



Thunderbolt

Gunzel

A phenomenology of the individual
in autism education at the position
where special interests meet the
incompleteness of the open system

Craig Smith

An individual is a high dimensional system evolving over space and time.

Peter Molenaar

The surest way to corrupt a youth is to instruct him to hold in higher esteem those who think alike than those who think differently.

Friedrich Nietzsche

Thunderbolt Gunzel

The better a societies capacity to engage authentic dialogues with individuals who vary from the compliant majorital expectations of that society, to open dialogues between individuals with an explicit endgame in sight that individualism will be heightened at the expense of any idealised conformity within that society, the better chance that particular society has for inclusive ends.

To drive through regional New South Wales is to drive through a Jungian landscape of disseminated luminosities, and like all metaphors it feels like a direct mirror of the self, of the inside turned out and spread across infinite plains of white bark and yellow fields, of broken down sheds overgrown with vines amid big skies and spontaneously dense treescapes. Currently I'm making my way over the Great Dividing Range, and I stop to film a kaleidoscope of butterflies as they dance above roadside shrubbery only to fling themselves over a two kilometre drop that evaporates in a sudden declivity, and they play above this vertigo inducing expanse before toddling back to the roadside, making me feel a lot safer and more grounded in the process.

I've been driving for three hours, en route to a school I'll be working with for the week on autism pedagogy and universal design for learning. Driving solo for this length of time, just nearing the half way point, provides terrific opportunities for

extended reflection on any select topics of choice. With a view that I'll be working with teachers on understanding the phenomenology of autism through the lived experiences of students on the spectrum across their high school career, I am thinking a great deal about that oft repeated notion said time and time again, attributed most frequently to Dr Stephen Shore, that if you've met one person with autism, you've met one person with autism. I'm fascinated in this idea of the individual, of the unique experience and representation of an individual who strays outside of our projection of some illusory average, mainstream, undiagnosed humanity, and how we do or do not find community with a world filled with all the other unique manifestations of our species.

Having played through a few albums already on this trip - a Seiji Ozawa conducted concerto of Bartók, a new Aphex Twin record, singing along to some Radiohead - I resume an audiobook I've been listening to lately, Ready Player One by Ernest Cline. A very popular science fiction book that I'm only just getting around to learning about, the novel creates a near future version of our world where, the earth lacking fundamental resources of nearly every kind, remaining humanity chooses to live plugged in to a simulacrum of reality generated by an incredibly powerful internet software that you connect to using a headset and haptic inputs. The plot of the book follows the quest to solve a massive easter egg puzzle that has been set within the simulacrum by the software engineer who dreamed up this new internet reality, James Halliday, who goes by the online name Anorak and has since passed on, and is suggested in the book to have been on the autism spectrum. All the usual tells that might be associated with a software engineer on the autism spectrum are present within the personality of the character, particularly his severe challenges

with interpersonal relationships, but it is the creation of the puzzle that is central to the novel that gives us our best insight into a useful consideration of autism.

The puzzle that Halliday created requires those who are seeking to solve it to enter into Halliday's mind and become as well acquainted with his own special interests as he was. And his special interests are, as would be expected, very specific, with a deep familiarity of them an utmost requirement if you are to have any chance of working through them to solve the puzzle. Hence his online name, Anorak, slang for a person with a borderline obsessive interest in niche subjects. Demands are set upon puzzle solvers to, for example, play Halliday's favourite video games in a recreation of his childhood bedroom, to line by line recite dialogue from his favourite movies such as the 80s hacker film WarGames and Monty Python and the Holy Grail, and to locate and then blow into the infamous plastic whistle found in packs of Cap'n'Crunch cereal in the 1960s that the American computer programmer John Draper found could create a 2600 hertz tone that, when whistled into a phone line, would provide administrative access to that phone system.



Most anybody who has had the privilege of teaching a student on the autism spectrum will instantly recognise how by necessity we so often become the puzzle solvers with similar demands placed upon us, to learn about the student's favourite video games, to recite specific dialogue from favourite television shows and movies, to understand the details of very particular fascinations with niche subjects that could be anything from naming different breeds of dog, to recalling the order in which train stations appear on local rail lines, to illustrating the flags of countries around the world, to whatever and everything else. For a student on the autism spectrum who has strong special interests of this kind, with all of the expressive and receptive challenges that come with being on the autism spectrum, for the student who wishes to connect with another through a dialogue on these interests, what could be more existentially satisfying than creating a simulacrum of the contents of their mind for you to plug into and experience in a way that typical communication channels could most never allow for. I think that many of us would like the technology to be available that would allow us to open our mind to select others in a way that could allow for those others to understand the sensory shadows within our memories, those symbols of private language and nostalgic preference and fascination that can never be properly articulated, in an effort for us to feel more humanly connected with those we invite in. Is this not a measure of what is happening when we engage with the special interests of our students in order to better understand who they are and what is of value to them so that the dialogue between student and educator can be most effectively composed?

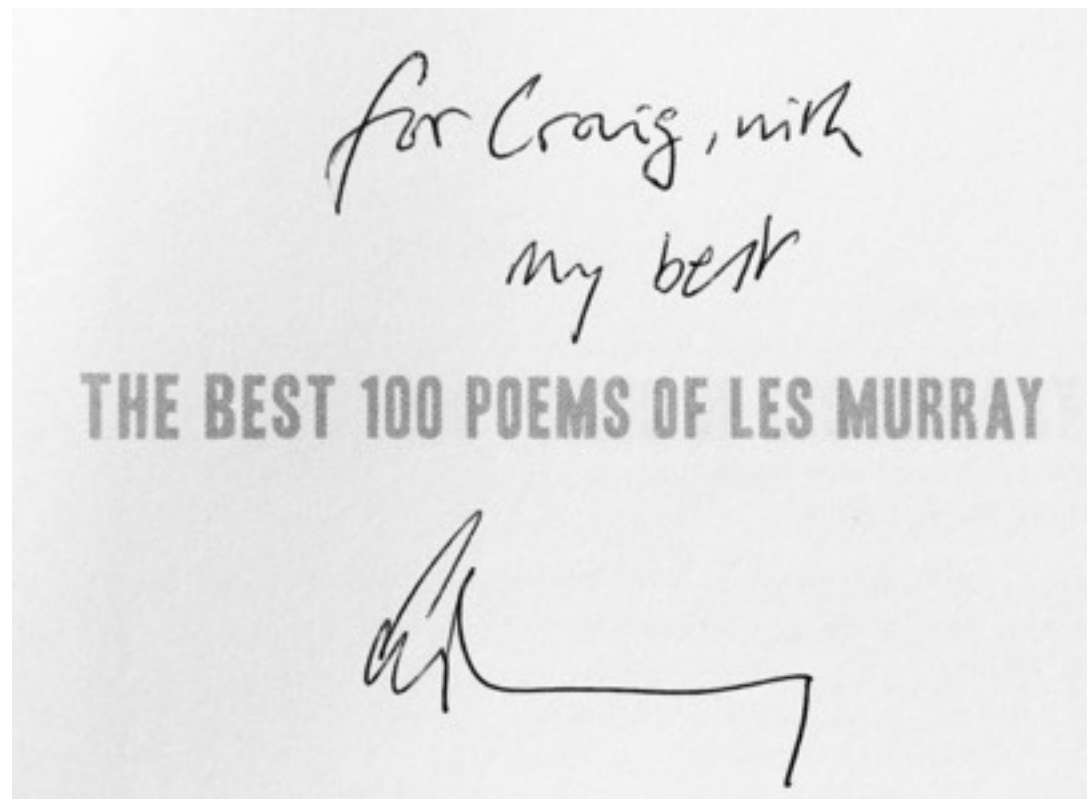
Over the other side of the Great Dividing Range now, I stop at a disparity and park the car near a weatherboard milkshake station. Taking a break at one of the

tables, with the most delicious vanilla milkshake I have ever tasted, I read from a book I've brought along with me for the journey, *The Best 100 Poems of Les Murray*, to get a deeper sense of the landscape I'm passing through out here, like in his poem *The Mitchells*, where one man is overheard saying to another about *the drought that year. Yes. Like trying to farm the road*. But it is a poem about his son on the autism spectrum, *It Allows a Portrait in Line Scan at Fifteen*, that I am most connected with now however, tracking my interest in considering the phenomenology of the individual in autism education through a lens of understanding the role that private language and special interests play in this consciousness. In the poem, Murray describes these facets in his son -

He can read about soils, populations and New Zealand.

On neutral topics he's illiterate.

He describes how his son can draw a map of Earth's fertile soils freehand, how his favourite country is the Ukraine as it is nearly all deep fertile soil, how he also knows all the breeds of fowls, and the counties of Ireland, and how his son illustrates their family farm, and how he considered that children were only allowed to watch animated films, as all other naturalistic movies were for adults only, until he saw *Who Framed Roger Rabbit*, with its blend of both the animated and the natural, which then authorised him to be able to enjoy all other movies. I'm taken by the range of special interests Murray's son has that are characterised by his lifestyle, by living on their rural property in Bunyah, amid the soil and fauna and the shows viewed on the family television.



I think of many students I work with who have special interests generated by the situations of their upbringing, one particular student comes to mind who was fascinated with the locations of public phone boxes in the neighbourhood, who had a grandfather who worked for the national telecom company. You could give him a suburb around our area, and he would tell you where all the public phone boxes were in that suburb. One day he was looking at a phone box with his grandfather and he asked why the lights were always on, during the day, in the phone box. His grandfather told him that this was because one power channel was sent to the box to power both the operation of the phone and the lights at the same time. His grandson thought about this for a moment and then asked why the power channel couldn't be split, to power the phone throughout the day and night, but to have a separate channel to only illuminate the box at night, on a timer, so as to save power. With the position that his grandfather had in the telecom company, he was able to make just this happen, as it was a notion that had never previously been considered by the engineers installing the original phone boxes. This led to a national upgrade on all the phone boxes to this

newer, more energy efficient model, given the name X2, with the X signifying the first letter in my student's name.

Back in the car now, with science fiction Ready Player One visions of virtual computer generated simulacra of the special interest contents of a mind combining with the dry rural landscapes described by Murray, the hot soiled heaviness of the sky, the paddocks full of ghosts, the stony hills, I let my mind wander into some sort of cyberpastoralism that evokes a field of paperbark trees that glitch on and off, their branches flickering between solid materialism and pixelated garble, a wheat field behind them with horizontal monitor scan lines imbued amid the rows of yellow, the sky smudged as the sun leaves reverberated echoes through polygon clouds. I stop the car to take a photo of a single tree that has grown into the shape of a giant H, and as I walk towards the tree I see a large duck egg beneath it, nestled amongst fertile soil. I'm reminded of a line from a book by German author Hermann Hesse that I read over a decade ago, a book that referenced notions of individualisation as described by Carl Jung, ideas about how an individual comes to recognise who they are and how they can become who they are, in a scene where there is a painting of a bird breaking out of an egg, a character analyses the painting by saying, The bird is the individual, and the egg is the world.

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(It's a Saturday evening and a super ethical reality Duck heads into a comedy club to watch a few sets and, why not, he might even stand up and tell a few

jokes, the night is Jung. He takes a seat at a table near the front and waits attentively as a fire engine takes the stage. The engine is classic emergency red and opens with a few siren gags, bending the octave of the siren into a quickly descending tone that gets funnier the lower it descends. The Duck and whatever audience there is politely applaud, and the fire engine sort of bows, leveraging its front half in a neat balancing act on its back wheels as they turn inward to support its arching mass. The fire engine is silent for a half minute, looking around the stage as if seeking inspiration for its next gag. Seemingly having come up short, the fire engine sighs and unfurls its fire hose and begins watering the Duck and the surrounding tables, to much applause until a bouncer escorts the fire engine off stage and the club owner reads out a list of upcoming dates the engine will be appearing at other comedy clubs both locally and interstate over the next six months.)

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I watched a movie a few months ago, Wizard Mode, about a young man on the autism spectrum from Canada, Robert Gagno, ranked number one in pinball in Canada which the movie documents through following him to various competitions and exploring his childhood fascination with pinball and the role that his autism plays in his love of the game, his tenacity at practicing and the laser intensity that he brings to understanding the physics and luck of pinball, as well as the way he self regulates emotionally and physically to manage the sensory overload of pinball tournaments and the frustration that accompanies the game, and how now, at an age where Robert is seeking to move out of home, he approaches independence through seeking out employment

opportunities. The movie further crystallised for me the value of special interests in framing a life. It reminded me of a quote I often use when talking about this topic, from the book *The Orchid Thief* by Susan Orlean in which she describes a man who moves between special interests with a violent declaration of one day being fascinated in one thing and then suddenly putting it behind him, in which she considers -

There are too many ideas and too many things and people.

*Too many directions to go. I was starting to believe
that the reason it matters to care passionately about something,
is that it whittles the world down to a more manageable size.*

For Robert, as depicted in the movie, pinball is absolutely the force that whittles the world down to a more manageable size. I have worked with hundreds of students who have expressed very similar sentiments, students who care passionately about playing a musical instrument, or reading a favourite book series, or whatever the interest may be, and how this focused expression of themselves provides a cornerstone for framing the world around them in a way that little else can. One teenage girl once told me how it was as if her special interest in dragons provided her a safe little boat with which she was able to reside in to navigate the rough, uncertain waves of reality that she was at the mercy of. She was more confidently able to take on the social and communicative challenges that faced her so long as she could bring with her the things she cared about and knew everything about. There is a great confidence

that comes with being able to master a closed system, a space where you can identify the boundaries and then learn the contents therein. Much more so than engaging with the incompleteness of open systems such as comes about through navigating a daily life.



Let us take another recent documentary movie on autism for another perspective on the role that special interests can play in the life of an individual. *Life, Animated* is a documentary about a young man on the autism spectrum, Owen Suskind, who is fascinated with Disney movies. Early on in his life he learns to communicate with his family using the dialogue from Disney movie characters, and this relationship with the characters and narratives of Disney later translates into an opportunity for Owen to understand complex emotional and social cues and to relate to the world around him. In this way, special interests acted as therapy for Owen, as both a way of whittling the world down

to a more manageable size, but also to explain how the social communicative world around him functioned.

My big point of reflection for many years regarding these and other examples of young people on the autism spectrum who have strong fascinations with particular special interests, is with regards to the role that these interests have in school education. My central tenet has always been to consider ways in which a student most feels safe and successful in the classroom environment, for which I reference copious studies on the significant impact on student functional and academic goal progress that an educator has when they are able to provide avenues for emotional connection with the student by way of showing respect and understanding for the special interests the student has, as well as the level of heightened engagement that an educator can achieve when they build a curriculum using the special interests of students, and the way that challenge based learning methods that allow for the utilisation of individual special interest areas can best prepare students for life long learning outcomes.

In my essay that precedes this one, Kindness Savant Will Pixelate, I provide a basic framework for ways in which we work towards these outcomes in the school I work for. The framework is the Special Interest Accessibility Components, with three key areas of access that utilise special interests in the classroom - Instruction Articulation, relating to the manner in which we use special interests to assist in providing a direction or an explanation to students, such as using Sonic the Hedgehog characters to explain classroom rules; Content Adaptation, relating to the manner in which we use Universal Design principles to vary the manner in which we present and seek classroom content

through the use of special interests, for example by way of using Lego characters to explain how particular historical events took place; and, Therapy Association, relating to the manner in which we use student special interests to actively address core competency goals that students have, such as using Pokemon to explain social emotional protocols to follow when playing with friends. The core idea here is that special interests play more of a role than simply that of a passing hobby for our students, and ourselves - rather, our special interests are woven throughout all the key markers that provide a quality of life to us, our *raison d'être* for the time that we inhabit them.

Consider Maslow's Hierarchy of Needs, where we have foundational physiological needs such as requiring the provision of good health, food and sleep, whereupon we build layers upon this such as the need for safety, and then the need for belonging on top of this, and then a sense of self esteem, with self-actualisation on top of the hierarchy. It is my contention that the special interests of an individual weave themselves in and out of all of these levels to varying degrees. Consider the need for safety, and the sense of respect and understanding that educators provide their students when they enable a space for the special interests of those students to inhabit during the time they are at school. I hold strong to the benefits here across all layers of need that the utilisation of special interests at school can provide.

In some educational discussions, this articulation of the role that special interests can play in the life of a young person on the autism spectrum can come off as a negation of some form of will to power, of a sense that these young people should be able to overcome themselves and be all the stronger for

it without having their interests pandered to. There are educators who ridicule the notion of following a student's lead in this regard - they question what it is that they are providing as teachers, they say, well, we may as well throw out spelling tests and replace them with viewing Pixar movies, and replace our teaching degrees with certificates of having achieved a high score in pinball. It is suggested by some that we should take a very strict standpoint in the classroom on students who want to bring this part of themselves into school, that it is the role of the teacher to be the sage on the stage instructing our students on what the content of the classroom is going to be and the way that students are going to demonstrate mastery of this content. There is a strong element of fear here that permeates much discussion around the way to manage the varied needs our students bring to the classroom - this fear rises out of a feeling that the educator may not have all the tools in their educational toolbox that they require to meet the needs of all the students they encounter, and that in the wake of this fear the best response is to project a position of increased adult authority or, in other words, of intimidation.

The other response that often follows this trajectory of reasoning is for educators to take a position whereby they claim that all students actually learn in the same way, that there are no individuals in the classroom, that to consider that all students may be unique is to discount the notion of community and society, as the bonds that form us will disappear if we consider that every brain is its own special formulation of self. It would also make teaching, it is claimed, an impossible profession if we are to provide an educational curriculum that caters to the unique whims of thirty students in a classroom. To this, and to the

consideration of the risk of giving up authority by following a students lead in the classroom as mentioned in the former paragraph, I suggest the following.

There is little debate that the role of an adult is to provide strong boundaries and guidelines for children, and it is through the manner in which students can feel the breadth and depth of these boundaries that they are to feel the breadth and depth of adult care, for it is through the provision of these guides that the child is being shown they are important and cared for. This is how I would articulate the best position for teacher authority to be realised. Beyond this, I feel philosophical consideration is best given to the way in which we balance the role that teachers might inhabit with regards to how much content and direction they provide across the school day, and I feel the best place to start here is in how we play with children during their formative years of development.

There is a delicate balance between provision and facilitation that you engage in when you play with a young child - at first, you provide stimulus, you teach the idea that play exists and you bring games to child. You teach basic social communication elements as part of this, the manner in which one face relates to another, the way we use words and take turns and laugh together. Soon after, the child will want to experiment with different games themselves, they will use objects in improvised ways and generate their own sensory experiences. The adult response here should be obvious - following their provocation, you play with the child, you go along with the stimulus that they are providing, you allow for their experimentation with excitement that they are generalising and mastering these skills of play which, we well know, is the manner in which we all come to understand reality, and what is play but the verb for our special

interests. At what point, then, do we give up this understanding of early play experiences and the giving and receiving that ensues, and decide to exclusively take back the role of stimulus provider in a way that closes off the capacity to necessarily follow a child's lead?



This is for each individual educator to consider in their own right - for my part, I cherish the ability to be able to introduce my students to worlds they have never before considered or understood, and I cherish the ability to be able to consider and understand the worlds that my students bring to the classroom. And if it is thought here that this simply means understanding the way that a Mario Brothers game works, then I would suggest further reflection on the nature of what special interests represent for our children and for that which provides our own lives with intention.

With regards to the notion that we should not differentiate our educational provision in classrooms, that all children learn the same way and that we will

deceive ourselves into impossible educational expectations if we are to consider the unique learning profiles of each individual student we work with, there are few better current thinkers who are articulating the flaws of this consideration than Todd Rose, a Harvard professor conducting terrific research on the science of the individual. He published a book, *The End of Average*, that has come to clarify so much of the work that Universal Design and disciplines relating to Personalisation have been building on for many years. Rose relates work that UC Santa Barbara professor Michael Miller was doing in 2002 into studying how the brain retrieves memory, and how he scanned many different brains to identify what the average brain activation is doing during episodic retrieval. After scanning different brains and compiling an average image of what the brain does when remembering something, Miller was surprised to go back through all the individual brain scans and find that not one of the scans matched the average brain image. He repeated all the scans, compiled all the scans into a universal average again, and found once more that the average brain did not reflect what was actually happening in any of the individual brains.

The average was a lie, an attempt at approximating what all brains should be doing, with no relation in reality to the many varied ways in which each of our unique brains activate doing episodic retrieval. Pennsylvania State University professor Peter Molenaar has done critical work across fields of psychology, mathematics and health to define the flaws in using projections of average to try to clarify the workings of the individual, what we now term an Ergodic Switch, where we understand that applying averages to understanding the individual is not simply an unfair process to take, but rather it is a fundamentally wrong process to even consider.

As with everything, the apparent practical obstacle here is actually the way forward - rather than being confronted with the fear of realising that, as Molenaar states, individuals are high dimensional systems evolving over space and time, and that we have to confront this realisation with an educational response in the classroom that necessarily caters to a science of the individual, we can choose instead to be filled with the universal delight that our potential for growing new ideas and innovative models of learning to meet the evolving needs of existence have now manifest in the most myriad ways. Like realising that the ways in which a deck of cards can be shuffled is so staggeringly huge, fifty two factorial, more than all the atoms in our world many millions of times over, the potentials of having a class filled with many high dimensional systems evolving over space and time will start to give rise to exactly what we can be achieving in education. And if this is confronting to traditional methods of instruction and ways of assessing student progress and average pathways that students should follow through and beyond school, than this is a very good thing.

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(A diagnosing professional next takes the stage, carrying a clipboard with a single sheet of paper resting beneath a clip, with a pencil hanging haphazardly from a long green string. The professional says, I have with me here the diagnostic criteria for autism in the next edition of the DSM, we're up to number VI now. Rather than just a single diagnosis of autism spectrum disorder, however, we're expanding the accordion once more. Asperger's is back, and so is PDD-NOS, but we're also adding an additional forty nine varieties of autism, so

we'll have fifty two types of autism in total. We're really covering all our bases this time. I should explain, however, that while there are fifty two types of autism, these are just the primary diagnostic markers, the actual diagnosis itself can only be achieved by arranging the fifty two types of autism in order, from one through to fifty two. Only then, when you have a fully arranged deck of diagnostic markers, can we accurately clarify the type of autism that represents you as an individual under the DSM VI. There are approximately $8.0658e67$ variations to the deck. A royal flush occurs only one of every 649,740 hands. We haven't got a suitable diagnostic statement ready for a royal flush yet, stay tuned for DSM VI R for that one. The super ethical reality Duck claps a little in an otherwise silent room, and the house lights start to come up as the professional steps down.)

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Following Thunderbolt's Way to its end, streaming around dry ravines and past trees that used to be antique rocket ships and have since given up the gift of flight, elements of the cyberpastoral return, Thunderbolt Ports with eight times the bandwidth of USB that transfer data to Captain Thunderbolt, the gentleman bushranger, escaping detection by way of phasing across the landscape, glitching out of reach in fragments of disappearing transmissions. Listening to another Aphex Twin record now, Cheetah EP, named after a notoriously difficult to program synthesizer that is used to compose the sine wave bass lines and staccato hats throughout the album, I'm taken to thinking about the musician behind the Aphex Twin moniker, Richard James.



Known for being at the envelope pushing extreme of electronic music composition across the nineties, James was known almost as well for his eccentricities, such as living in a bank vault in London, owning a tank and performing a live DJ gig by dropping the needle on some sandpaper and a food mixer. His first album, now an established classic in every electronic music catalogue, was composed at fourteen years of age, using what James refers to as his synaesthesia to see and smell the melodies that he was generating. It wasn't until James broke a thirteen year drought between Aphex Twin albums in 2014 that he started to reveal in interviews that he considered himself to be on the autism spectrum and had family diagnosed with autism. James had been living in rural Scotland with his artist wife and two children, in seclusion for the most part, with only a small handful of live performances across the decade, dedicated to what appeared to be as much of a disconnect from public interaction and interference as possible. This level of isolation changed after the release of his 2014 album as he has started to reveal more music that he's been working on alone for years, including the album I'm listening to now, released six

months ago, which has become known in part because of a long, experimental film clip that accompanies one of the key songs on the album, created by a young twelve-year old fan from Ireland who is on the autism spectrum.

There is surely something very special about being able to dip in and out of being in your own world, living in a quiet rural pocket of the United Kingdom, composing idiosyncratic music compositions by yourself for a decade, and then deciding to re-engage with the music community and public again before surely, it's just a matter of time, taking another long excursion into solitude. There is a consideration here that strikes at the heart of a lot of our reflections on the manner in which we foster the engagement of special interests with our students, and that is the balance that needs to be established between solipsism and community. For many of the students I work with, the dedication to the special interests they are fascinated with can teeter precariously on the precipice of connection and isolation.

On the one hand, there is as aforementioned a talisman quality to special interests that can provide an increased confidence and capacity to communicate and socialise with others. I'm thinking here of things like the recent Pokemon Go trend where I met many individuals on the autism spectrum or with a general sense of introversion who exclaimed that through having a shared public language around understanding Pokemon they were able to go out and play the game with others in a way that they would have not previously been able to do. I'm thinking too of a student of mine who, when he started to become confident in sharing the music compositions that he toiled away on, he made all sorts of tremendous new social connections with others. However, this

can go the other way too, such as a student of mine who became more and more reclusive with his fascination in animated movie logos, who preferred at every juncture to spend more time with his special interest than with what might be considered to be more social opportunities. This is, of course, only a social standard of interaction that I am projecting here, and not one that I believe my student would have considered in the same way - we all have different amounts of social interaction that we need in our lives.

In a way, my focus on utilising the special interests of our students in the classroom is a way of balancing this need, of bringing personal fascinations that the student might find difficult to attach a public language to, into a communal class space where they are often thrilled to find that other peers share the same interest or are taken with wanting to learn more about it. This has resulted in some wonderful situations where our students have taught each other about their special interest in a way that allows them to consider the interest from a perspective outside of their own.

The internet plays a large role in this space of balancing solipsism and community. As an arena within which any special interest can find a home with a dedicated group of enthusiasts always ready to talk and share information about the topic, the internet connects people with niche fascinations in a way that no other system has ever been able to do. One of my own areas of special interest is in the lonely aesthetic of superquiet, nearly abandoned shopping centres and the surrealist reinterpretations of elevator music that might be heard in these shopping centres that has come to be called Vaporwave. At what other time in history would be able to communicate with others about such a particular

fascination. The risk however of finding community exclusively in online spaces might be one associated with the prevalence of hikikomori, a social phenomenon of young people seeking extreme isolation from society that was originally observed on a mass scale in Japan but has since achieved global prevalence. Defined as a diagnosis after a young person in their late twenties has isolated themselves in their home without engaging with external society for longer than six months, with a preference for engaging in online gaming and internet forums, there have been studies linking hikikomori with those on the autism spectrum, as well as to post-traumatic stress disorder and other needs that may overlap across the population. Much like the debates that continue around whether screen based technology is having a negative impact on children, the answer in my eyes is to not chastise the technology here but rather to critique the most effective implementation and value of it in both connecting and separating individuals and educating everybody from a young age on the best modes of understanding it.

When I think about questions we have regarding to the use of technology and the manner in which individuals relate to it, I think about how young our relationship is in the eyes of future history. How many generations have we had connected to wireless internet so far, to iPads, to online forums, how many generations have grown up understanding how to use Twitter from a psychologically mature standpoint? Not even one. We are so new to all of this, which causes a huge amount of excitement and an equal amount of trepidation - but what if we were to use Schopenhauer's telescope for a moment, the tool of the great German philosopher who asked us to travel fifty years into the future and invert a telescope, look at it through the wrong end, from that time in the

future so we are looking at ourselves with the advantage of fifty years experience, what would we suppose to understand about our current situation, given this philosophical hindsight? Travel three hundred years into the future and look back at where we are now with Schopenhauer's telescope, how might we frame an understanding of our relationship with technology today given the hindsight of looking back at ourselves from three hundred years in the future? Surely a lot of the immediate gloss and excitement of the technology of today will have melded into a much more natural ecosystem that we abide our lives with, and in this way we might not fear so much notions of screen time or the impact of online community as a new and sudden threat to a good social life, but rather we might be more wise in how we understand the role of technology and progress from there.



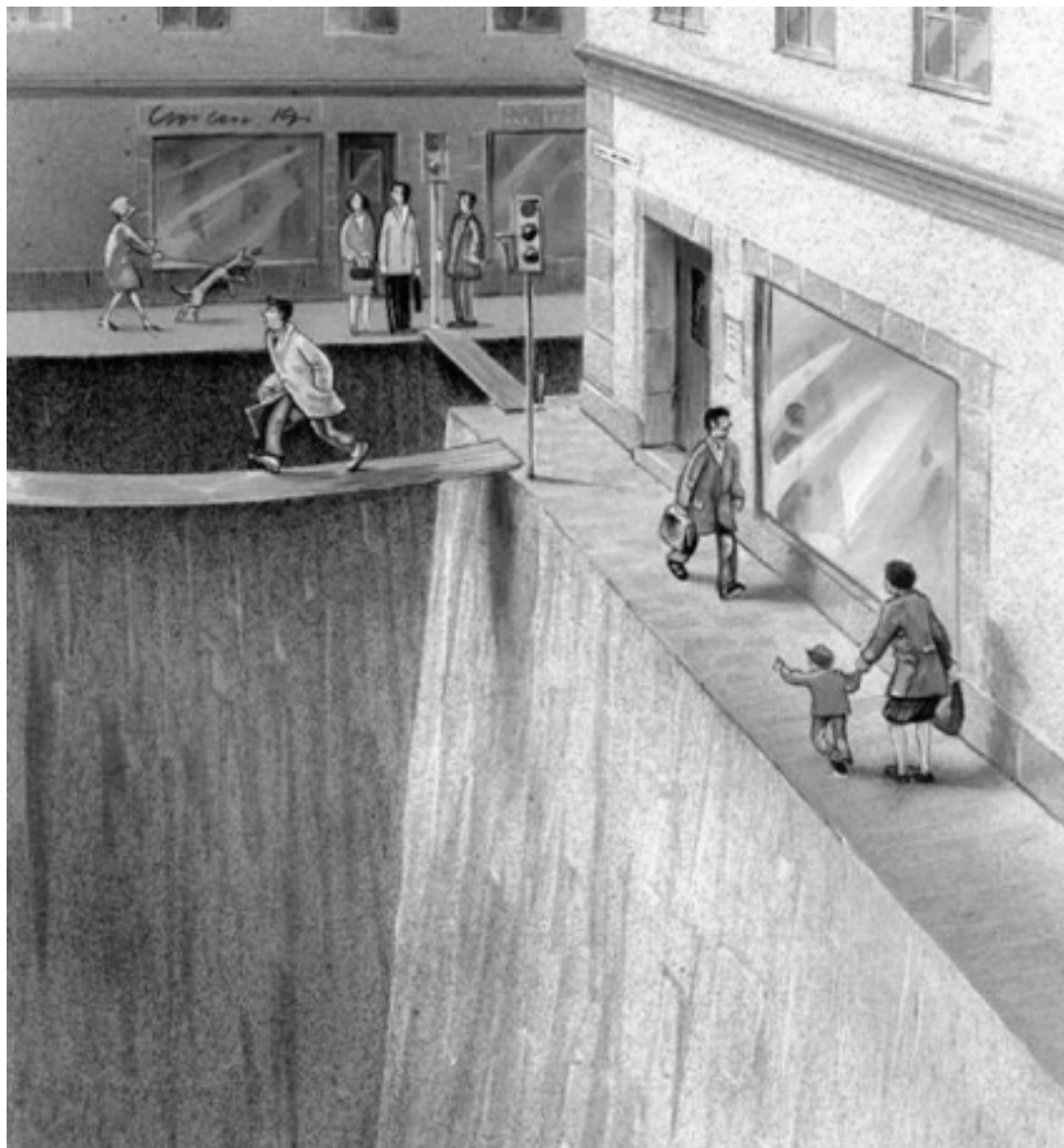
I consider Schopenhauer's telescope to be a very powerful force for thinking about where we are with education and our understanding of the role that the student on the autism spectrum plays in that space. On the topic of inclusion, following on from my discussion in Kindness Savant Will Pixelate, I believe we are given great pause to consider that there are many students on the spectrum or otherwise who do not readily find success within the current structures, both

physical and ideological, of our mainstream education system, or at times with our specialised education system, and yet if we were to turn the telescope around and look three hundred years hence, to both stand in the future and look back at ourselves in this current time, we might surely consider that schooling could change a great deal to accommodate more students than the current day system can support.

With our goal at all times to reach all learners, I know of many students today who, though they have not found success in current schooling environments, would suit an evolved version of schooling that would also capacitate all other students as well, a truly universally designed educational space that can restructure our imaginations in the same way that we are surely socially progressing to, for example, a post-car world in which we might imagine cities without roads. In the same way that it is difficult to imagine a city without roads, where the roads might be excavated and large holes left behind to provide us with a clear visual of just how much space roads are taking up in this era of car, we need to be philosophically strong and visualise the sort of educational spaces that will be able to cater to absolutely all students in the future, to understand the large, obsolete holes that will need to be left in the wake of such evolution, and the potentials that will come about by having so much more existential space to work with. It is time to turn the telescope around.

For now, there are roads, and as I pull into the small township I'm visiting for the week, passing over a bridge that leads into the main street and finding the hotel I've booked, I take stock of what all of this means with regards to the work that we have in front of us to properly understand the power of recognising students

as individuals in the classroom. After I've unpacked my bags in the neat little room I'm staying in, I head around the corner and find a quiet restaurant to dine in with my iPad and a few books under my arm. I read up on universal design principles, I read up on the autism pedagogy framework I've been developing with my colleagues at Aspect Hunter School, and I remind myself of just how many infinite ways there are at approaching the challenges we face in best supporting the individual needs of our students.



So long as we are marching on the road towards providing students with the best tools possible to help them understand themselves as individuals, and in

the process so that we too can come to best understand and support our students, we are getting closer to being able to show that the more you feel like you are reaching towards some great central truth about education and society, you are really just reaching into the centre of yourself. There are many who would seek to oppose the methodologies of individualisation in education and the utilisation of special interests and related approaches in the classroom, but it is worth reflecting on just where these opposing standpoints come from - I consider that there are Closed System and Open System positions in educational philosophy.

Advocates for a Closed System version of education are advocating for classrooms where all students are understood to learn the same way, where traditional teaching methods and behaviour responses are implemented with a view that a high degree of mastery is inherently achievable in a Closed System - you have a school, you have children, and all that we need to do is perfect the manner in which these children receive and express the academic content put to them. Advocates for an Open System version of education look towards innovative means for better understanding individual students and what life long learning looks like to them, and they know that they don't have all the answers, because an Open System is just that, its doors are open and the space presented is unknowable because it flows out of the classroom and into the big incompleteness of reality and back again. There are no standardised assessments seeking to evaluate mastery in an Open System, because the boundaries of the system are unknown and there are inherent contradictions within everything because the better education system that an Open System wants to be does not exist yet, it is still being brought to life. Rather than

assessments seeking mastery, the focus is rather on engaging with the individualism of each student and the models of quality experimentation and progress that result. The focus is on developing life long learners that understand their different brilliance, to establish a school as an open dialogue between students, teachers, parents and community, where the incompleteness of human understanding is relished and understood as the only way to move forward.

This is my position, the Open System - respect for the individual, utilisation of their special interests as a deep part of the school experience, tools to help the student understand themselves and a curriculum that supports skill acquisition towards developing functional, independent, life long learners. Let the pinball tables illuminate, let the Disney movies dance, let the Cap'n'Crunch whistle sing, let this be the end of average, let us balance solo pursuits and big social communities both offline and online and let us turn the telescope around and embrace for a view of ourselves three hundred hence and know that we are doing all that we can to reach all learners, one by one.

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(The super ethical reality Duck stands up and, even though the house lights have been illuminated, he climbs the little stairs to the stage in front of the microphone and looks out at the audience. He considers whether he should recite a variation of the old Wittgenstein line, If a duck could talk, We couldn't understand him. Blinking into the house lights, the Duck can see that this actually isn't a comedy

club at all. It's a classroom, and all the chairs and tables are arranged in classic Plato formation. The students aren't here yet. The Duck still has time. He quacks into the microphone at the front of the classroom, listens to the fire engine rounding the side street beside the field, looks at the diagnostic manual sitting on his desk, and thinks, Yes. I definitely still have time. What we cannot teach we must pass over with great noise).

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Everything All of the Time: Chronos and Goals

There is a moment in Dr Debra Kidd's 'Becoming Mobius' where a year seven student, Neil, is asked by Debra to tell a classroom full of parents what it is that he has learned about immigration and multiculturalism from a new curriculum model that has been recently implemented. There is a long pause, and while other students excitedly raise their hands to answer the question, and Debra feels the rising imagined voices of the parents as they shift uncomfortably and want to stop the seeming endless void of time that is being presented by Neil's silence, there is a very particular sense of 'big time' that passes into resolution as Neil finally speaks and provides a wonderfully wise response that then sets into motion a series of responses from other students that secures the success of the question and the event. It feels like within the two poles of language spoken, first by Debra's question and then with Neil's answer, there is a period of palpable time that envelops everything that has ever happened or will happen in education. In this silence, the truth is the whole, it is Hegel's concrete universal, that which 'with undimmed clearness finds itself at home in its antithesis'. In this case, within the silence there is all the noise of what we might be trying to do when we consider the education of young people.

As I approach the new school year here in Australia, in the school I work in where we focus on the education of children on the autism spectrum, I am taken to consider the notion of time and the privilege that inhabits us in being able to experience shared time with the students and families that we work with across

the year. This idea of ‘across the year’ guides so much of what we do, from weighing up Hattie’s notion of ‘one year’s progress for one year’s input’ against the bigger picture of exactly what ‘one year’ in the life of a child actually contains, to all of the Individual Education Plan goals that we frame robustly to arch across a year, to then be divided in half for half-yearly reporting, and then divided in half again for quarterly updates, and then divided again, and again, until the race between the goal and the lived experience of the child starts to feel a whole lot like Zeno’s paradox of Achilles and the tortoise, where Achilles tries to overtake the tortoise, or at least catch up to the tortoise, but every time Achilles reaches the position the tortoise last was, the tortoise has since moved on, leaving Achilles with still more distance to cover, forever.

We talk about time very seriously—in special education we place a huge importance on the notion of early intervention, certainly with regards to autism we focus on starting our therapeutic education as soon as possible so as to address communication, social, emotional, sensory and processing needs at the earliest possible stage, and from there we set our Individual Education Plan goals across the year as infinitely divisible signposts, before establishing a pedagogy of Learning for Life, for the life to come when our students are no longer with our school, when they have moved on to other educational spaces or beyond educational spaces altogether. All of these periods of time are critical periods where we understand our need to maximise the impact of what we do at every tick of the clock.

In Debra Kidd’s two books, ‘Becoming Mobius’ and ‘Teaching: Notes from the front line’, the Deleuzian notion of chronos and aion time is presented as a way

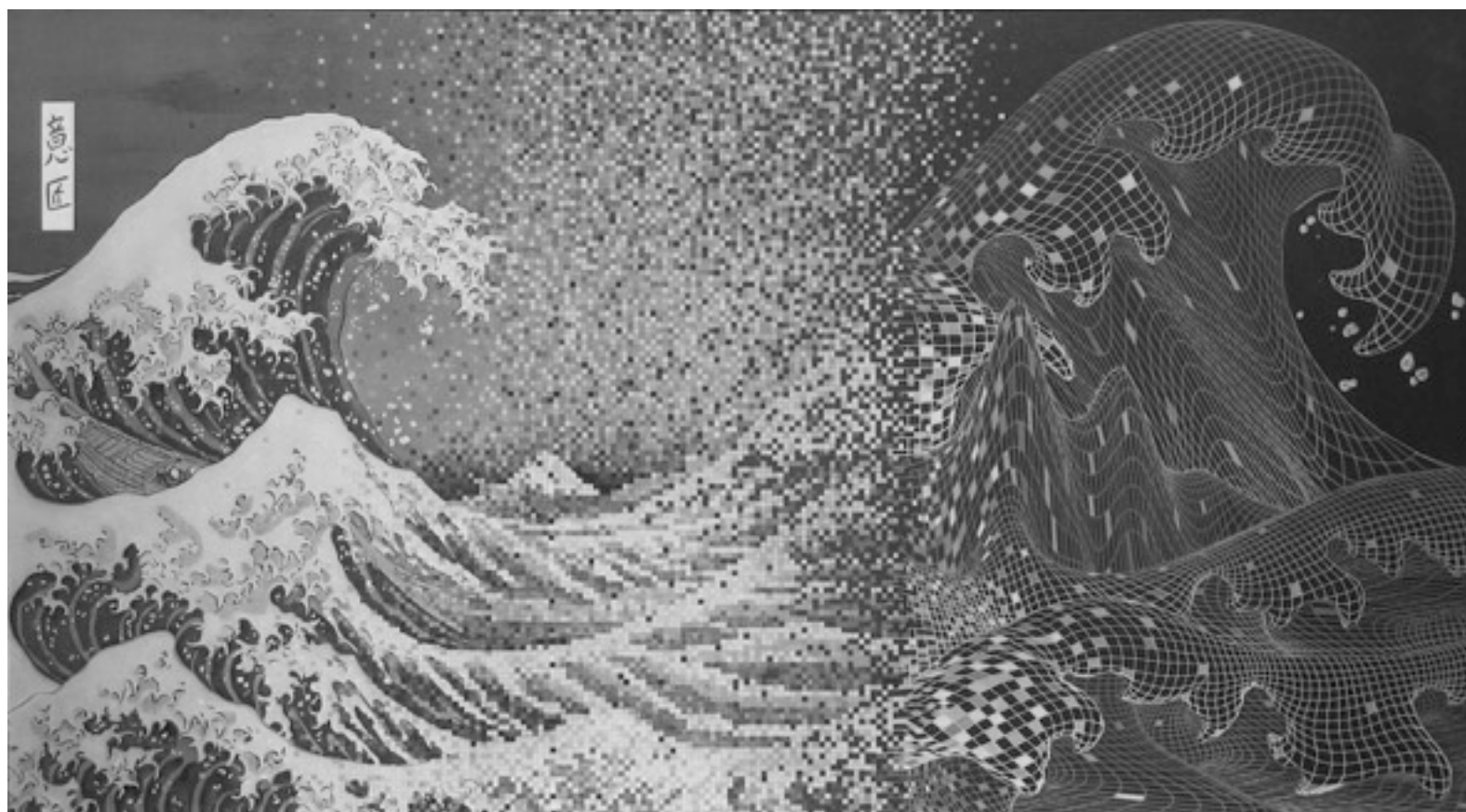
of interrogating these periods that guide us. With aion time we are considering a constant division of the present into both the past and the future, where every instance of present is forever being split into what has been and what is to come, explicitly guided by public space and linear equations of milestones and benchmarks. In chronos time however, we are experiencing a sense of time that Debra refers to as ‘affect time’, which is, in her words, ‘a sense that now matters and that becoming requires being watchful’. There is a temptation here to frame this as a timeless sense of time, only because considering the chronos in relation to aionion time is to consider a time void of the concrete markers on the social clock in front of the eyes of an averagerian witness that does not have room for the sort of phenomenological elasticity that chronos allows for.

There is much about chronos time that I would argue we already inhabit in the language of special education—we talk about just taking one day at a time in a manner that actually tries to void the concept of a day, for we are trying to describe a sense of not being guided by strict expectations of future progress or achieving particular milestones by a certain date, we are trying to facilitate a view of teaching in the moment, considering the child in the moment, talking to family in the moment without assessment criteria or deadlines. Debra again has some wise words on this notion, in ‘Teaching: Notes from the Front Line’ she says that ‘We can combine the needs of the future and present by very simply giving children an education that they love now, in which they thrive now, in which they learn to love knowledge and learning because it’s just really interesting and in which they become happy, articulate, resilient, agentive people with the capacity to embrace whatever future they eventually inhabit’.

So often I feel that we get trapped in the needs of the future to an extent that it voids the potentials of what we could be doing in the now with, say for example, behavioural needs—I have had many conversations with colleagues about understanding the challenging behaviours we are sometimes working with, of differing degrees and interpretation of challenge, that we discuss in a manner of wondering, ‘If we allow a child to exhibit this behaviour now without intervention, imagine what they will be doing when they are twenty, or thirty. We need to take decisive action now’. When we reflect upon what we are saying, we realise that we aren’t actually soothsayers who can see into the future—the fact that a child has not, say, followed the direction of a teacher on this particular occasion in no way indicates that they will walk into a future of antisocial uprising, which is what it can feel like if we allow a single behaviour to go unchecked. We talk about snowballs turning into avalanches, and like everything there are good reasons to address these needs just as there are also good reasons to bypass these needs given the individual circumstances at the time, but it is also worth reframing these considerations into chronos time and aion time—in a state of chronos I might consider the lived experience of what is happening now in a slowed down state of near suspend animation, interrogating the circumstances of now in a way that isn’t anxiously projecting a dystopian end to all challenging behaviours, but is rather negating past and future for the purpose of getting a fuller sense of the possibilities of the present. There is a challenge here to the very clinical manner in which we can sometimes be drawn to interpret behaviour, or academic progress, or any sort of goal at a given time—how much more might we come to understand the fuller landscape of the child and the classroom and the playground and the home and the society if we were to slow down the manner in which we come to realise that children are not hurtling towards a universal horizontal line they all need to jump over. The line doesn’t

exist, it isn't in front or behind us, Achilles' is not going to catch the turtle, the child is not the product of a years worth of Individual Education Plan goals.

In *Waiting for Godot*, Clov says to Hamm, 'Do you believe in the life to come?', to which Hamm replies, 'Mine was always that'. I wonder how much of the life to come we are imagining our goal setting is leading towards without considering all the living that is happening right now, inside and outside of the mobius strip of those goals. This is not a negation of goals, of course, but rather an interrogation of how much of a child's experience we hang on public aionion benchmarks that belie the humanity to be found in appreciating the very personal sense of time that we all experience privately, together. In the silence that permeates between the question that Debra poses to Neil in the anecdote at the start of this piece, there is space to consider a sense of chronos the next time you start to calculate how far a student should be progressing before the end of the year.



ABOUT THE AUTHOR

Craig works for Autism Spectrum Australia (Aspect) as Deputy Principal of the Aspect Hunter School in Newcastle, New South Wales. He conducts educational outreach programs across the Hunter Region and regional New South Wales, coordinates universal design and future schools programs, and implements Aspect Practice 'iPad Model Classes'. Craig was awarded the 2011 Elizabeth Hoyles Research Fellowship, was made an Apple Distinguished Educator in 2013, has featured on ABC Radio National as a national expert in autism education, and was selected for the '2015 Hot List' and '2016 Hot List' of inspiring teachers in Australia as published by The Educator magazine. Craig regularly presents nationally and internationally on autism pedagogy, recently running a workshop for the United Nations in Shanghai on future directions of autism education. He is the author of a number of best selling education textbooks, including the popular 'Minecraft In Your Classroom' and 'The iPad Model Classroom', as well as online learning courses such as 'Exploring your Emotions, Inside and Out' and 'Explore Everything with Pokemon Go', both of which were selected as top global iTunes U learning courses. He is currently working on developing an Autism Pedagogy Sandpit (#apSandpit) initiative to connect local school supports with global dialogues.



He lives in Hamilton with his wife, Teresa, and his daughter, Eliana.