

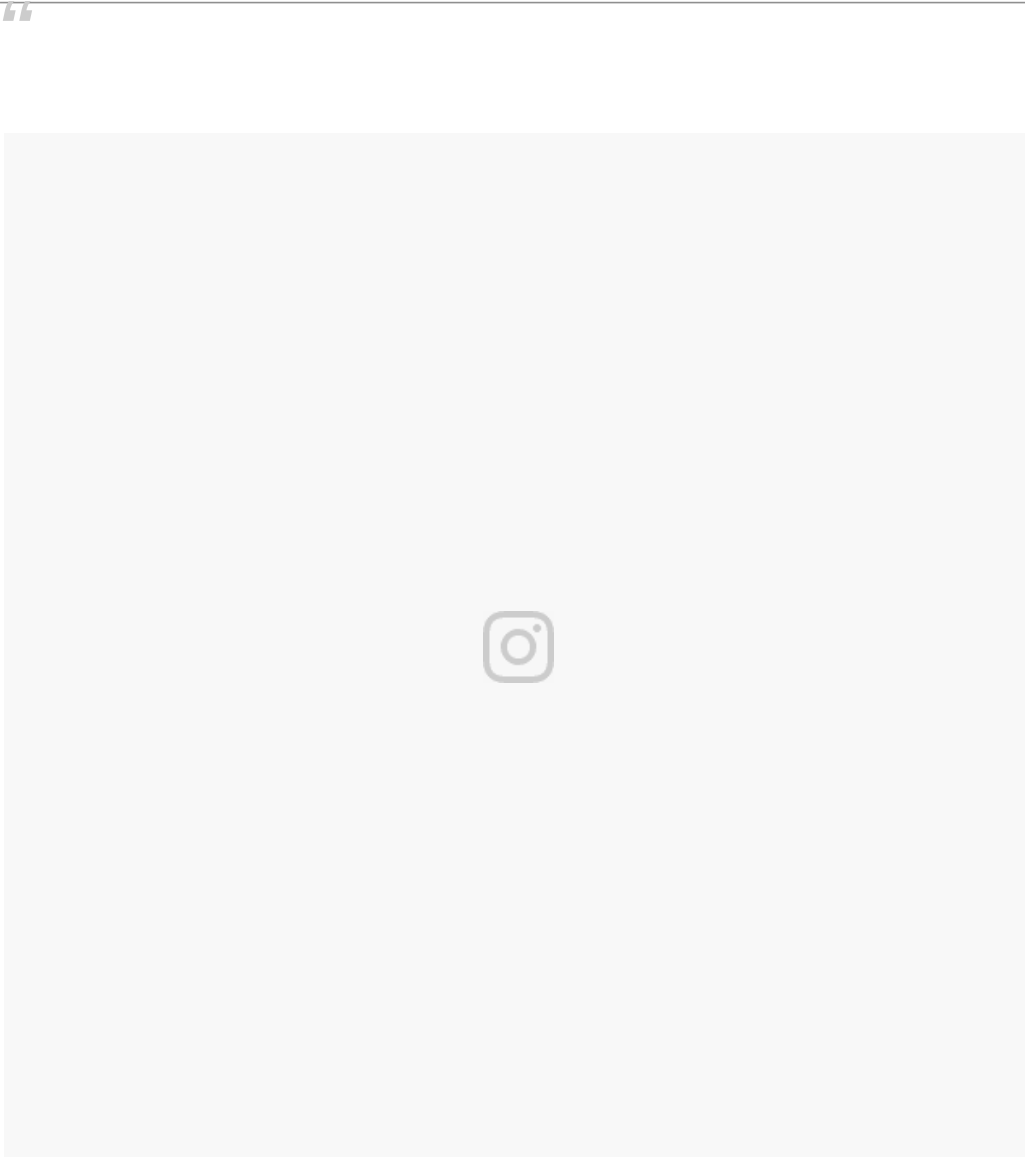
Radarboy on data art, creative coding and 'un-design'



By [Leigh Andrews](#)

27 Jun 2018

Not your typical creative, you may know South African George 'Radarboy' Gally from his Code365 project, and his love for using technology in ways unintended, with dramatic results. Here, he explains how he made the leap from creative director to teaching creative coding workshops across the world and working on data sculpture projects. He also shares advice for anyone out there looking to tap into their quirky talents.



Selfie #24 Blockface #code365 #javascript #creativecoding

A post shared by [radarboy3000](#) (@radarboy3000) on May 27, 2017 at 6:33am PDT

From childhood, Gally has always been an inventor who saw the world differently to most. Having consistently and successfully experimented within that rare space where scientific data meets creative expression, he's moving to New York soon to start an exciting project at an experimental lab for a luxury brand. Gally says this is his ultimate dream come true as New York is where his art/code heroes are.



George Gally

But there's a chance Gally himself is *your* art/code hero. If so, sit back, relax and read this detailed interview, where Gally explains how he got the name 'Radarboy', how he got involved in data art and creative coding, and how he intersects IT, design and art in mind-bendingly clever projects like 'NY Collisions' and 'Twitter TV'...

■ ***Talk us through the name 'Radarboy' and share the condensed version of how you got started with doing what you do.***

The name 'Radarboy' came about at the Shack in Cape Town one boozy Friday afternoon, as both good and ridiculous ideas often do. I was having lunch with Clint Bryce, and we were talking about our love of un-design and the quirky, and what a beautiful city Cape Town was for sucking all these influences up: the signage in Woodstock, old 70s coffee shops, metal detecting, and home-made technological misappropriation.

“ We were musing about how it took someone with a designer's eye, and a very specific designer's eye, to notice and appreciate these kinds of things. “Ah, like a radarboy”, said Bryce. ”

We used to love the moniker of “boy” for any guy who had a specific trait, with “boy” tagged on as a kind of superhero power – perhaps as some kind of ironic nod to superhero names in comics - Astro Boy, Truckboy, Angryboy and the like. And Radarboy stuck.

As to my background, I've have been dabbling in art and computers since early childhood. With my mother an art teacher and my father a musician and early-adopter of digital music production, a career in design and computers was a natural progression.

“ For as long as I can remember, I bounced between dabbling in my mom's art studio, fiddling with my dad's synthesizers or taking apart every device in the house to see how they worked. I dreamed of being an inventor. And really, nothing has changed. ”

From an early age, I began to programme games on the Commodore 64. I was fascinated by being able to create something from nothing and being able to “make television” – moving things across the screen.

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Are you the goddess? #creativecode #code365 #javascript #codeart #cones #radarboy #soundcloud A post shared by [radarboy3000](#) (@radarboy3000) on Jul 15, 2017 at 6:54am PDT

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At the end of apartheid I returned to South Africa, and got a job at Internet Africa.

“ *The web was the wild west and I desperately wanted to be part of it. I instinctively knew it was going to be massive.*

There were no rules. No platforms. It was a blank page. It was still being invented. Anything was possible. And I wanted in. ”

That's where I was introduced to Macromedia Director - a pretty amazing, ahead-of-its-time multimedia tool. And I dove right in. To say I was 'excited' about this new form of emerging media was an understatement. To be able to now create the tech future we had only dreamed about in comics and watching Sci-fi TV shows in the 80s... that somehow always seemed to be dubbed in Afrikaans.

Soon, I started at Tinderbox as an art director. That's where I met Bryce, as well as my then soon-to-be Radarboy partner in crime - Gareth Chisholm, AKA Chillum. This was all pre-Y2K.

“ *Tinderbox was an amazing place at the time. Full of misfits. A mish-mash of designers and geeks. And an open bar.*

It was exciting times, and inspirational to be around such a crazy team of people who all thought the same way I did. ”

But within a year of being there, money and investors were rolling in, the bar fridge was closed, and Chisholm and I left to start up Radarboy.

I've always loved ephemera, obscure collections, weird hobbyists and quirky product design. And that's really how I connected with Chisholm, we both had the same appreciation for the beauty of the imperfection in things and the same kind of humour and delight in the things a Radarboy might pick up on.

It was the end of apartheid, we were young and we were free. The creative freedom I felt also had a lot to do with the tools that were becoming my weapon of choice – Director and then Flash. The timeline interfaces encouraged us to make things that made the web come alive.

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We're finally talking to eachother again... Kinda #itp #led #physicalcomputing #disco

A post shared by [radarboy3000](#) (@radarboy3000) on Jun 14, 2017 at 12:50am PDT

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Experimental interfaces, anti-interfaces. Things that combined our love of film, dance music, animation and magazines, and how we wanted this new media to look and feel – like a cooler version of *ID magazine*, when it was still punk, and other zines and interfaces we loved and admired.

We loved doing things the web and multimedia were not “meant” for – using technology in ‘the wrong way’ - in a naive kind of: “Hey, I wonder if we can do this,” way and then finding a way to do it.

We were more influenced by magazines and TV and graphic design, and old computer aesthetics – with me coming from a childhood of Commodore, Atari and Intellivision; and Chisholm from Amiga and Commodore – than we were about what was going on the mainstream corporate web like websites, screensavers and other such nonsense. But we also had to pay the bills.

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More noise love. #code365 #minimalism #creativecoding #javascript

A post shared by [radarboy3000](#) (@radarboy3000) on Aug 8, 2016 at 3:51am PDT

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Fortunately, our strategy paid off. We had gained the trust of Lucky Strike to build out their digital content and social objects, doing most of the digital output for the famous Lucky Strike parties that happened round the 2000s.

All this time we were also experimenting, trying new stuff, and getting into code. In Flash, I loved the combination of design and code as a form of expression. Though I've always seen myself as a designer rather than a coder, it's at the intersection where I find myself happiest, and wanted to delve more deeply into this. Hardly a condensed version!

❏ **Indeed, but super interesting! That leads us to my next question: What exactly is 'data art' and 'creative coding'? How does it intersect IT, design and art?**

Creative coding is using code as a tool to be creative. Simply put it's 'code art'. For me, data art is a subset of creative coding. However, because most creative coding has some form of input, if you want to be technical, all creative coding is really data art. For me, more and more these days, in most of my data sculptures, the data is just that, merely an input. Data art just adds more significance to the input or data.

I'm less concerned about creating a true visualisation of the data, and more of creating a feeling that represents the data in an abstract and beautiful way.

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Complications are lots of simplicity

A post shared by [radarboy3000](#) (@radarboy3000) on May 28, 2018 at 3:01pm PDT

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Just like a sound visualisation is better when it is not just a literal reflection of the data – like an EQ or visualisation of the sound waves, data art takes the data as an input to create something beautiful, that gets the overall feeling of the data across.

I'd credit John Maeda's book *Maeda @ media* and later also *Creative Code* in making me fall in love with creative coding. Those books were beautiful, intricate, crossings between mathematics, art and code. And though, obviously creative coding has been around since the dawn of computing, Maeda's output and teaching at MIT, I think, really formalised creative coding as a "thing".

The Flash community embraced this mantle, and was really responsible for making a whole generation and community of creative coders, which had a certain aesthetic and mindset.

“ *Pretty much every big name in the creative coding community grew up on Flash. We were young and felt unconstrained, and damn right antagonistic to the formalised design establishment – the web was our utopian dream and we aligned ourselves more than anything with the dance music revolution else that was happening at the same time.* ”

Many of us actually started out with side-gigs designing rave fliers, including yours truly.

Out of Maeda's MIT class, *Processing* was also born – and for most of us wanting to get more power out of our coding, it would become a replacement for Flash. I think Processing really started its rise around the same time Adobe had taken over Flash from Macromedia, and had started to completely muck it up.

Adobe had somehow designed an application by committee, mutating Flash into an unwieldy, unusable and bloated code-learning application that would eventually alienate many of creative coder community. They were listening to the coders, just the wrong kind of coders.

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Sound reactive eyes #code365 #javascript #creativecoding #soundcloud #soundreactive #art
#radarboy A post shared by [radarboy3000](#) (@radarboy3000) on Apr 25, 2016 at 12:25am PDT

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Sadly, though brilliant and so influential, Processing was never the utopia we hoped it would be, lacking the beautiful and special mix of design, timeline and code that made Flash such a great tool.

It was the end of an era. Hardcore coding experience, more than design, was what was now needed in the code-art toolbox. And the biggest kicker of all? Processing had hitched its wagon to Java, which made it barely usable on the web.

A couple of years ago, after having this love-hate relationship with Processing, I decided to ditch everything and start afresh in Javascript, which is no relation to Java in any way, except that developers like coffee!

This was also my break to get out of advertising, where I had been working as a creative director since Radarboy days.

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Things that seem complicated never are #codeart #dataart #javascript #processing #p5js #code365

A post shared by [radarboy3000](#) (@radarboy3000) on May 18, 2018 at 6:09am PDT

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The Javascript hill was long and steep, and though there weren't that many Javascript creative coders out there, the language was exploding and there were enough Stackoverflow answers to point you in the direction of a solution.

■ **Elaborate on a few of your most interesting projects.**

As I've been getting into data art more lately, these are the projects I'm finding more interesting. I've been obsessed with data since discovering Tufte's seminal books and through devouring infographics sites like Information is Beautiful and the brilliant stuff put out by the *NY Times*. At Radarboy, we loved using infographics to tell stories, play with data and make nonsense inferences.

I'm currently busy with the Amsterdam Data Project - a series of massive public data visualisations on all the giant media screens around the city, hopefully soon to be in Rotterdam, too. The Netherlands is a leader in public open data, and I've been lucky to be commissioned to use it to create these artworks. [Here's](#) an overview of the first one I did.

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The Amsterdam data project is live. Read all about it on [medium/radarboy3000](#) #dataviz #datasculpture #creativecoding #codeart

A post shared by [radarboy3000](#) (@radarboy3000) on Mar 19, 2018 at 11:52am PDT

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Then NY Collisions is a project I worked on last summer, and am hoping to revisit it in the very near future. NY City, soon to be my new hometown, also has a bunch of great public data sets available. In this work, I wanted the data to speak for itself.

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It seems absurd to me that there's such a crazy amount of people killed and injured on the road, and what a devastating impact this has on so many people. There are more than 20,000 accidents in New York every month, leaving a dozen dead and over 2,000 injured. That's around an accident every 30 seconds, and one every 500m of road.

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I wanted to document this especially since we're at the dawn of the age of intelligent and self-driving cars. And our children and children's children are going to look back at this time and wonder, "How did governments ever allow this mad genocide to occur?" Read more about it [here](#).

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Data visualization. Traffic accident injuries in New York - June 2017 #dataviz #creativecoding #generative #minimalart #codeart #data #newyork #maps

A post shared by [radarboy3000](#) (@radarboy3000) on Jul 22, 2017 at 6:54am PDT

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A theme I've been contemplating for a while now is that is or **sentient objects**, or, more precisely, emotional objects. As well as the theme of feedback or feeding inputs back into each other. *The Five Stages* attempted to explore this idea, by creating a machine that took inputs from its environment and turned them into emotion. *The Five Stages* is, in essence, an AI feedback loop, where the sound generates the visuals and where the visuals, coupled with visitors' presence, in turn generate the sound, striking a fine balance between chaos and order. Read more about it [here](#).

I've loved pretty much everything Chisholm and I have collaborated on. Projects floating between tech, humour, design and absurdity. The Capsule projects we did were particularly well received, and great fun to do. Part-magazine, part-

documentary, part-nonsense comedy, these grew out of our desire to document a changing Cape Town around 2000.

We wanted to do a magazine on a format completely unsuitable for magazines – the 2.44mb floppy disk – and seeing how much data we could cram onto it. At that time, the floppy disk was dying as a medium as Macs had already dropped them – and for us, that made it seem like an even more perfect medium. The project looks a bit dated now, but still contains some gems. Here's [Capsule 02](#), which won a bunch of awards:

As you mentioned it earlier, *Twitter TV* is another feedback loop and a homage to the end of TV.

“ *A game of broken telephone using machine learning. A kind of tongue-in-cheek homage to two opposite themes – the lowbrowbrilliance of the .gif phenomenon and the dawn of AI, all mixed up with the zeitgeist and nonsense that is Twitter.* ”

Twitter TV takes a theme as input, pulls up the latest tweets about that theme, and then searches for gifs to illustrate it. It then runs the gifs through Microsoft's cognitive services to ask the machine what's going on in the image and then compiles a new version of the tweet as a gif. [This](#) is best viewed ambiently, as one does TV in a sports bar.

■ **Wow. Let's talk about code365. I know how hard it is to share a new idea, whether that's a blog post, image or coding. How do you stay motivated and what inspires you?**

Code365 is my daily visual-arts routine. I've been coding every day continuously since 1 January 2016, mainly sound-reactive and -generative art sketches. The most interesting and inspiring part of it is iterating and building small blocks that turn into more complicated things.

I love this idea of creating building-blocks in code. You start making these small reusable bits, which enables you to iterate faster and faster. And go in new directions easier. It's a kind of coding evolution. Each block extends, yet simplifies the creative process.

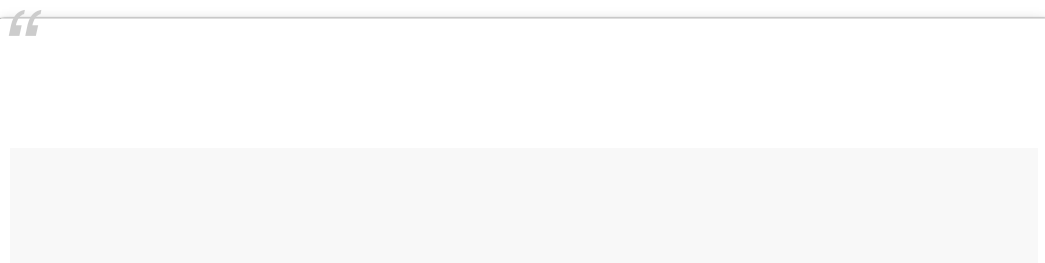
I think having a background in design has helped a lot, and it is still what I'm most interested in: how to balance things and give them space and a feeling, and simplifying until you have the essence of what you're trying to convey.

“ *I'm always thinking and trying to simplifying things. I know some people give minimalism a hard time. But for me, the pure, graphic essence is beautiful, emotive and inspiring.* ”

I'm always on the lookout for new things.

I can see a tile pattern in someone's house, something in nature, old logos, or by visiting galleries – being inspired by old minimalist and conceptual artists like Sol LeWitt, and old computer art and animations from the likes of Manfred Mohr and other early pioneers, net art, or even some graphic design on say Pinterest, which gets me thinking, “I wonder if I can do that in code? And how would it work being sound reactive?”

Invariably, once I start working on it, and iterating, it eventually goes in a completely new direction, what I love about this kind of code freestyling the most. Because the Javascript canvas is relatively slow – you always need to simplify and optimise and find tricks to get the performance you want, which I also find pretty interesting and creatively challenging.





For you. Ooh for you. #soundsculpture #codeart #code365 #yesitsdoneinjavascript #soundcloud

A post shared by [radarboy3000](#) (@radarboy3000) on Nov 27, 2017 at 3:40am PST


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If things are getting too bogged-down, that's a sign that what I'm doing is overly complex. It kind of keeps you honest. I have a rule that if I repeat something more than three times, I need to make it reusable, as a function or an object. And so, over the past three years of code365, this has built up into a nice library of tools and tricks that helps me get to what I have in my mind faster.

But this is not always the case. Still sometimes simple things take way too much time and have me scratching my head. I also obsess over stupid details way too much. But I love coming back to stuff months later, and see how my coding has improved and also being pleasantly surprised by stuff I've done. I'm like: "Did I do that?!" And it's invariably a catalyst to further iterate on those ideas.

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Hue saturation brightness #codeart #code365 #everyday #digital #minimal #newmedia
#soundreactive #soundcloud #minimalism #digitalart

A post shared by [radarboy3000](#) (@radarboy3000) on Aug 25, 2017 at 3:06pm PDT

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I by no means see myself as a coder. Although I'm getting better and better at it.

“ Code was always just a means to an end – creative visual output. I was pretty good at Maths in high school despite never studying it. It just came easy to me and I studied Politics instead at university, but now I really struggle with it. So often, I'll try investigate a mathematical formula, or see how it can relate to the kind of visualisations and generative stuff I'm interested in. ”

It's also a **compulsion** that keeps me motivated. Now that I've come so far, I don't want to give up. I've also seen the tremendously positive response to Code365, and that makes me want to go on – as does jealousy. I'll see beautiful stuff from other designer/coders that makes me want to get back to the computer and do better.

Luckily my better-half, Erica, is a fan and is very understanding of this. She lets me get on with coding and helps me decide what to post and what not to. I used to hoard my work because it was all “unfinished” – I have hard drives full of unpublished stuff in Processing – now I just put it out there as soon as possible and iterate.

But I do go through spurts of posting and not posting and of being too self-critical.

■ **You've lived and worked all over the world. How does a country's culture infiltrate and mould its creativity?**

Obviously environment determines consciousness to some extent. But I think as a global culture, where you live doesn't really matter that much anymore, except giving you the head space to create.

I lived in Japan for a number of years, one of the most inspiring places, yet feel my creative output was in a kind of lull there. I guess the more boring a place is the more time you have for creativity – probably why I started code365 in Singapore!

“ The real culture that influences my creativity is the global culture. ”

More than geographic space, it's virtual communities - in the past it was the Flash and Processing communities, and now I'm inspired by the likes of growing visualist communities, the TouchDesigner guys, and just generally by the output you see from everyone on Instagram (especially the Cinema4D stuff), as well as [CreativeApplications.net](#), Twitter or wherever.

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Sound colours #soundreactive #soundcloudmusic #codeart#minimalart #motion #simple #javascript
#minimalist #code365 #newmedia #newyork #color #audio #audioreactive

A post shared by [radarboy3000](#) (@radarboy3000) on Aug 16, 2017 at 7:36pm PDT

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❏ **Consider me inspired. Let's end with some advice for anyone out there looking to similarly tap into their talents, even if they're not necessarily mainstream or understood by the bulk of society.**

- **Do what you love:** I spent so much time trying to do the right thing and listening to those conservative voices of reason, pretty much all of it ended up being wasted time. So do what makes you feel good and be persistent.
- It's all about output.
Put your work out there, even if it is 'unfinished' – it's no good sitting on your hard drive. The best work and clients I've landed have come from someone seeing one of my personal projects.
- If you're working someplace and have nothing amazing to show after six months it's time to **make some hard decisions**.
- Don't get sucked into advertising. **Connect with like-minded people**. Collaborate, they will push you further. Do as many exhibitions as you can. Participate in hackathons and competitions. There's always online exhibitions happening. Participate.
- Archive and document everything properly. And definitely **don't take yourself or your work too seriously**. Have fun, do what you love, don't give up, iterate, keep improving your skills, and you'll be more than fine.

Get inspired by Gally's Code365 projects [on Instagram](#), follow him [on Twitter](#) for the latest updates, and if you want to get into creative coding, take the time to go through Gally's tutorials on [Medium](#). That's the essence of #YouthMonth: You're never too old to learn.

ABOUT LEIGH ANDREWS

Leigh Andrews AKA the #MilkshakeQueen, is former Editor-in-Chief: Marketing & Media at Bizcommunity.com, with a passion for issues of diversity, inclusion and equality, and of course, gourmet food and drinks! She can be reached on Twitter at @Leigh_Andrews.

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