The Evolutionary Stages of Schooling

Key Indicators

A Discussion Paper

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June 14, 2013 version

This paper emerged out of an analysis of that as yet rare cadre of schools in the UK, US, NZ and Australia that have or nearly have succeeded in normalising the use of the digital in all their operations, educational and administrative.

The research was undertaken as part of the preparations for a forthcoming publication on **Digital Normalisation and School Transformation** I'm writing.

The belief was that the work had so many implications for schooling globally, and it would be beneficial to place the thoughts on the evolutionary stages online and allow all interested to read, reflect and if they wish to comment.

Indeed I've partnered with Roger Broadie in the UK in creating a Taxonomy of School Evolutionary Stages, a work that will provide schools globally an international measure, with easily used benchmarks to identify where they are at on the evolutionary continuum and to readily identify the path ahead.

That work will be published as an e-book in the near future.

If you would like to provide me a comment please do at – mallee@mac.com

The Evolutionary Stages

At this point in the evolution of schooling we've identified the below six evolutionary stages.

| Paper-based | Early digital | Digital | Early networked | Networked | Digital normalisation |

The transformative Digital Normalisation stage has only come on to the radar this year, even though there were strong signs in 2012 of its emergence.

The stages are a construct designed to assist schools with their planning and development. They have emerged after noting the remarkably similar journeys of all the pathfinders studied. The indicators within each of the stages are intended as a guide, full well recognising that in different situations a particular development might come earlier or later.

The crucial variables at each stage are italicised.

In considering the below it is important to appreciate all the schools displayed throughout their journey an excellent understanding of organisational change, with all throughout the stages being highly proactive, consciously seeking to foster a culture of change and understanding the imperative of the leadership being politically astute.

TRADITIONAL PAPER BASED

- *Educational agenda strongly shaped by tests*
- *Culture where the professional educators unilaterally control the teaching*
- *Organisationally and teaching wise school's operations strongly impacted by the use of paper-based technology*
- *Strongly hierarchically organised where executive invariably controls the school's operations*
- Classroom teachers and professional support staff disempowered with resulting micro outlook
- *Schools characterised by constancy and continuity*
- Paper technology reinforces status quo, the use of the physical place and the operations happening within the school walls
- *Highly insular in outlook with the focus being within the school walls and the educational professionals unilaterally controlling all facets of the teaching and learning*

- Solitary teachers, working with mass class groups, invariably behind closed doors dominant mode of teaching
- Teacher centred pedagogy most common
- Out of school teaching and learning left by default to parents and children
- Expectation that government or parents will provide the school virtually all the monies the school requires, to spend as it desires
- Token at best collaboration with homes
- Vast majority of young had normalised the use of computers and mobile technology outside school, at home and on the move
- Pronounced home-school digital divide
- Student use of digital within school limited at best to a few hours a week
- Equity of digital access invariably poorly understood, not researched and used as excuse for inaction
- Segmented silo like operation with limited links between units
- *Paper, pen and the traditional teaching board the dominant instructional technology in most classrooms*
- Decade plus

  o *control of the digital by ICT experts in school*
  o *ban on the use of student technology within th*e *school*
  o *heavy censorship/filtering of 'Net usage*
  o dominant use of computer labs for all digital teaching
  o adoption of standard operating system, technology, applications software
  o Microsoft = ICT
  o development of the school's internal network, with all schools having own URL
  o efforts by 20% - 30% of early adopter teachers to integrate use of the digital in all teaching
  o preoccupation with occasioning change via latest technology
  o use of the digital technology within the school administration/finances

- *Loose or little connection between school's educational agenda and deployment of the technology*
- *Digital and website usage peripheral to school's teaching, administration and communication*
- Paper based, one-way communication with parents and community
- Teacher development invariably mass, 'one size fits all' approach, commonly delivered externally
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EARLY DIGITAL stage

In using the term digital in this and the next phase we're referring to the movement from a paper to digital operating base and the concomitant

changes that occur both attitudinally and operationally within the school with that shift.

- *Apposite shaping educational vision for digital and networked world*
- Appreciation of the importance of digital technology in providing desired teaching
- Control unilaterally by professional educators
- Delivered within physical place called school
- Insular mindset
- School operations largely restricted to finance provided by government or parents.
- No formal recognition of or support for children's out of school use of digital or learning
- Hierarchical control of school's operations the norm
- Leadership expectation that all staff will use the digital in teaching and administration
- Increased use of formal or informal on staff 'digital instructional technology mentor/s
- *Desire – often unwitting - to move from paper to predominantly digital teaching base*
- *Recognition each school, with its unique setting has to shape its own solution*
- All staff provided/have own digital teaching toolkit
- Teachers expected to handle key administrative duties digitally
- *Appropriate suite of digital technology in every teaching room*
- Deployment in each room of an easy to use whole of class presentation technology – such as an IWB or data projector - that enables teachers to transition from paper to digital teaching mode placed in all teaching rooms
- Teacher centred pedagogy most common
- *Critical mass of teachers using the digital in everyday teaching*
- *Rapid increase in the students' school use of the digital*
- *Heavy censorship/filtering of 'Net usage common*
- School's administration largely digital
- Home-school communication predominantly one way, paper based
- Ever rising expectations by growing group of teachers using the digital in their teaching

DIGITAL stage

- *All or nearly all teachers using the digital in their everyday teaching*
- *Students' using digital in everyday teaching*
- *Whole school in class digital usage coupled with digital administration begins moving school from paper to digitally based operational mode*
- *Concomitant shift from constancy to on-going evolution, change and natural growth*
- Insular mindset still dominant
- Government or parents provide virtually all funding for school's use
- Increasing moves by staff to extend the education beyond the school walls
- Students in need of digital support researched, identified and school explores in house solutions to address equity concerns

- *Digitally empowered parents and students seek greater voice in school's use of the digital*
- *Virtually all children normalised the use of an ever-evolving suite of digital technologies*
- Escalating student efforts to use own technology in school, with associated hassles
- *The shift to a digital operational base and digital convergence occasions ever-greater organisational and operational integration*
- Use of a suite of in and out of house, personal and group teacher development and support strategies
- Significant home-school educational and digital divide
- Early moves to shift to digital communication with homes
- *ICT team responsible for choice, configuration, deployment maintenance and replacement of all hardware and software*
- *School – or school using parent monies – funds all digital technology used by school*
- Moves to ensure all students have ready in-school usage of/access to prescribed mobile personal computers
- Access to the Net tightly controlled and filtered
- Standard operating system, instructional technology and applications software
- All other technology banned
- Closed, password protected school website

EARLY NETWORKED stage

In this and the next phase we're referring to the transformation that occurs when schools reach the stage where they recognise that their digital and networked facilities removes the school's long-term reliance on students attending a physical place for learning and the necessity to continue operating as a largely insular organisation.

They now begin to recognise the plethora of opportunities for human networking, and genuine collaboration with all the teachers of the young from birth onwards.

It recognises the physical networks open the way for ever-greater and more effective human networking.

- *Principal/school leadership promote the provision of a holistic C21 networked, ever more collaborative education that transcends the physical school walls*
- *Recognise the importance of a strong shaping educational vision*
- *Growing leadership/teacher recognition of extent and impact of the young's normalised 24/7/365 use of the digital upon learning outside the school*
- School evermore aware of the natural growth and evolution flowing from its going digital
- *Dismantling of internal school walls and adoption of more integrated school ecology*
- *Appreciation of developing an interdependent school within networked environment*

- Shift to flatter organisational/operational structure
- *Staff adopting networked mindset*
- *Increasing teacher recognition of the educational opportunities for networked collaboration* – and the ease of doing so with the digital
- *Escalating collaboration between school, its homes and community – with school taking the lead*
- *Schools begin shift to a more networked resourcing model where they pool the school's resources, with those of the homes, the community and wider networked world*
- *Willingness of key staff to begin distributing control of the teaching process*
- *Pooling of home and school educational expertise and digital capability*
- Concern for equity with school ensuring all children have requisite personal technology and ready home 'Net access
- *Move to more collaborative mode of teaching that puts learner at centre*
- *Growing empowerment of all staff, teaching and support*
- Adoption of increasingly focussed 'just in time' personal and group whole of staff development and support strategies
- Areas of rapid and pronounced change impacting upon whole school ecology
- Leadership concern to ameliorate the growing pressure of change and on staff
- Change seemingly chaotic, spotted and non-linear but indeed common globally within schools at same stage of their evolution
- Moves to ensure all students have ready usage of/access to personal computers as well as class digital presentation facilities
- Enhancement of Wi-fi networking and bandwidth
- *Shift from paper based to digital communications with home and community*
- Increasing centrality of a core, working and integrating school website
- Schools seeking to make greater use of online and networked teaching
- Early moves to educate the parents on the change in schooling occurring and the part they need play

NETWORKED stage

- *Leadership committed to a shaping educational vision that provides an internationally competitive, holistic 24/7/365 education for life and work*
- *Staff adoption of networked mindset*
- *School operating within networked paradigm where it reaches out beyond the school walls in its educational quest, begins dismantling the old walls and increasingly questions past practises and seeks to involve all the teachers of the young in the education of the children*
- *Normalised use of a networked, interdependent model of school resourcing*
- Positioning of the school to readily accommodate change and sustain the desired evolution
- Continuing development of tightly integrated school ecology that embraces the in and out of school contributions and learning
- Emergence of networked learning community that increasingly integrates the in and out of school student learning in the provision of an ever greater 24/7/365, anytime, anywhere education
- *Recognition of the imperative of empowering and trusting all staff, teaching and professional support, with all able to assist the holistic evolution of the school*

- On-going use of a suite of personal and group, face to face and online whole of staff development and support strategies directed to supporting school's educational vision
- Normalised in house use of 'digital instructional mentor/s', working under various titles
- Flatter school organisational structure
- School and its community operationalize the 24/7/365 provision of digital technology to the diminishing number of students in need
- Desire to use the digital in all operations to enhance effectiveness, efficiency, synergy and productivity
- *Tightening link between the schools shaping educational vision and its use of the digital technology in the school's community*
- *Escalating collaboration between the school, its homes and community*
- *Pronounced school wide shift to more collaborative, networked and personalised mode of teaching*
- *On-going moves to enhance parents contribution to the holistic 24/7/365 teaching of their children*
- Escalating use of parent and community resources in addition to those provided by government
- *Distributed control of teaching among all the teachers of the young*
- School's digital technology leadership focussed on facilitating ready Net access and use by all within the school's community
- *Digital technology and Net core to all the school's operations*
- *School's website has been opened to all interested and is central to the school's operations, teaching, communication and on-going development*
- *Normalised use of an integrated, multi-faceted, multi-way digital communications suite*
- *Willingness to move to a position of trust and respect for the children and their homes*
- *Preparedness to accord children responsibility for choosing own suite of digital technology that want to use in class*
- Embarkation on strategy to normalise the total in class use of the students own choice of technology
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DIGITAL NORMALISATION

The digital normalisation stage is reached when schools that have adopted a distributed mode of control of the teaching process and which are collaborating with their homes in the provision of a holistic, networked education for the 21st century normalise the use of the digital technology in all facets of the school's operations, educational and administrative, in and outside the school.

It entails all the key players within the school's community – the students, parents, teachers and support staff – using their choice of personal digital technology naturally in all the school's operations to the extent they rarely give thought to the actual kit they are using.

The focus is on the functionality and desired benefits and not the tool.

The school recognises that a suite of ever evolving technology will be used 24/7/365 in all facets of the people's lives – and not simply for education, and that in using the technology everyday all will teach themselves its general

workings and ready themselves to use the apposite functionality when required.

What is already becoming apparent is that it will only be when schools reach this stage, and create the desired school wide ecology will we finally see

- a significant widespread change/enhancement in pedagogy
- schools finally providing an education apposite for today's world
- schools positioned to evolve at pace in keeping with society's ever-rising expectations and technologies growing capability.

We're envisioning the Digital Normalisation phase will move thru multiple stages.

EARLY NORMALISATION stage

- *Digital used as a natural part of all school operations by all within the school's community*
- *Student use of their own technology in classes is normalised*
- Students' homes resource the students' ever-evolving suite of personal digital technologies
- School community normalises the provision of current personal digital technology to all students in need
- Ready, natural, hassle free acceptance of the children's own technology in class
- Focus on more personalised teaching and learning, with the technology and the capability of use receding into the background
- BYOT as a term drops from the operational vernacular
- *School factors recognition of out of school learning into its everyday operations*
- *Mechanics on the workings of the student's suite of technology no longer taught by the school – student responsibility*
- *Use of student's digital functionality in higher order teaching*

Mal Lee and Roger Broadie