Worse." Dan, how can our folks find you online and find your stuff online?

Dan Ward : My website, thedanward.com. That's T-H-E, and then my name, Dan Ward, W-A-R-D.com. You can find me at Twitter, also @thedanward, and the books of course are available at Amazon, Barnes and Noble and anywhere else fine books are sold.

Roger Dooley: Great. We'll certainly have links to those sites as well as the other resources we talked about during the course of our conversation on the show notes page at rogerdooley.com/podcast. We'll also have a text version of our conversation there.

Dan, thanks for being on the show.

Dan Ward : Hey, thanks so much for having me! This was a lot of fun.

Thank you for joining me for this episode of the Brainfluence Podcast. To continue the discussion and to find your own path to brainy success, please visit us at RogerDooley.com.