Hamilton West School

The best full primary school in Waikato

Digital Strategy

2020-2025

Purpose	This document details the architecture thinking for future information systems capability to support the Hamilton West School

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Reviewers

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Stacey Johanson	Team Leader	23 October 2019	0.1
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Approvals

Approver	Signature	Date
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1. Background

1.1. Introduction

This strategy document builds upon the Hamilton West School's charter together with information from national and wider government strategies, and outlines how integrated information and enabling technology will enable us all to manage our time better, and provide excellent learning outcomes through smarter, innovative delivery.

1.2. Education Context

The Technology learning area has been revised to strengthen the positioning of digital technologies in The New Zealand Curriculum and Te Marautanga o Aotearoa. This is for all students from year 1–13. Students have the opportunity to specialise from year 11–13.

The goal of this change is to ensure that all learners have the opportunity to become digitally capable individuals.

The change provides a greater focus on students building their skills so they can be innovative creators of digital solutions, moving beyond solely being users and consumers of digital technologies.

In 2020, the Ministry of Education expects that schools will be using the revised learning area to provide students with even broader opportunities to learn in and about technology, informed by the new content around computational thinking and designing and developing digital outcomes.

The Ministry have commissioned a range of resources and supports[1] for teachers and kaiako to build their digital confidence and capability and to support them to introduce the new curriculum content into their teaching and learning programmes.

The Hamilton West School has a number of initiatives underway that will support the delivery of the new digital technology curriculum:

- Google G Suite for staff and students
- Social media platforms for whanau information and involvement (Facebook, Seesaw, Skool Loop)
- Education apps delivered via iOS devices

1.3. Definitions

The following fundamental definitions are used in this document:

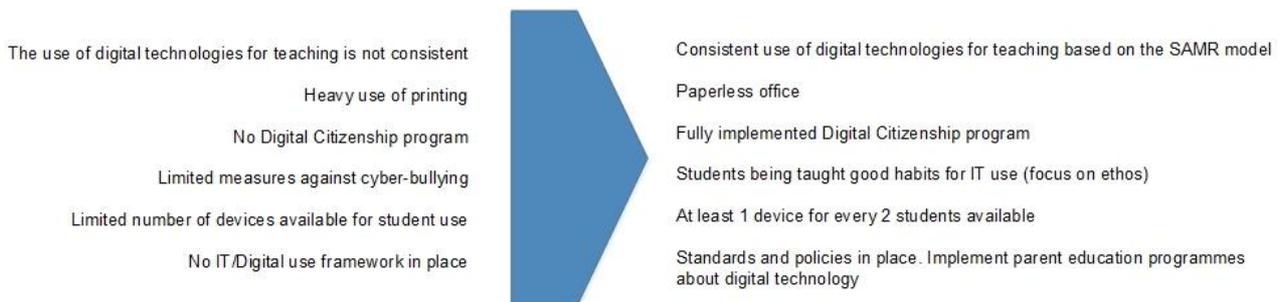| Term/Acronym	Definition
SAMR Model	Substitution, Augmentation, Modification, and Redefinition Model – a model developed to help infuse technology into teaching

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[1] These supports and resources are available over 2018-20.
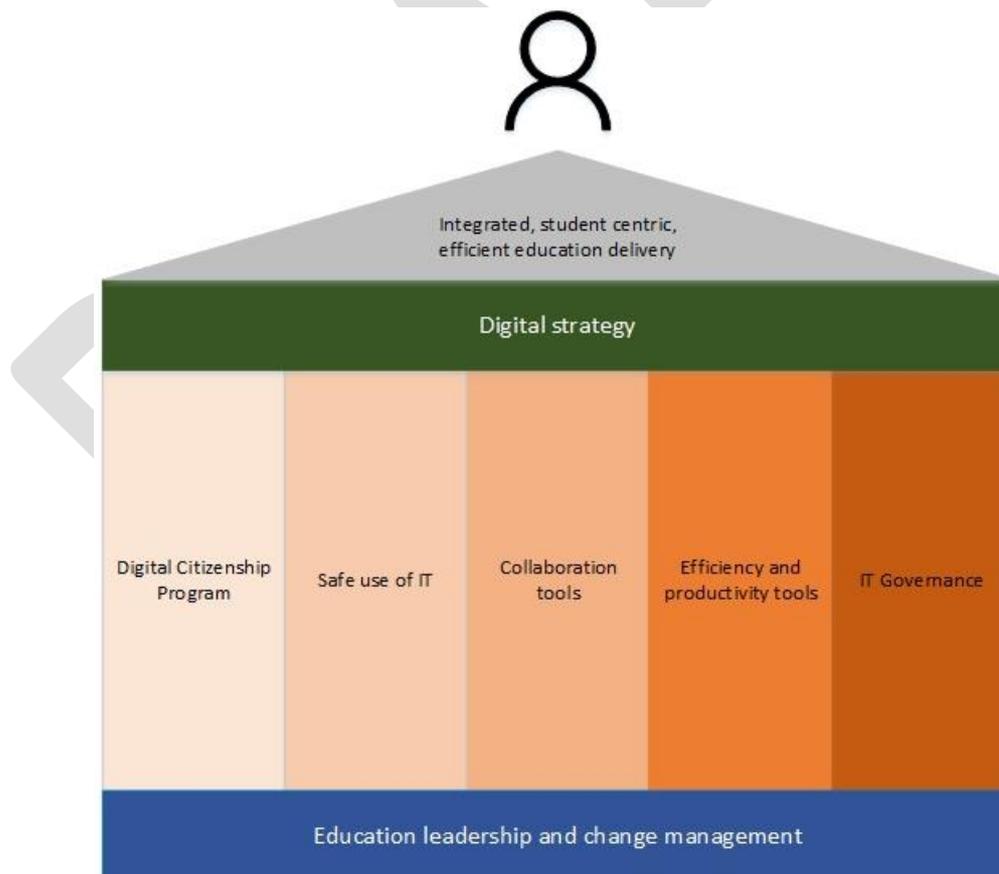
2. Digital Strategy

2.1. Vision

Future education capability requirements, identified via analysis of local and national strategies as well as trends in information technology and education, set a compelling vision for how education will be delivered in the future by the school. The direction is summarised below.

Current state	Future state
The use of digital technologies for teaching is not consistent	Consistent use of digital technologies for teaching based on the SAMR model
Heavy use of printing	Paperless office
No Digital Citizenship program	Fully implemented Digital Citizenship program
Limited measures against cyber-bullying	Students being taught good habits for IT use (focus on ethos)
Limited number of devices available for student use	At least 1 device for every 2 students available
No IT/Digital use framework in place	Standards and policies in place. Implement parent education programmes about digital technology

2.2. Strategy

The Digital Strategy has been distilled into five focus areas to support this vision of integrated, student centric, efficient education delivery, at all stages of the student journey, as illustrated in the following figure.

Integrated, student centric, efficient education delivery

Digital strategy

Digital Citizenship Program	Safe use of IT	Collaboration tools	Efficiency and productivity tools	IT Governance

Education leadership and change management

2.3.   Student Journey

The National Curriculum is composed of The New Zealand Curriculum and Te Marautanga o Aotearoa which set the direction for student learning and provide guidance for schools as they design and review their curriculum.

Although both come from different perspectives, each start with a vision of young people developing the competencies they need for study, work, and lifelong learning, so they may go on to realise their potential.

In the Technology Learning area of the New Zealand Curriculum there are two new technological areas:

Computational thinking for digital technologies – Students will develop an understanding of computer science principles that underlie all digital technologies. They'll learn core programming concepts so that they can become creators of digital technology, not just users.

Designing and developing digital outcomes – Students will learn how to design quality, fit-for-purpose digital solutions.

2.4.   Strategy Focus Areas

The five capability focus areas, Digital Citizenship program, safe use of IT, collaboration tools, efficiency and productivity tools, and IT governance are expanded below.

2.4.1.   *Digital Citizenship Program*

This focus area centres on learning how technology works and how to use that knowledge to solve problems. We want to support students to innovate and create with digital technologies, whatever pathway they may choose.

The curriculum will be available to all students from Year 1-8 (around ages 5-13). Students have the opportunity to continue with the Digital Technologies curriculum once they move onto college.

It is recommended that:

- The provision of common systems that benefit/support education services be considered the first priority. Tailored specific solutions should only be prioritised where there is strategic alignment, factoring in risk, wider implications and trade-offs.

- Thought is given not just to the technology solution itself but also the engagement of the technology in the context of teaching workflow. Consideration to the end user platform used to engage the technology and requirements to enable this must also be made to ensure that the solution adoption is successful.

- We should be guided by national mandates and standards and where national and regional solutions exist adopt them in preference to local solution development.
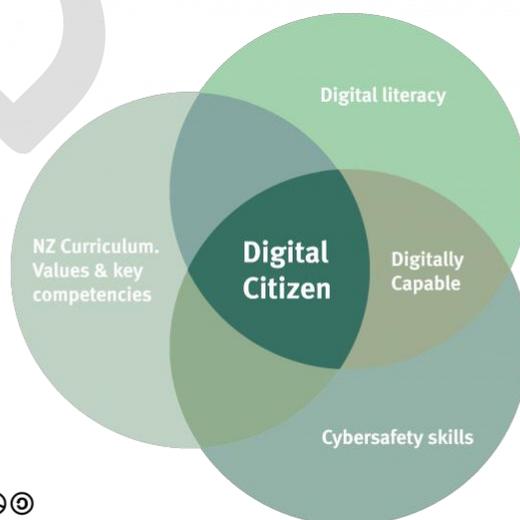
2.4.2. Safe use of IT

Cyberbullying is bullying (social and verbal bullying and physical threats) that uses digital technology in some way.

As technology becomes more central to young people's lives, cyberbullying is on the rise. Access to technology means that cyberbullying can happen at any time — a student's own home may not even be a safe place from bullying. While cyberbullying often takes place at home and after school hours, the impact can also be felt in school.

Students increasingly communicate with each other in ways that are unknown to adults and free from supervision. The nature of technology means that digital content can be shared and seen by a very wide audience almost instantly and is difficult to delete permanently.

Is cyberbullying different from other bullying?

Although cyberbullying shares some of the same elements as 'traditional' bullying, bullying using technology can be more complex and harder to deal with.

For example, an unflattering picture or rude message can be quickly spread across the internet. The element of repetition which is seen in offline bullying is compounded by the material reaching a much wider audience and having a more lasting effect than the original poster may have intended.

Being able to attack someone online and still remain anonymous creates an imbalance of power regardless of age, physical strength or social status. So does better access to (or ability to use) technology.

Cyberbullying can involve people who have never met in real life and who have no social connections.

Cyberbullying also has fewer boundaries than physical bullying.

This is because digital information can be:

- quickly shared, spread and viewed
- stored in multiple locations
- created and shared automatically
- stored in a way that only certain groups can see
- shared and posted at any time of the day or night
- left as a permanent record (e.g. photos posted on the internet).

Does restricting access to technology prevent it?

Cyberbullying has some unique characteristics, but it can't be dealt with in isolation from other forms of bullying.

Imposing barriers to technology generally doesn't prevent cyberbullying. It's more effective to support the development of safe and responsible online behaviour and to talk with students about how to deal with unpleasant online experiences, than to restrict access.

How can the school keep students safe online?

Most students will face challenges on the internet at some stage, and will resolve most of them on their own.

It is recommended that:

- Create a Digital Safety Management Plan; a Netsafe provided template could be used
- Teach students to cope with inevitable challenges and how to be good citizens
- Develop a User Agreement for the upper primary students based on a template provided by Netsafe; currently it is not recommended to make the younger students sign such an agreement. The agreement will be made more effective if it is co-constructed with the students
- Organize parent education workshops regarding cyberbullying

2.4.3. Collaboration Tools

Collaboration tools support collaborative working between teachers and students to address education more holistically at both an individual student level and at a macro investment level.

Collaboration by all is required to support cultural and technology transformation for better student outcomes. Key collaborative tools include the Google Suite apps, etc.

2.4.4. Efficiency and Productivity Tools

This focus area involves using tools to improve the service delivery and the efficiency of the school's teaching system as a whole. It will enable a transformation to increase value add activity and reduce admin overhead/low value activity. Increasing productivity and throughput in this way will enable teachers to manage their time more efficiently and in turn, being able to focus on sharing, experimenting and exploring other teaching approaches.

2.4.5. IT Governance

IT governance is an integral part of enterprise governance and consists of the leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives.

It is recommended that a number of policies and procedures be put in place, including but not limited to:

- Acceptable Use Policy
- Information Security
- Incident Response
- BYOD
- Vendor Access

2.5. Education Leadership and Change Management

It is recognised that the digital strategy cannot be delivered in isolation. Whilst the IT vendor's primary role is delivery of technology, the adoption of it is key to achieving successful outcomes. Education leadership and change management therefore underpin the delivery of the digital strategy. Teacher involvement is key to achieving solutions that fully meet their needs and supports adoption of technology.

3. SAMR Model

The SAMR Model was developed by Dr. Ruben Puentedura to help teachers infuse technology into teaching. The model allows teachers to evaluate how they are using technology in their instructional practices. "SAMR" is an acronym that stands for four levels in the technology integration process: Substitution, Augmentation, Modification, and Redefinition.

Below are various classroom examples of SAMR. As one moves through the levels, the technology becomes seamlessly woven into teaching and learning to encourage higher order thinking.

		Definition	Example
Enhancement	**Substitution**	Substitution is the first step in redefining your classroom. During this phase, classroom technology acts as a direct tool substitute, but there is no functional change to the lesson.	A teacher directs students to use Google Earth to locate a place, instead of using an atlas.
	Augmentation	Augmentation is the second step in digitally enhancing your classroom. In this phase, classroom technology acts as a direct tool substitute, and there is some functional improvement to the lesson.	The teacher instructs students to use Google Earth to measure the distance between two places on a map, instead of using calipers or simply estimating using the scale.
Transformation	**Modification**	The modification step begins to transform your lesson. Modification occurs when classroom technology allows for significant redesign of the project or task in the lesson.	The class would be instructed to use Google Earth layers to research locations on a map.
	Redefinition	During the redefinition phase, the ultimate goal, classroom technology allows for the creation of new tasks and projects that were previously inconceivable within a traditional lesson.	A teacher has students use Google Earth to create narrated guided tours of a location, which they can share online with other students.

4.   Summary and Recommendations

This document forms the basis of the Digital Strategy.

It is intended that a companion document will provide details of the roadmap activity required to realise this strategy.

It is recommended that this strategy is used as a basis for roadmaps and to guide prioritisation and funding decisions.

5. References

Document Name	Version	Author	Location or Link
User Agreement Template – Upper Primary		Netsafe	Netsafe-Kit-Student -User-Agreement-Te
Digital Safety Management Plan Template		Netsafe	Digital-Safety-Mana gement-Plan-Templa