



## Assessment: 8202.1 Critical Evaluation

### Introduction:

Our children are faced with challenges previously unimagined. They live in an age of constant connection and ubiquitous information. There is no off button for most.

Add to that the issues of climate change, pollution, plasticising the environment to the point we poop plastic, robot job-robbers, racism, gun violence and natural disasters - our children are constantly bombarded with 'future-fear'.

The purpose of this essay is to analyse and evaluate critical information regarding new, emerging and disruptive technologies, and their impact on contemporary learning environments. Disruptive technologies are those that change the status quo, that bring about change, innovation, paradigm shifts and new learning. This is positive, beneficial disruption.

Technology also has the power to disrupt in less positive ways. Disrupting children's lives in terms of their innocence, peace, security and mental well-being. A child's brain is not designed to cope with the challenges today's technology is bringing. The mechanisms for dealing with these 'adult' problems do not develop in their brains until they reach adulthood.

Thus, our children are living a life of heightened arousal, stress and anxiety. This is damaging to all aspects of their health and well-being. Neural circuits for dealing with stress are especially 'plastic' during the foetal and early childhood period - frequent or prolonged activation of stress hormonal systems can alter the functioning of neural systems including the parts of the brain essential for learning and memory. (1) We, as caring, ethical, culturally responsive teachers, have a duty of care to protect our young people.

As caregiver-teachers we can mitigate some of the stress and anxiety by being bringers of hope and focusing on the positive through the means of appreciative inquiry. "At its heart, Appreciative Inquiry (AI) is about the search for the best in people, their organisations, and the strengths-filled, opportunity-rich world around them. AI is not so much a shift in the methods and models of organisational change, but AI is a fundamental shift in the overall perspective taken throughout the entire change process to 'see' the wholeness of the human system and to "inquire" into that system's strengths, possibilities, and successes." (2)

Hope and appreciation are best shared through the medium of storytelling, and storytelling is as old as we are, so it is one of our most powerful connecting tools. The wonders of new, emerging, contemporary tools when combined with storytelling provide our children with a new digital literacy, new audiences and new and powerful ways to connect with those audiences.

Caregiver-teachers are not swayed by shiny gimmicks and passing pedagogical fancies. They understand it is not about the device, but about the learning. They also understand that even the learning is of secondary importance to the learner. As ERO advise in their whakatauki, "Ko te Tamaiti te Pūtake o te Kaupapa — The Child – the Heart of the Matter." (3)

## **A critical evaluation of the adoption and impact of new, emerging and disruptive technologies in teaching and learning practice in contemporary education through leadership and collaboration:**

Technology is disrupting our children's lives. What makes it harder for them and for us is that the age of 'development' is lowering. For example, we have chain stores selling bras and makeup for seven and eight-year-olds — "Supermarket giant Tesco has been heavily criticised for selling a padded plunge bra aimed at girls as young as seven." (4). Children are accessing domains that previously were exclusive to teenagers - the 13-year-old age barrier for having a social media account is no barrier at all, for example.

The teenage years are a time where young people find their identity and take active steps to separate themselves from parents. With the lowering of the age of development, this is now happening more and more for children as opposed to teenagers. At a time when their minds are most impressionable, our children are shutting out parents and opening themselves to an unmoderated world - one where there is no evident conscience in play - technology has no conscience.

Rachel Swan, in San Francisco Weekly's article "Spy Kids: We're Snooping on Students to Stop Them From Snooping on Each Other," explains the digital migratory patterns of teens:

- When Facebook became the province of old people showcasing their baby pictures or preening about their lasagna, teens had already fled to Instagram and Twitter. Then they bounced to a Twitter video application called Vine -- which allows users to express themselves through six-second looped videos. Then they moved to Snapchat, the ephemeral photo-sending app through which users send images that are automatically erased shortly after they're opened. Then they tried a text-messaging service called Kik. Some ultimately returned to Facebook, but adjusted their privacy settings. (5)

Rachel wrote this article in January 2014. Five years is a lifetime in this digital age and the behaviours she described for teens at that time are now the behaviours of pre-teens in my experience.

Children who are separating themselves from the care, nurture, guidance and protection of family in order to actively engage in the social media world are putting their safety and wellbeing at risk and increasing their levels of stress.

Stress is of increasing concern in our society. Our Board of Trustees has been focused on reducing and addressing the causes of stress in our school, and actively seeking to ameliorate stress wherever possible. Our Board has provided staff with access to counselling as a result. Clearly, stress is a challenge for adults, with adult brains, fully developed to cope with such stress. Children's minds are not developed or designed to cope with stress in the same way.

Believing children are resilient by nature may be a fantasy according to Darcia F Narvaez Ph.D., writing in Psychology Today. She concludes her piece by writing, "So let's stop aiming for resilient children, which is just an excuse for minimal care, and start thinking about thriving children. To thrive, children's needs must be met. In early life that means constant touch, no distress, breastfeeding as long as possible, multiple responsive adult caregivers, free play in nature, not to mention laughing and joyful social relations. Early life wires the brain and body for lifetime functioning. So if you want your children to flourish now and later, start with the above-named ancestral practices." (6)

The message is clear to me. Children are being exposed to increasingly stressful information and issues, at an increasingly younger age, at an increasing level of ubiquitousness. This leads to increasing levels of stress, and stress is harmful.

A 2005 paper addresses childhood stress. Titled, “Excessive Stress Disrupts the Architecture of the Developing Brain” by ‘The National Scientific Council on the Developing Child’ - a multidisciplinary, multi-university collaboration designed to bring the science of early childhood and early brain development to bear on public decision-making. (7)

The paper begins with the premise, “the future of any society depends on its ability to foster the healthy development of the next generation. Extensive research on the biology of stress now shows that healthy development can be derailed by excessive or prolonged activation of stress response systems in the body and the brain, with damaging effects on learning, behaviour, and health across the lifespan. Yet policies that affect young children generally do not address or even reflect an awareness of the degree to which very early exposure to stressful experiences and environments can affect the architecture of the brain, the body’s stress response systems, and a host of health outcomes later in life.” (7)

I would contend damaging effects on learning, behaviour and health across their lifespan is no small issue. The paper goes on to state, sustained activation of the stress response system “... leads to high, sustained levels of cortisol or corticotropin-releasing hormone (CRH) ... resulting in damage to the hippocampus ... the area of the brain critical to both learning and memory as well as to some types of stress response regulation.” (7)

The Education Act 1989 (8) governs our roles and responsibilities as teachers. It goes under the Latin heading, ‘In Loco Parentis’ - meaning Parent In Place. This means between 9 am and 3 pm (at the minimum) we are the mum and/or dad to each child in our care. The parent in place. Each child becomes our son or daughter. Each child becomes our own flesh and blood, and takes the place of primary importance in our life - for that is what it means to be a parent, and in our case, a caregiver-teacher.

One job of a teacher is to support learners to access the New Zealand Curriculum in all its richness. As teachers we are called on to be many things, in some ways, to be all things to all learners. In my long experience, I have reflectively simplified this to perhaps five key roles.

- Coach
- Co-constructor
- Critical Friend
- Change-catalyst
- Caregiver

In my opinion and experience, this latter role of caregiver is key. We are teachers and learners but before that, we are parents and caregivers. We are caregiver-teachers because we are passionate and because we want to make a difference in every child’s life, every day. Our passion is to teach effectively and affectively. We love and respect our children, helping them succeed at the work of school, building their self-esteem by treating each child as having worth and dignity, and enabling children to gain a first-hand appreciation of the meaning of morality by being treated in a moral way. (9)

Parents do not want their children to suffer harm, to be stressed or anxious. Neither do caregiver-teachers. As caregiver-teachers it is also our job to reflect on emerging and disruptive technologies, and their impact on contemporary learning environments.

## **Emerging Technologies - Power, Potential, Possibilities and Dangers:**

When I arrived at my current school five and a half years ago, there was virtually no technology in place. There were a few interactive whiteboards, ten iPads and 15 very old and outdated Windows desktop computers. Teachers had to pay for TELA laptops if they wanted them, so opted not to have them.

We began by identifying the needs and opportunities technology could address for our learners - both student and teacher. This generated a sense of purpose and empowerment, rather than a feeling of overwhelmingness. As a result, we transformed the teaching and learning environment for all learners. Children have:

- Produced marketing movies for our school
- Multi-media projects
- Composed music
- Created digital art and artefacts
- Created puppet shows
- Constructed web sites
- CAD designed digital artefacts and 3-D printed them
- Created online games
- Populated their own YouTube Channels
- Coded games, activities and artefacts
- Made Makey-Makeys
- Built a Mindstorm Robot to solve a Rubik Cube
- Live-streamed events
- Created teaching videos
- and much, much more

We celebrate and build upon these achievements on a daily basis at our school. We take joy from this and from the joy this brings our learners - students and teachers.

At the same time, we are aware of the challenges that such access brings. As caregiver-teachers we must seek to do all we can to address the stress these challenges bring to our learners. Digital citizenship is an increasingly frequent focus in our curriculum. We teach children the importance of safe practices online. We raise awareness, provide guidance and do all we can to be the proxy for their prefrontal cortex and serve as their digital neighbourhood support system. And yet, this is not enough.

Some years ago I took over the principalship of a school where children were expected to be autonomous leaders of their learning and life. There was a deep stream completely behind a large flax outcrop. Five-year-olds were wandering down to investigate unsupervised. The dangers should have been obvious, equally the duty of care to ensure no child drowned, as one nearly did.

The internet was made available unfettered and unfiltered. Children were expected to make good choices of their own volition. One end result was middle school children accessing extreme porn in a secluded corner of a room during interval. Some six-year-olds also observed this porn and a week later were engaging in oral sex in the toilets - forcing one child to participate against his will.

There are many more examples that could be shared. My point is children's brains are not designed or developed to cope with some of the challenges and much of the material that can be found online. Sex sites invest millions in 'hooking' techniques.

PORN KILLS LOVE™ ©Fight the New Drug, Inc. 2019, All rights Reserved. Fight the New Drug, Inc. is a US 501(c)(3) public charity, EIN 26-3550143. On their website, they share an article, written May 31 2019, “What’s The Average Age Of A Kid’s First Porn Exposure?” (10)

That article states, “Young people are being exposed to porn much earlier, but that porn is often much more extreme than it ever used to be. That can be worrying because studies have shown that kids who have been exposed to hardcore images and videos can be more likely to want to repeat what they’ve seen without exactly understanding the meaning or the impact of what they’ve seen. That’s led to scenarios in which younger and younger girls and boys are being pressured into sexual acts by their peers and learning that sex is about fear, violence, and domination—not love, intimacy, and connection.

At the same time, limiting access to porn is much more difficult than it’s ever been. Even if the home computer and family mobile devices are safeguarded, there’s always a friend with a smartphone or unchecked internet access, and not even the most diligent parents can be 24/7 watchdogs. With the way things are right now, early exposure to porn is almost impossible to control completely.” (10)

As caregiver-teachers we must play our part in protecting our children. N4L’s ‘Fortigate’ (11) filtering is a tool that most schools now employ to aid in providing such protection. However, technology never stands still and has no conscience. Cell phone companies are looking for new ways to make money and lock in customers. Ever cheaper data plans offering ever larger data access bundles are the norm. It is quite common for children at my school to have unlimited data plans on their mobile devices. As such, they have unfettered and unfiltered access to the internet.

A 2008 article by Ben Johnson in Edutopia talks about “The Barbed Wire Model of Classroom Management.” (12) Barbed wire was used as a barrier to keep some of us in and others of us out. Barbed wire led to razor wire, and razor wire to electrified wire. Those employing such tools soon learn that those who are determined enough will always find a way through - under, over, around, but always through.

As caregiver-teachers we can only do our best to educate, advise and protect as best we can. We must not lose heart nor admit defeat. We can take heart that we can be as determined as those who would break through, as creative in our efforts as they are in theirs.

### **Addressing digital fluency and the implications for teaching and learning practice in contemporary education through culturally responsive leadership and collaboration through applying Appreciative Inquiry:**

As Dennis Littky (2005) states, “We have two mantras: 1) to always do what’s best for kids, and, 2) to teach one student at a time. The idea is that schooling ... is really about helping kids. I would like for every kid to have his or her own individual plan because every kid is so different. At The Met, we help kids find their interests and passions and then figure out how to teach them to read, write, and think like scientists and mathematicians through relevant hands-on learning.” (13)

“The task of (school) leadership is to create an alignment of strengths in ways that make the (school’s) weaknesses irrelevant.” Peter Drucker (14)

Most schools function on an unwritten rule - to fix what’s wrong and let the strengths take care of themselves. If we change our focus from problems to positives, from perplexities to possibilities, we reduce stress and remove the feeling of overwhelmingness. For our children’s sake, for all our

sakes, this focus on the positive is so important. We can achieve this through the principles of Appreciative Inquiry. (2)

From this standpoint, children, their learning and their needs, are not problems to be solved, they are rich answers to questions we have not framed. One of the first of those questions is, how can we positively engage the powerful, positive potential of us all toward transforming our learning, our lives and our school?

As caregiver-teachers we are not ignoring the problems - we are approaching them from the other side. At its heart an appreciative inquiry approach is about systematically discovering the best - in our people, our school, our situation, and our world around us. This generates hope instead of feelings of despair or disempowerment. We all depend on hope. Barack Obama understood this and used this one word as a cornerstone of his 2008 election campaign. (15)

Scott Barry Kaufman in Psychology Today in December 2011, writes, “Cutting-edge science shows that hope, at least as defined by psychologists, matters a lot. Hope is not a new concept in psychology. In 1991, the eminent positive psychologist Charles R. Snyder and his colleagues came up with Hope Theory. According to their theory, hope consists of agency and pathways. The person who has hope has the will and determination that goals will be achieved, and a set of different strategies at their disposal to reach their goals. Put simply: hope involves the will to get there, and different ways to get there.” (16)

Kaufman goes on to say, “Hope leads to learning goals, which are conducive to growth and improvement. People with learning goals are actively engaged in their learning, constantly planning strategies to meet their goals, and monitoring their progress to stay on track. A bulk of research shows that learning goals are positively related to success across a wide swatch of human life—from academic achievement to sports to arts to science to business.” (16)

There is a popular acronym for HOPE attributed to Lou Holtz, then the head football coach of the University of South Carolina, in September 1999, “Have Only Positive Expectations.” (17) Beginning from a positive position, from positive expectations, gives us a solid base from which to launch and move forward.

As caregiver-teachers we bring hope to our children. Appreciative Inquiry facilitates the achievement of this. Appreciative Inquiry is a narrative-based process of positive change. (18) We become a community of story-tellers - sharing good news at every opportunity.

### **Developing digital fluency in contemporary education through culturally responsive leadership and collaboration through Original Practice, in particular, story-telling:**

And so we come full circle. Original practice is an approach to learning as old as humans. A cornerstone of original practice is story-telling, again as old as mankind. Modern pedagogy, modern technology and modern approaches to teaching and learning allow us to take story-telling to a whole new level, to give our children a new voice, a new literacy and a new audience.

Story is the most human thing in existence. It's how we assemble the random data of daily life into memories, how we communicate lessons, how we bond. No matter where we push our technology, story will be the link that binds us to it, and we will always need a method to take these ideas in our minds and turn them into stories. (19)

Fritz Heider, in “An Experimental Study of Apparent Behaviour” discovered humans will assign meaning and patterns to virtually anything. (20) Our perception, in its most basic form, is wired to

find story in everything we see, and our memories do the same work after the fact. So our brain is a storytelling machine.

According to Ed Young, writing in “The Atlantic” in 2017, “Storytelling is a universal human trait. It emerges spontaneously in childhood, and exists in all cultures so far studied.” (21) It is ancient.

Storytelling is as old as civilisation and as fresh as the new morning. Words, both written and spoken, can bring people together. They can stimulate the imagination. They can open a child's eyes to worlds of wonder and to the hope of humanity. One of the greatest gifts we can share with our children is the gift of stories and storytelling.

### **Contemporary Educational Practice and Digital Fluency:**

When thinking of contemporary teaching practice many will focus on one to one devices, apps for every purpose, and the 4 As of learning - Anytime, Anywhere, Anything, Anyone.

Contemporary teaching practice is not about devices or access, it is about methodology. Real-world learning can be via VR. Mentoring can be via Robots and/or AI. Hands-on can be via VR, the spatial web - web 3.0, the holographic web that is the next www iteration.

We could bundle all this together and call it cybergogy. (22) However, whether it is andragogy, heutagogy or cybergogy, the principals, the methodology and the over-arching picture remain the same - it is just the vehicle that changes as we move into the future.

Contemporary educational practice requires both a new form of leadership and a new form of teaching. Leadership that draws on current best leadership practice and research as well as drawing on a range of foresight frameworks and tools to help make sense of what's happening and to navigate the future. Teaching that moves from digitising what we know and do, to digitalising why we know and how we know.

In 2011 and 2012 I worked with 70 Canterbury schools under the auspices of Canterbury University in the field of ‘Digital Innovation and Development, specifically exploring ways e-Learning can supplement traditional ways of teaching’. In that time I found many schools conflated being a digital native with being a confident consumer of digital artefacts

Digital natives have moved far beyond being able to connect and consume with ease, they are fluent in ‘digitalese’. Kevin Henry, writing for Columbia College in 2009, addressing “the interplay of technology and learning and its complex and intertwined histories,” identified “... One possible solution to this concern is the creation of a new language - a ‘digitalese’- which would promote a more expansive use of technology as an exploratory medium rather than a singular application in this networked world of malleable information.” (23)

From my own background as an adviser in E-Learning and M-Learning, I would define digitally fluent learners as ones who have mastered the my Seven Cs process model.

- Consume
- Consider
- Curate
- Connect
- Collaborate
- Create
- Communicate

This is my imperfect definition, based on 31 years of experience in the digital learning field. During that time I was confirmed as an Apple Distinguished Educator in 2009, was an E-Learning Advisor with UC Education Plus for two years, was secretary of ACES - the quaintly named Auckland Computers in Education Society, was a TUANZ presenter for a number of years and presented at numerous ICT conferences around the country for a number of years.

There are links that can be made with Bloom's Revised Taxonomy (24) that may help clarify the seven Cs thinking.

Consume	Relates well to Remember - there is little thinking or processing required
Consider	Relates well to Understand - there is thinking and interpreting involved
Curate	Relates well to Apply - having considered, information is systematically organised
Connect	Relates to Analyse - analysing contacts, resource people to connect and work with
Collaborate	Relates less well to Evaluate - as collaborators we evaluate ideas and information but the key is working together
Create	This is the pinnacle for Bloom and also for digital fluency. Generating new knowledge, new understanding and new artefacts representing this.

Communicate does not have a correlation in Bloom's revised taxonomy. Communication is about sharing the learning with an audience. As a digitally fluent communicator, learners share their creations via web sites, YouTube channels, blogs, Instagram, Twitter and a plethora of similar platforms and avenues.

Fluency in any language implies you think in that language — second language speakers think in their first language, then translate into their second.

If I am fluent I process in that language and then communicate in it confidently — it is much more than competence.

Our goal is to grow digitally fluent learners who think computationally - in **if... then ...** terms). Who seek and grasp opportunities to communicate via image, design, music and sound, incorporating emotion, clarity and insight. Storytelling using multi-media tools is one way of growing this fluency. From my experience, I believe it is vital teachers do not defer to their students as superior digital natives. Instead, they should see their students as young, impressionable minds, confident in the manipulation of technology but needing guidance to be discerning users and competent creators.

## **Conclusion:**

A life of heightened arousal, stress and anxiety is damaging to all aspects of children's health and well-being. Caregiver-teachers can mitigate some of the stress and anxiety by communicating hope and focusing on the positive through the means of appreciative inquiry, and via the medium of storytelling.

Dr. Jean Twenge - prominent researcher and professor of psychology - refers to the ultra-connected generation as "iGen". (23) In her research, she notes changes in adolescent behaviour right around the year 2012. This specific year overlaps with when smartphone usage in America surpassed 50% of the population. All children born right before or after this year are now growing up not knowing a world without the internet, the iPhone, or Instagram. In her words, "There is compelling evidence that the devices we've placed in young people's hands are having profound effects on their lives - and making them seriously unhappy." (25)

For these reasons, it's critical that schools implement new strategies to adapt to this new generation and their unique set of struggles.

As caregiver-teachers we see the potential and possibilities new and emerging technology offer our learners - students and teachers. We also see the dangers that accompany these technologies and always-on access. We have to tread a narrow, ever-shifting path, fraught with challenges and rich with opportunities. It is an exciting time to be a learner and a caregiver-teacher.

Of all the creatures of earth, only human beings can change their pattern. Man alone is the architect of his destiny." - William James (26)

## Bibliography:

- (1) Garity, Anne (2009). Developmental Repair: A Training Manual. An Intensive Treatment Model for Working with Young Children Who Have Experienced Complex Trauma and Present with Aggressive and Disruptive Symptoms. Washburn Center for Children. <http://www.washburn.org/pdf/WCCDevRepair60c.pdf>
- Lieberman, A. & Van Horn, P. (2008). Psychotherapy with infants
- (2) Excerpt from: Stavros, Jacqueline, Godwin, Lindsey, & Cooperrider, David. (2015). Appreciative Inquiry: Organization Development and the Strengths Revolution. In Practicing Organization Development: A guide to leading change and transformation (4th Edition), William Rothwell, Roland Sullivan, and Jacqueline Stavros (Eds). Wiley
- (3) Foreword. (2019). Education Review Office. Retrieved 3 June 2019, from <https://ero.govt.nz/publications/working-with-national-standards-good-practice/foreword/>
- (4) Cleland, G. (2008). Tesco accused over padded bra for 7-year-olds. Telegraph.co.uk. Retrieved 3 June 2019, from <https://www.telegraph.co.uk/news/uknews/1895575/Tesco-accused-over-padded-bra-for-7-year-olds.html>
- (5) The Digital Lives of Teens: The School is the Neighborhood. (2019). Edutopia. Retrieved 25 May 2019, from <https://www.edutopia.org/blog/digital-teens-school-is-neighborhood-matt-levinson>
- Joseph, C., Lamb, J., Schiewe, J., Kane, P., & Curiel, J. (2019). Spy Kids: We're Snooping on Students to Stop Them From Snooping on Each Other. SF Weekly. Retrieved 25 May 2019, from <https://archives.sfweekly.com/sanfrancisco/spy-kids-were-snooping-on-students-to-stop-them-from-snooping-on-each-other/Content?oid=2828696>
- (6) Believing "children are resilient" may be a fantasy . (2019). Psychology Today. Retrieved 3 June 2019, from <https://www.psychologytoday.com/us/blog/moral-landscapes/201106/believing-children-are-resilient-may-be-fantasy>
- (7) National Scientific Council on the Developing Child. (2005/2014). Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper 3. Updated Edition. <http://www.developingchild.harvard.edu>  
© 2005, 2009, 2014, National Scientific Council on the Developing Child, Center on the Developing Child at Harvard University
- (8) Education Act 1989 No 80 (as at 14 May 2019), Public Act Contents – New Zealand Legislation . (2019). Legislation.govt.nz. Retrieved 3 June 2019, from <http://www.legislation.govt.nz/act/public/1989/0080/latest/DLM175959.html>
- (9) Teacher as Caregiver, Model, Mentor - SUNY Cortland. (2019). [Www2.cortland.edu](http://www2.cortland.edu). Retrieved 3 June 2019, from <https://www2.cortland.edu/centers/character/wheel/teacher-as-caregiver.dot>
- (10) What's the Average Age of a Kid's First Porn Exposure?. (2019). Fight the New Drug. Retrieved 3 June 2019, from <https://fightthenewdrug.org/real-average-age-of-first-exposure/>
- (11) MNU FAQs | N4L. Future Ready, World Ready. (2019). N4l.co.nz. Retrieved 3 June 2019, from <https://www.n4l.co.nz/mnu-faqs/>

- (12) The Barbed Wire Model of Classroom Management. (2019). Edutopia. Retrieved 3 June 2019, from <https://www.edutopia.org/classroom-management-barbed-wire-model>
- (13) The Big Picture: Education Is Everyone's Business. Dennis Littky. 2005. Alexandria. Association for Supervision & Curriculum Development  
Littky, Dennis - Tom Peters. (2019). Tom Peters. Retrieved 3 June 2019, from <https://tompeters.com/cool-friends/littky-dennis/>
- (14) Peter Drucker Quote - Strengths and Leadership. (2015). Coaching Leaders. Retrieved 3 June 2019, from <https://coachingleaders.co.uk/peter-drucker-on-strengths-and-leadership/>
- (15) Barack Obama \. (2019). En.wikipedia.org. Retrieved 26 May 2019, from [https://en.wikipedia.org/wiki/Barack\\_Obama\\_%22Hope%22\\_poster](https://en.wikipedia.org/wiki/Barack_Obama_%22Hope%22_poster)
- (16) The Will and Ways of Hope. (2019). Psychology Today. Retrieved 26 May 2019, from <https://www.psychologytoday.com/intl/blog/beautiful-minds/201112/the-will-and-ways-hope>
- (17) 18 September 1999, The State (Columbia, SC), "Holtz gives USC fans mouthful for lunch" by Bill McDonald, pg. B3, col. 1
- (18) David Cooperrider and Diana Whitney, Appreciative Inquiry: A Positive Revolution in Change (San Francisco: Berrett-Koehler, 2005), 15.
- (19) The Beginner's Guide to VR Scriptwriting & Storytelling - VRScout. (2017). VRScout. Retrieved 4 June 2019, from <https://vrscout.com/news/vr-scriptwriting-beginners-guide-writing-unframed/>
- (20) F. Heider and M. Simmel. "An experimental study of apparent behaviour". American Journal of Psychology, 13, 1944.
- (21) Yong, E. (2017). The Desirability of Storytellers. The Atlantic. Retrieved 3 June 2019, from <https://www.theatlantic.com/science/archive/2017/12/the-origins-of-storytelling/547502/>
- (22) 5th World Conference on Educational Sciences - WCES 2013. Using Cybergogy and Andragogy Paradigms in Lifelong Learning. Mihaela Muresan. Procedia - Social and Behavioral Sciences 116 ( 2014 ) 4722 – 4726
- (23) Digital or 'Digital-ese'? A New Foundational Language For An Increasingly Complex World. Kevin Henry, IDSA, Columbia College Chicago
- (24) A taxonomy for learning, teaching, and assessing : a revision of Bloom's taxonomy of educational objectives. Anderson, Lorin W.; Krathwohl, David R.; Bloom, Benjamin S. (Benjamin Samuel), 1913-1999; c2001.
- (25) iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy--and Completely Unprepared for Adulthood--and What That Means for the Rest of Us. Twenge, Dr Jean. Atria Books; 2nd Print edition (August 22, 2017)
- (26) Quotes by William James . (2019). CrazyaboutQuotes.com. Retrieved 3 June 2019, from <https://www.crazyaboutquotes.com/quotes-by-william-james.html#sthash.Am2bEQff.dpbs>