# Ending One Hundred Years of Solitude: Stories from the research

*By Dr Carol A. Gordon*

In the mid-1960's Gabriel Garcia Marquez was a little known writer outside his native Colombia, having never sold more than 700 copies of any one of his books. Everything changed when, at the age of 39, he experienced an inspiration while driving his family through Mexico. In a split second he understood how he could tell the story of his imaginary village, Macondo. He would use the storytelling style of his grandmother who told mystical stories filled with local superstitions with a face of stone, as if she was talking about the weather. He would color his stories with his grandfather's passion for social justice in a genre that came to be known as 'magical realism.' Within 18 months he sent a hefty tome of 1,300 pages to the publishers. The result was *Cien anos de soledad – One Hundred Years of Solitude* – which became a Nobel-prize winning novel. In Marquez's story we find a metaphor for the communication revolution that is changing our world.

The story of *One Hundred Years of Solitude* takes place in the isolated town of Macondo, inhabited by its founders, the Buendia family. For years the town had no contact with the outside world except for gypsies who occasionally visited, peddling technologies such as ice and telescopes. The patriarch of the family, José Arcadio Buendía, is impulsive and inquisitive. He is a leader who, like Macondo itself, is deeply solitary and isolated, alienated from other men by his obsessive investigations into mysterious matters. His sons represent the new order of things. The older son inherits his father's physical strength and impetuousness. The younger son inherits his intense, enigmatic focus. As the power shifts from father to sons, Macondo loses its innocent, solitary state as it establishes contact with other towns in the region. Civil wars begin, bringing violence and death as peaceful Macondo changes from an idyllic, magical, and sheltered place to a town irrevocably connected to the outside world.

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Like Macondo, our global village has been irrevocably transformed, but hopefully for the better. Digitised communication has stripped away hundreds of years of 'solitude'. Virtual space has given rise to a new generation that is not unlike the intense, impetuous and enigmatic sons of Buendia. This new generation lives in a borderless cyberspace where they invent and re-invent a pop culture with Web 2.0 tools: emails, blogs, and wikis, a facebook.com communal of adolescents, interactive video games, and a virtual life filled with virtual real estate that offers them opportunities to act out their creative musings. Every morning digital youth is exiled from their virtual homeland to go to a school very much like the one you attended, filled with artifacts such as chalkboards, paper, and books. Needless to say, they are reluctant refugees.

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The die is cast. We are in the midst of a cultural revolution that represents much more than a shift from pencil and paper to computer. A new communication medium is changing what we say and how we say it. In the virtual community of social networking a new culture is emerging, unlike the old order of the struggling writer. Anyone can become an author and, with relative ease, reach an audience of millions in seconds. National cultures fade into the background as the bright lights of a seductive and flashy pop culture brings people who have never heard each other's voices together to form more friendships than could ever be made in a Macondian lifetime. New media genres are emerging in a re-mix culture where pop meets classical. The youth that populates virtual communities is inventing new genres to tell their stories. In this participatory culture young people are not passive by-standers. Instead they are assuming authorship and starring roles as they take charge of the conversation. They are finding new outlets for their creativity. Cyberspace is the new classroom, digital literacy is the language of instruction, and personal interest is the new curriculum. Unlike the sons of Macondo, the communication revolution is promoting understanding rather than civil strife and creativity rather than conflict.

Like Gabriel Garcia Marquez, we can gain insight and inspiration from the storytellers in our professional family. The stories are found in the research of library and information science and education. These stories record exploration and discovery that helps us understand the culture of the new learner and the traditional teacher in order to find answers to the burning question, 'What works best in my practice?'.

## The culture of the new learner

Digitisation of the word is creating a parallel world that is not only changing the way we express our values and our beliefs; it is changing our values and beliefs. As we shift from paper to screen it is clear that the medium is the message (McLuhan, 2003) as common socio-technical practices go against the grain of traditional values. For a net generation that tolerates internet filters and blocked web sites censorship is a way of life and violations of intellectual freedom are inconveniences. Copyright laws are irritating rules to a generation that has downloaded music illegally for as long as they can remember. Nor are privacy and confidentiality core values for a generation that enthusiastically publishes personal information on the web. Digital technologies will not only continue to transform the culture of the learner, they deeply affect teachers and teacher-librarians. Schools not only use virtual environments; they are becoming virtual communities that necessitate a participatory culture. However, stories of collaboration in schools do not always have happy endings.

## The culture of traditional teaching

Collaboration for teachers is a departure from existing norms. Research studies on the culture of schools and teaching consistently indicate that '. . . the autonomy of the teacher is grounded in norms of privacy and non-interference' (Inger, 1993). Throughout the development of the instructional role of the school library there has been a persistent disconnect with what is happening in classrooms. This gap is driven by a 20th century culture of classroom teaching that is teacher- and textbook-centered while the school library has moved on to a 21st century-friendly pedagogy that is learner-centred, information-focused, and inquiry-based. However, classroom teachers are the gatekeepers who monitor the school librarian's access to students. It is critical that school librarians understand the culture of teaching to better understand how to connect the classroom to the school library.

Lortie (1975) conducted the first sociological study of teaching in the United States and his findings are still relevant today. He interviewed a stratified sample of primary and secondary school teachers in the greater Boston, Massachusetts, area and collected questionnaires from almost 6000 teachers in Dade County, Florida. The study concluded that, "The cellular organisation of schools means that teachers struggle with their own problems and anxieties privately, spending most of their time physically apart from their colleagues" (Fullan, 1991, p. 119). They focus on classroom, not school. They care more about having preparation time, more teaching time, and time for counselling students and conferencing with parents. They view these tasks as individualistic, to be performed alone. The immediate imperatives that drive teachers' interaction with students include maintaining discipline and assessing student work. They strive to reach students and feel they are expected to perceive and act on the needs of individual learners. Teachers see themselves as actors: they must overcome distractions and mobilise the attention of initially uninvolved student audiences. They know that without full attention learning is not likely to take place. They are onstage and feel the pressures of performance every day (Lortie, 1975).

Teachers are consoled in their isolation when they talk about the 'good day'. A good day is when they work hard and succeed in stimulating students. On a good day they feel they finish their work plans and see results. They describe students' contributions on a good day as responding and cooperating, behaving themselves, demonstrating positive feelings, showing interest and giving full attention, wanting to learn, being in a good mood, being enthusiastic, working hard, obeying rules and enjoying classes. Teachers believe a good day happens only when both students and teacher are in the appropriate frame of mind. Sometimes mood depends on health or environmental changes, the time of year, or the weather. Some say mood originates with the interaction between teacher and students when they positively reinforce each other (Lortie, 1975). Teachers also talk about the psychic rewards of teaching. They want to go beyond the curriculum to add something personal to their responsibilities. These extras include:

1. Moral aspects of teaching. Desirable moral outcomes emphasise students' compliance and obedience.
2. The connecting function of the teacher who instills love of school or a particular subject. Connecting compliance with classroom norms to future citizenship authenticates the teacher's control efforts. Teachers see this compliance as preparation for citizenship. They see school as doing work the family failed to do and promoting middle class values for children from disadvantaged socio-economic backgrounds. Connecting children to school and learning is not strictly cognitive in nature. They find the prospect of inducing positive attitudes among students toward school or learning as exciting. They want to make students think on their own and be independent but they think it takes a teacher to stimulate intellectual curiosity and interest in school.
3. The theme of inclusiveness in teachers' views emerges from their belief that they must reach and teach all students in their charge. They have strong convictions about equity and the benefits of schooling. Their greatest satisfaction is derived from success with a single student (Lortie, 1975). Teachers describe an outstanding teacher in terms of learning outcomes, or instructional results, as well as interpersonal transactions. They value the states that teachers realise with their students: affection, respect, hard work. Teachers judge their peers by how they handle their relationships with students. Although teachers like boundaries they see displays, assemblies, science fairs, exhibitions, field trips, and panel presentations as ways to dramatise teachers' achievements through competition of student work (Lortie, 1975). Teachers see their work as up and down: the flow of accomplishments and rewards as erratic. Positive events are linked to two sets of people: teachers and students. When they seek help, it is usually from another classroom teacher. All other persons, without exception, are connected with undesirable occurrences. They tend to make negative comments about all other school personnel, in fact, about anyone who intrudes on classroom events. Teachers attach great meaning to the boundaries that separate their classroom from the rest of the school and the community. Walls are perceived as beneficial because they enhance and protect the course of instruction (Lortie, 1975).

How do teachers deal with change? Teachers do not see themselves as change agents. When they are given opportunities for more time for classroom-related activities they select preparation, teaching and counseling time (Lortie, 1975). Change attempts fail more often than they succeed in schools because change is not considered a process and is not personalised by teachers (Hall & Hord, 1987). Teachers assess the value of change by asking the following questions:

- Does the change potentially address a student need?
- How clear is the change in terms of what the teacher will have to do?
- How will it affect the teacher personally in terms of time, energy, and new skill, sense of excitement and competence, and interference with existing priorities?
- How rewarding will the experience be in terms of interaction with peers and others?

While all of these findings may not apply to teachers you know, they do indicate trends and patterns in teacher behaviour. These finding are important because school libraries are still in various stages of innovation. Rarely are they entirely institutionalised and integrated to the same degree as the classroom and they have yet to reach their potential in teaching and learning. To do so would require changing the culture of teaching and the culture of schooling.

## What works? Spinning a tale of a common technical culture

> *Educational change depends on what teachers do and think – it's as simple and as complex as that. It would all be so easy if we could legislate changes in thinking* (Sarason, 1971, p. 193).

Since we can't legislate, we educate. "Teacher training does not equip teachers for the realities of the classroom" (Fullan, 1991, p. 119) nor does it train teachers to collaborate with teacher-librarians. "Partly because of the physical isolation, and partly because of norms of not sharing, observing, and discussing each other's work, teachers do not develop a common technical culture" (Fullan, 1991, p. 119). A technical culture exists in the workplace when there is consensus about the goals, tools, and methods that are integrated into every day work. In such a culture classroom teachers and specialists, such as teacher-librarians and technologists, share their expertise in a spirit of learning from each other in order to improve the quality of their teaching.

The need for a common technical culture of teaching in a highly digitised society presents an opportunity for teacher-librarians to be leaders in the creation of a culture that serves the needs of 21st century learners. What would such a technical culture look like? How

would it alter the culture of teaching as we know it so that teachers would be willing to open their classroom doors? A 21st century culture would be learner-centered, building on the engagement, curiosity, and interests of young people. Constructivist (learning from constructing knowledge) and constructionist (learning from designing and building) teaching learners to find their own meaning from information based on connecting new knowledge to prior knowledge and experience. Learning is social and holistic: it involves not only the cognitive, but affective and behavioral domains. This approach supports teachers' concern for the success of the individual student and for the importance of reaching all students and accommodating their learning. However, it puts the students on centre stage to perform and the teacher in the role of drama coach.

The framework for this technical culture would be the Information Search Process, a research-based model that predicts thoughts, feelings and actions of learners as they interact with information to build new knowledge or extend existing knowledge. Through six predictable stages the educator can offer interventions that support the steady progression of the learner from Task Initiation to Presentation. The ISP tool enables teachers to experience the psychic rewards of teaching when their students 'get it'. It ensures that students will be helped through the process of information processing so that they can successfully complete their learning tasks, working hard and building interest and enthusiasm and the 'good mood' that teachers identify as critical to the 'good day'. The building blocks of a common technical culture would be Guided Inquiry.

> Guided Inquiry is carefully planned, closely supervised targeted interventions of an instructional team of school librarians and teachers to guide students through curriculum based inquiry units that build deep knowledge and deep understanding of a curriculum topic, and gradually lead towards independent learning. It is grounded in a constructivist approach to learning, based on the Information Search Process developed by Professor Emerita Dr Carol Kuhlthau's extensive research over a twenty year period. (CISSL, 2014)

Interventions, or learning activities that support students in the information process, are designed to address anticipated and realised problems in the various ISP stages. This approach guarantees that the learner will not be abandoned and with help, can become self-directed learners. Guided Inquiry addresses the teacher's concept of the 'good day' whereby there are interpersonal transactions between teacher and learner and student and teacher positively reinforce each other. Inquiry learning satisfies teacher's need to stimulate students and help them to think on their own. It offers teachers opportunities to instill a love for their subject by helping their students discover the essential questions of an academic discipline and the ways of knowing, or the methods of inquiry that are unique to each discipline. A common technical culture supports students as they step out of their artificial roles as students to think like historians, mathematicians, scientists, writers, and artists and use the tools of the experts to solve problems.

> Do we want to evaluate student problem-posing and problem-solving in mathematics' experimental research in science? Speaking, listening, and facilitating a discussion? Doing document-based historical inquiry thoroughly revising a piece of imaginative writing until it 'works' for the reader? Then let our assessment be built out of such exemplary intellectual challenges. (Wiggins, 1990)

This means going beyond a generic definition of information literacy to probe more deeply into the inquiry methods of historians, scientists, mathematicians, writers, and artists. It is only in the context of academic disciplines and course content that teachers can challenge their students to be critical thinkers. Instead of relying solely on secondary sources, such as an encyclopedia to find out about birds, young children use the tools and information sources of the expert. The learning tasks are the formative assessments as students receive continuous feedback about their progress. This methodology offers teachers the chance to stimulate curiosity and to create the 'good day' in terms of learning outcomes. Assessment is re-defined for teachers who are relieved of the burden of being the sole assessors of student work as their students engage in peer and self-assessment. Learning outcomes are summatively assessed through exhibitions, fairs, and displays that teachers like to engage with as they

publicise their students' achievements. The focus, however, turns away from teacher competition for the best student work to student performance as measured by criteria for excellence. Learners go beyond remembering and understanding knowledge to applying, analysing, evaluating knowledge and creating new products that demonstrate their knowledge. Teachers meet their need to communicate their passion for their subject area to their students as they challenge them to work hard.

## The moral of the story

There are two ways we can define the evidence that can inform practice:

1. the conscientious, explicit and judicious use of current best research findings in making decisions about instruction;
2. the gathering of evidence generated in the performance of day-to-day instruction to demonstrate the tangible impacts and outcomes of sound decision making.

The pedagogy of a 21st century technical culture that offers more independence to learners also provides the support and interventions they need to succeed. When Web 2.0 tools are integrated with this teaching approach schooling moves into the digital arena where students want to be. Learning in school takes on an authenticity when it is immersed in the familiar web culture where students are learning in a constructivist model. How will teachers feel about this change? When we apply teachers' criteria for assessing change, this common technical culture works. Does the change address a student need? Yes, it addresses the need to work, as well as play, in a virtual environment that has become the country of their culture. How will it affect the teacher? This common technical culture will break down the isolation of teaching, models of team building emerge that will be both rewarding and productive for teachers as they interact with the school librarian, and other teachers, as peers. In this common technical culture the school librarian gains credibility as a teacher.

In 1597 Sir Francis Bacon wrote, "For also knowledge itself is power". Four hundred years later our society has moved from the Information Age to the Knowledge Age in just 10 years. The culture of schooling, however, is not tooled to make the shift from information-to-knowledge-centred learning.

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centred learning. Those tools reside in a common technical culture that acknowledges the world of our digital learners and these tools are at your fingertips. Teacher-librarians are equipped for 21st century teaching, but like our students, we too need to use the raw material of information to construct our own meaning. Each of us has our own unique answers to the challenges of 21st century education. Part of that challenge is to build our foundational knowledge so that we can do something with it: break it down to try to understand its parts, and put it back together in a new and different synthesis in small acts of creation. What teacher-librarians learn from research stories in the fields of libraries, information, and education empowers them to go forward to create exciting learning environments that motivate their students and teachers to be creative and inventive learners.

## References

Bacon, F. (1597; 2010). *Meditations Sacrae and Human Philosophy*, Kessinger Publishing.

Center for International Scholarship in School Libraries (CISSL) (2014) Rutgers School of Communication and Information: New Brunswick, NJ. Accessed 19 July 2014 at: http://cissl.rutgers.edu/joomla-license/guided-inquiry.

Fullan, M. G. (1991) *The New Meaning of Educational Change*, New York: Teachers College Press.

Hall, G.E. and Hord, S.M. (1987) *Change in Schools: Facilitating the Process*, Albany: New York State University.

Inger, M. (1993) 'Teacher Collaboration in Secondary Schools' in *Centerfocus*, December, Accessed 19 July 2014 at: http://groups.etwinning.net/c/document_library/get_file?folderId=214242&name=DLFE-2741.pdf.

Lortie, D. (1975) *Schoolteacher: A Sociological Study*, Chicago: University of Chicago Press.

McLuhan, M. (2003) *Understanding Media: The Extensions of Man*, Cambridge, MA: MIT Press.

Sarason, S. B. (1971) *The Culture of the Whole School and the Problem of Change*, Boston: Allyn & Bacon.

Wiggins, G. (1990) 'The Case for Authentic Assessment' in *Practical Assessment*, Research & Evaluation, 2 (2), Accessed 19 July 2014 at: http://pareonline.net/getvn.asp?v=2&n=2.

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