We cannot teach our students in the same manner in which we were.  
April Chamberlain

The movement to a model where students bring personally owned devices to school is inevitable if schools are to maintain access to the tools required to provide effective contemporary learning experiences.
Rationale

At St Clare of Assisi, we believe in catering for the needs of the whole person. It is important that teaching and learning reflects the needs of our students today, our educational context should be oriented to their futures, not our past. We cannot ignore the development of technology and the opportunities it affords our students to create, communicate, solve problems and work collaboratively across all learning areas at school.

The Melbourne Declaration on Educational Goals for Young (MCEETYA, 2008) states that schools must “promote **personalised learning** that aims to fulfil the diverse capabilities of each young Australian” while the Australian Curriculum (ACARA, 2013) states, “the needs and interests of students will vary, and that schools and teachers will plan from the curriculum in ways that respond to those **needs and interests**.”

Both of these key national statements on education in Australia acknowledge that the use of Information Communication Technology (ICT) is crucial in meeting today’s educational outcomes. It is noted in the Melbourne Declaration that successful learners “have the essential skills in literacy and numeracy and are **creative and productive users of technology**, especially ICT, as a foundation for success in all learning areas.” Whilst the Australian Curriculum states that ICT will “**transform the ways that students think and learn and give them greater control over how, where and when they learn**”.

The use of ICT is an implicit part of contemporary teaching pedagogy and expectations of the role of teachers in using ICT in their professional practice are articulated in Standards 2.6, 3.4 and 4.5 of the Australian Professional Standards for Teachers. The effective use of technology is also embedded in the **Archdiocese Transforming Teaching and Learning Framework** and the **Quality Teaching Framework**, for teachers in Archdiocesan Catholic schools. It is no longer the case that the use of ICT is a helpful adjunct to learning or a part of the wider curriculum; ICT is now shaping and transforming how all subjects are learned and how teachers facilitate the educational context.

Background

Over the last 12 months, St Clare of Assisi has invested in iPads to explore the educational opportunities that handheld devices can provide. The school already had 15 iPads in the Library, but this year we increased the school numbers to 120 at substantial cost. A number of Apps have been loaded onto the iPads with a specific focus on Maths, English and cross curriculum apps that facilitate the creation of digital content. The management of the installation of Apps is centralised and teachers can request new Apps as required.

Teachers utilise the iPads in a variety of ways with usage varying from drill and practice to open ended creative tasks. Staff have been evaluating current use of the iPads and access was identified as an obstacle. The school has been considering if the current method of use is the most effective to achieve our strategic goals for learning and teaching.

As iPads were developed as a personal user device, the school has experienced some challenges having multiple students’ use the one device for open ended long/term projects. As the iPads are shared across 28 classes and 630 students, it is not always possible for students to work on the same iPad and to continue work begun previously, nor has the personalisation potential of the technology been able to be developed. Students using BYO iPads will be able to store their work and personalise their device to alleviate this problem, while at the same time enabling more effective teacher facilitation and monitoring of individual needs and progress through the technology.

In addition, we are also addressing the needs of our families, as we have had many parents and students ask if they can bring their own iPad into school. The BYOi program, upgrades to our system and subsequent polices will now allow this to occur.

Many schools within the Canberra Goulburn Archdiocese, and within the ACT Education and Training Directorate, have implemented a BYO iPad program and the Catholic Education Office (CEO) is supportive of the concept as a form of technological innovation and through the provision of technical support for this platform. The CEO has launched a program called T4C (Technology 4 Classrooms). This has been done to ensure that schools do not initiate technology based programs without first identifying the desired educational outcomes and all technical requirements necessary for success.

**Out of 24 ACT Catholic Primary Schools:**
* 11 have already implemented an iPad program
* 7 will implement an iPad Program in 2016
* 6 will implement an iPad Program in 2017

This year, St Clare of Assisi began the feasibility of establishing a BYO iPad program for the students of Years 5 and 6 as the emerging literature has begun to consistently indicate that iPads could be used to support dynamic student-centred learning environments if the correct pedagogical foundations were in place.

**MacKillop College, where the majority of our student go, currently has a BYOD Program in Years 11-12, will trial at BYOD program in 9-10 in 2016 and hope to expand into 7-8 in 2017.**
Research finds that students learn more when they use technology to create new content themselves, rather than just being the recipients of content designed by others.
Zieleński & Darling Hammond 2014

What does the research say?
There is quite a range of research about iPads in the classroom available. One of the most comprehensive studies, yet simple and easy to understand is the work of Karsentoi & Fievez (2013). In a review of 359 academic works they found the following commonly reported benefits of using iPads in the classroom were:

1. Increases motivation;
2. Facilitates access to, management of, and sharing of information;
3. Fosters student learning and performance;
4. Allows a wider range of teaching strategies;
5. Fosters individualised learning;
6. Improves the reading experience;
7. Encourages communication and collaboration among students and between teachers;
8. Improves computer literacy skills;
9. Nurtures students’ creativity;
10. A highly portable tool;
11. Facilitates student assessment;
12. Improves the quality of pedagogical support;
13. Facilitates learning how to write;
14. Makes it easier to organise schoolwork and assignments;
15. Students can make versatile and vivid multimedia presentations.
16. Significant benefits for students with learning problems.

A more detailed Literature Review and relevant articles will be available on the school website BYO iPad soon.

'Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is still the most important.' Bill Gates

The Plan
The school has adopted a four phase process: Planning; Preparing; Implementation; and Evaluation. As part of the preparation phase a number of issues were considered. These have been categorised into two areas:

- Pedagogical Considerations
- Technological Considerations

Pedagogical Considerations
The implementation of any technology program within a school must be based upon a sound pedagogical rationale. St Clare of Assisi Primary School has a number of strategies and programs in place to cater for the variety of learner needs within the school.

As a number of schools within the Archdiocese have implemented similar programs, visits have been arranged to see BYO iPad classrooms in action. Both the Principals and the class teachers spoke positively about the impact the program had on their students including the high levels of engagement and changes in pedagogy.

Critical to the success of the St Clare of Assisi BYO iPad program will be the pedagogy used to create an environment that accommodates diverse student needs. Our teachers are competent and experienced in integrating multiple technologies into the classroom.

At St Clare of Assisi, we acknowledge that the successful implementation of any technology program is reliant on quality professional learning (PL) linked to the Australian Professional Standards for Teachers. We will continue to ensure that professional learning around the implementation of BYO iPads:

- has a strong focus on pedagogy;
- allows time for teachers to become familiar with devices and applications;
- provides the opportunity to attend formal professional learning sessions;
- engages in informal collaborations with other teachers;
- uses the support of a Learning Technologies Officer from the Catholic Education Office;
- builds a professional community of practice as a platform.

As illustrated in the literature, iPad technology has an inherent capacity to be personalised and when used in a 1:1 environment allows easy, sustained and consistent access for individual students. When students use their own personal iPad it can also create links between learning at
home and school. The introduction of BYO iPad is consistent with the pedagogical literature that has been informing our program.

The **SAMR Model** is used at St Clare of Assisi to build teacher understanding of how technology can be used to enrich learning opportunities.

The SAMR Model (Puantedura, 2009)

The SAMR (Substitution, Augmentation, Modification, Redefinition) model is also used to help teachers evaluate how they are using technology. The first two stages - substitution and augmentation - accomplish "traditional" tasks that have been enhanced by the use of technology. It is in the next two stages - modification and redefinition - where technology can be used to transform learning and involve rich, open-ended, student-centred activities. It is our belief, based on the current and emerging research that BYO iPad represents the next step in the transformation of our educational context from one in which technology merely supports the initial stages of learning to one where students are genuine participants and co-creators of knowledge, skills and values.

**Technological Considerations**

Discussions were held with Catholic Education Office (CEO) technicians early in 2015 and this process was formalised when the school enrolled in the T4C program in Term 2. All technical considerations were discussed with the T4C team with the capacity of the current wireless system being the main infrastructure issue identified. The CEO evaluated the system and found it would not be capable of dealing with the expected number of iPads. The technicians have planned a new system to ensure that this dimension of the project was within the capacity of the school.

The choice of platform (i.e. iPad) was determined by the provision of a stable technical support infrastructure provided by the Catholic Education Office. The CEO has also sourced favourable pricing regimes for iPad Apps. While it is recognised that a variety of tablet devices now exist and each has its own strengths and limitations, the option of system wide support and the capacity to transfer learnings and successful innovation across schools was determinative.

The school also investigated which iPad would best meet the requirements of the project. Through discussions with the Apple Store, Mac 1 and the technicians on the T4C team it was decided that the Apple Air 32 GB or greater was the most cost effective option for meeting the identified requirements. This will allow for storage of all work, music, video and photograph collections. We also recommend that families purchase the WiFi only model (without cellular capabilities). These models also have AirDrop capabilities which are important for the program. However, as part of the trial, minis and older versions presently owned by families may be used to determine their effectiveness on the system and inform our future decisions.

The question of ‘purchase’ options is also being considered. Options may include outright purchase, leasing or payments through school fees.

**Draft Timeline**

**2014**

- Purchase iPads for Staff
- Professional Learning
- Purchase students iPads for shared use

**2015**

**Term 1**

- Form ICT BYO iPad Team
- Commence Program Development and identify necessary considerations.

**Term 2**

- Enrol in CEO T4C Program
- T4C Meetings
- Community Council Consultation

**Term 3**

- Develop Implementation Plan
- Literature Review
- Survey Development
- Community Council Consultation

**Term 4**

- Staff Professional Learning
- School Visits
- Survey Parents, Students and Staff
- Infrastructure Improvements
- Community Council Consultation
- Parent Forum and Consultation
2016

Term 1
- Planning & Preparation
- Staff, Student & Parent Boot camps
- Staff Professional Learning
- BYO iPad User Agreements Completed
- Cyber safety Education
- Development of iPad Support Website Link

Term 2
- Year 5 Trial
- Progress Evaluation and Review
- Staff Professional Learning

Term 3
- Year 5 Implementation
- Progress Evaluation and Review
- Staff Professional Learning

Term 4
- Evaluation & Review
- Year 5 (2017) Parent Forum and Consultation

2017

Term 1
- Implementation of Year 5 and Year 6 BYO iPad Program

Safety

Internet traffic at St Clare of Assisi is filtered by the CEO Internet filter ‘Z-Scaler’. All iPads will access the Internet via this filter. Please note that when students use the Internet at home (or anywhere else) access will be filtered by whatever system is in place in that location.

Safe and responsible use of technology is an essential part of participation in this program. During 2016 the school hope to use the “Cyber smart” and “Think U Know” programs, and Australian Federal Police Officers will also work with the students in relation to cyber safety. Ongoing education about cyber safety and how to be a responsible digital citizen will be an integral part of the BYO iPad Program.

All participants (parents and students) in the program will need to sign and abide by the school’s BYO iPad Acceptable Use Agreement.

Frequently Asked Questions

What is the proposed timetable?

The school has adopted a four phase process: Planning; Preparing; Implementation; and Evaluation. We are still currently in the planning and preparing phases. We have commenced updates to our school network in order to support this program and we hope to be finished over the holidays. Staff will also be visiting other schools and receiving support from the Catholic Education Office who is supporting our initiative. The school Leadership Team and the Community Council will also be developing policies and procedures for the program.

Implementation will commence with a Year 5 trial in Term 2 (or earlier if possible) and then full implementation in Term 3 if all goes to plan.

Why the iPad?

Information technology is the most rapidly changing and growing industry in the world. The choice of platform (i.e. iPad) was determined by the provision of a stable technical support infrastructure provided by the Catholic Education Office. The CEO has also sourced effective App management systems and favourable pricing regimes for iPad Apps. While it is recognised that a variety of tablet devices now exist and each has its own strengths and limitations, the option of system wide support and the capacity to transfer learnings and successful innovation across schools was determinative. It is just not possible for a teacher to teach effectively if students have a range of devices with different capabilities.

The iPad will not replace all books, writing, drawing, sport or art. The iPad will not be in constant use - it is intended to be a learning tool to complement and support the learning and achievement not TO BE the learning.

This YouTube video puts it simply: https://www.youtube.com/watch?v=Bq9yss1KRwE&t=68

Is the BYO iPad Program optional?

Yes, those students who do not have a personal iPad will have access to the school shared devices as they currently do during school time when available.

What the iPad does is it opens people’s minds to a new way of doing things. They're actually thirsting for it.

Mike McCue
Why not an Android device?
For many of the reasons stated above. In addition, all the Catholic primary schools in the ACT use iPads so there is great opportunity for sharing, creating learning networks and learning from each other. One school began with just any device and they found it difficult for teachers to manage a variety of devices, the network struggled to cope with a range of devices and they did not achieve the level of outcome they wanted. They are in the process of migrating to iPad only and all aspects of the program are improving. Our teachers at SCA have been working with iPads for about 18 months now and are confident with managing them in the classroom and creating engaging learning tasks. Also, the Apple Education Platform is huge and offers probably more than we need.

What type of device will be needed?
The school also investigated which iPad would best meet the requirements of the project. Through discussions with the Apple Store, Mac 1 and the technicians on the T4C team it was decided that the Apple Air 32 GB or greater was the most cost effective option for meeting the identified requirements. This will allow for storage of all work, music, video and photograph collections. We also recommend that families purchase the WiFi only model (without cellular capabilities). These models also have AirDrop and quality camera capabilities which are important for the program. However, as part of the trial, minis and older versions presently owned by families may be used to determine their effectiveness on the system and inform our future decisions.

Purchasing an iPad
Families can make their own decision regarding where to purchase a device from. iPads can be purchased directly from the Apple Store or from major electronic retail stores. We are currently investigating options for parents to purchase iPads through the school either through leasing arrangements for through school fees. Each student will need to have a protective cover of choice (Not too fancy) that stays on the iPad at all times as well as an additional protective bag/case to transport the iPad in. Earphones for use at home and at school are not a bad idea either.

What about insurance?
Insurance - It is the responsibility of the family to insure their device and any breakages or damage that may occur is the responsibility of the owner. It is advised that you check your home and contents insurance - this may be a viable option for you.

Do the students still use books, etc to do their work?
Yes, the students will still use books every day; the iPad is viewed as another tool to enhance learning.

Are we still required to pay the Technology fee as part of the school fees?
Yes, all families still pay the technology fee for 2016 as this fee goes towards all areas of technology access, including infrastructure costs, security and other resources.

How much time will be spent on their iPad each day in class?
This will vary, depending on how the teacher & student decide to use the iPad to support their learning. It may be used for drill & practice during a Maths or Spelling/Literacy lesson, organising and creating work as a result of an inquiry/research task in a work flow situation, story-writing, using a dictionary, referring to the Bible, searching for a location using Google earth, creating during a music lesson, internet searching at the various times of need during the day, collaborating on a task, participating in a virtual excursion (e.g. Art Gallery, zoo etc.) taking photos to use in a task,......the potential is endless. But remember, it is about using the best tool for the activity, and this may not always be the iPad.

What about Apps?
In 2016 we will be trialling a new system called AirWatch. AirWatch is a Mobile Application Management System that allows us to deploy and manage applications while protecting user privacy and security. Families will be asked to download a free App which the school then uses to deploy the required Apps on the student iPads. When the student leaves the school, the App can be easily deleted. The school will cover the cost of the Apps.

What if my child wants to buy other Apps to use after school hours?
As the family owns their device they can purchase other Apps at their discretion using their own iTunes Account. Parents will be required to set up an iTunes account (with an email account used for the Apple ID) for their child. In accordance with Apple’s terms and conditions, parents are asked to manage the Apple ID for children under 13 years of age. It must not be linked to their parents own Apple ID account OR credit card. It is our strong recommendation that any additional Apps be purchased using iTunes cards.
What happens if a student uses a gaming App at school?

As part of the “SCA BYO iPad User Agreement” students and parents will have a clear outline of SCA’s policy in regard to the misuse of their device or use of inappropriate Apps. Such as, the deleting of the App, taking the iPad off the student for various periods of time, notifying parents, or the iPad may be banned for an extended time etc.

Saying that, there is growing evidence that gaming Apps can support educational outcomes and promote student engagement. However, we will not be investigating these options at the moment.

Are the students allowed to use their iPads at recess and lunch?

No. Students will only be allowed to use their iPads during class time. They may take it to their library, music and Indonesian lessons if required. They will also not be permitted to use their iPads on their journey to and from school.

What about Outside School Hours Care (OSHC)?

Students will not be allowed to use their iPads at OSHC unless arranged by the parents and staff for homework purposes. OSHC will also have lockable storage for iPads to be stored securely.

What happened if a student brings their iPads to school not charged?

It will be a highly recommended requirement that each student charges their iPad each night and brings it to school 100% charged. Students should bring their own labelled charger if they know their iPad is low on charge. The school will only have a few emergency chargers available BUT if a particular student is continually not responsible with charging their iPad each night then they will not be able to use it during class time.

What happens if a student forgets to bring their iPad to school?

If a student forgets to bring their iPad to school then they will have to complete their work using other tools of learning. If this occurs more than once the parents will be notified.

Is there any need for me to supervise my child while using the device at home?

It is important for parents to monitor usage. This may include supervising visited websites through the History and Bookmark Tabs and having awareness as to which iPad applications are being used. It is also worthwhile to remember that the amount of time children spend on the device needs to be negotiated with you. Set time limits. There needs to be a balance between completing schoolwork and recreational time spent on the iPad. Remember the iPad was initially purchased as a learning device. Therefore, we need to demonstrate to our children that we value the device as a teaching and learning tool rather than a gaming device.

What device security will be in place?

iPads will be kept in a secure school location from the time students arrive at school until they leave in the afternoon. At St Clare of Assisi, we plan to have lockable storage in every BYOi classroom.

What content security will be in place?

At school all outside connectivity is monitored through the school’s Internet filtering system thus blocking access to inappropriate material. Parents would need to monitor home use the same way they currently monitor home computer access.

Can I control what the device can access?

If the device is an iPad, parents have the ability to easily control access to a wide range of functions including Internet access and messaging. This feature is password controlled by the parent.

Can students access social media?

Most social media sites have an age limit of 13 years and are therefore blocked by the school’s filtering system. If parents choose to allow access to these sites at home then they must monitor this.

How will the school ensure responsible use?

iPad use by students will be monitored by their teacher in the same manner as current classroom practices. Students will receive ongoing instruction on responsible use and Digital Citizenship. The SCA BYO User Agreement is in place for students who do not comply.

Trinity Christian School introduced an iPad program into Year 6 in 2014 and the program will move into Year 7 in 2016.

Will I know what my child is using the iPad for?

As your child is using the same iPad at school and at home they are more able, and willing, to share with you what they have been working on at school. This affords parents a greater opportunity to keep in touch with what happens in the classroom.
Will using devices at school cause eye strain?

Eye strain is caused by concentrating on a fixed point for a prolonged period of time. This could be a screen or a book. The American Optometric Association suggests adopting a '20-20-20 rule'. This means taking a 20 second break at least every 20 minutes and looking at something 20 feet (6 metres) away. This happens naturally in a classroom where students are working collaboratively, moving around the room and looking at other students work.

The closer the screen resolution is to the human eye itself, the better it is in terms of visual comfort. At the normal distances for tablets, the human eye’s resolving power is about 240 ppi, the new iPad’s retina screen display is 264 ppi.

Do I need virus protection?

At this stage iOS devices (iPads) do not have any problems with viruses.

How will teachers cope with the technology?

The teacher is the learning expert in the classroom so technical proficiency is of less importance than pedagogical proficiency. Teachers are already committed learners so will continue to undertake internal and external Professional Learning opportunities to expand their knowledge.

How safe is online collaboration?

The educational value of collaboration is well documented in research literature. At school level that benefit is achieved through secure and trusted online tools that are not publicly accessible.

How will the school evaluate success?

The effectiveness of the project will be evaluated the same way in which all educational programs are evaluated. Qualitative data will come from classroom observation and the engagement of the student. Quantitative data will come from how well the students achieve the learning outcomes set by the teacher based on the curriculum.

How do I manage my child’s usage at home?

BYOI is a partnership between the school and the family.Whilst educational use is the primary function of the device it is also available for use at home however the family wishes. BYOI use is built on trust and responsibility – at school and at home, the child needs to show that he/she is a responsible user who can be trusted with the device.

At school, students abide by a BYO iPad Acceptable Use Policy. After school, parents are in control and they set the parameters of acceptable use at home. The device should not be used for anything or in any way that parents are not comfortable with.

Parents should set boundaries for where, when and for what purpose the device is used. Generally this will be in line with current boundaries already set for computer use at home. If you are not comfortable with a school related task being done at home, then discuss this with your child’s teacher.

If you wish to limit the functionality available to your child then the iPad has a comprehensive selection of controls where access to the internet, messaging, App purchases and other functions can be blocked. St Clare of Assisi Primary will run a workshop to assist parents with mobile device management if required.

Have the ergonomic effects of iPad use been considered?

According to researchers at the Harvard School of Public Health, a new study published in 2013 was among the first to look at the possible ergonomic impacts of tablet use, and there’s good news and bad news. The good news is that tablet users seem to shift position and move around more than people locked in to traditional desktop and notebook computers. The bad news is that most common ways of holding and using tablets seem to put considerable strain on user’s neck muscles — especially compared to typical desktop setups.

To ensure that we are supporting students we will encourage the standard ergonomic recommendation of moving every 20-30 minutes. We will encourage quick mini breaks and constant reminders for correct posture. We also hope to utilise an Occupational Therapist to talk with students about the importance of correct ergonomic positioning.

How will my child identify their iPad?

By encouraging a personal choice of cover there will be sufficient variation for students to recognise their own device. Name labels and other identifying labels would also assist.

Marist College has a BYO iPad program in the Junior School and BYOD in the Senior School.
Will students use the iPads in the playground rather than interact with their peers?
Students are not allowed to use their device in the playground. Students will be required to leave their iPads locked in the classroom during break times.

Will the battery last for the whole day?
The battery life of the iPad Air 2 is 10 hours of normal use (including web-browsing, watching videos etc.) If students make sure they charge their device each evening or every couple of evenings they should find that the battery life is more than ample for use at school each day. For tips on how to conserve battery see the following website: http://www.apple.com/au/batteries/ipad.html

Will my son/daughter stop handwriting?
The iPad complements what students are doing in class rather than replacing key aspects of learning such as handwriting. At times students may be able to type notes on their iPad, however, this is not be the primary use of the iPad, nor are students permitted to do this all the time. Handwriting will still be an integral part of the curriculum and a core skill for students to develop.

Acknowledgements
We acknowledge the support and advice of the Principal and Staff of:
- Rosary Primary School, Watson
- Good Shepherd Primary School, Amaroo
- Sts Peter and Paul Primary School, Garran
- Holy Family Primary School, Gowrie
- Sacred Heart Primary School, Pearce
- St Bede’s Primary School, Red Hill
- St Thomas Aquinas Primary School, West Belconnen
- St Francis of Assisi, Calwell
- St Mary MacKillop College, Canberra.
- St Clare’s College, Griffith
- Marist College, Pearce
- Trinity Christian School, Wanniassa
- St Thomas Aquinas, Bowral.

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