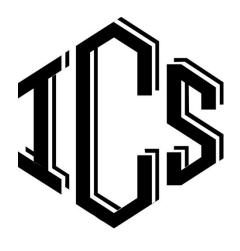# Immaculate Conception School Technology Plan

2015-2018

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Mission

Immaculate Conception School's (ICS) mission is to "advance a rich, student-centered learning environment integrating technology thru all facets of the educational experience. This will entail keeping technology stable, working, and evolving at a pace that provided for well planned growth." - As stated in 2015-2020 Immaculate Conception School Strategic Plan

Technology Goals

Immaculate Conception School will use this plan to foster the integration of technology and grow it with the needs of the curriculum. The goals are summarized as follows:

- Increase and support the infrastructure and network to support upgrades and new technology
  Time: July 2015 & Ongoing

- Procure cloud-based technology that will support learning and communicating with state of the art collaboration features which will be available both in school and from home for students, teachers, and staff.
  Time: September 2015 & Ongoing

- Develop a five year plan to rotate and replace the technology equipment to ensure the ongoing availability for us in ICS.
  Time: January 2015

- To transition faculty and students to use mobile devices which will enhance and broaden student awareness of the global world through a 1:1 device integration with back office support starting in the middle school with expose moving to lower grades.
  Time: August 2015 & Ongoing

- Provide hardware, software, and infrastructure to support the integration of technology

- Promote cross-curriculum integration of technology and learning

- Use effective communications to convey information to the ICS community

Technology Strategy

Immaculate Conception School's Technology Plan is flexible, focused on the curriculum, and tailored to create a learning environment that appropriately integrates technology to support learning in the 21st century. The increased engagement of the students in the learning process with a variety of methods increases the retention and application of the material. The ICS faculty molds the curriculum around the implemented technology to allow the students to apply the latest tools and information available to enhance the learning objectives. The faculty members are continuing to update their own skills and knowledge to make the class material more interactive and provide a 21st century learning environment that is interactive and focuses on the creation of independent thinkers who are able to collaborate and successfully navigate the world around them.

Immaculate Conception School is a nationally recognized Blue Ribbon School. ICS follows the standards of the International Society of Technology Education (ISTE), the State of Maryland Department of Education, and the Archdiocese of Baltimore Division of Schools. Therefore, the technology plan must also meet or exceed the stated requirements in order to continue to lead in the quality of education.

In addition, ICS seeks to increase the involvement of students and parents in the learning process by using distance learning platforms, including eChalk, and other web-based applications. Ethical use of the technological resources is to be agreed to according to the Acceptable Use standards adopted for the faculty and students/families. Access to the tools is dependent upon individual acceptance of the policy. In this way, ICS forges a partnership of faculty, family, parish, and community to promote the highest achievement each student is capable of attaining.

The school's strategy is continuing to use technology across the curriculum to enrich the learning experience. It has become a continual focus to challenge ourselves as a school community to look past what we are doing and create relationships with others and other schools and organizations. It is through these relationships that both faculty and administration can better understand available resources, collaborate with others, and create new ideas and new resources. The strategy of creating relationships with others will help to not limit our learning opportunities and strengthen areas within our community.

 In addition to the use of laptops and SmartBoards, ICS is transitioning faculty and students to use mobile devices which will enhance and broaden student awareness of the global world through a 1:1 device integration with back office support This transition was initiated with faculty and staff members, then moved into the classrooms starting in the middle school and is continue to grow with expose moving to lower grades.

One strategy that ICS is set to use as a way to better understand what is available in regards to technology and best practices for implementation is through the development of relationships with other schools and organizations. This strategy will help administration, faculty, and staff to better support student learning and create an environment that appropriately integrates technology.

Another strategy that ICS includes in their technology implementation is the use of distance learning platforms and other web-based applications to support collaboration among students, parents, and teachers. Teachers are able to provide class instruction, review their lessons, and provide resources with

the individual students or the entire class as needed. The added flexibility brings immediate attention to the student to improve the learning process. Each subject is addressed with technology and applications that are grade appropriate learning goals. The laptop computers and iPads on the carts use wireless technology for maximum coverage and movement within the school. These resources are spread across the bandwidth and back office for support purposes. These allows for students and teachers to take learning outside of the classroom and even to global applications.

The technology supporting the Immaculate Conception School includes a robust suite of network systems, computer hardware, and software. The Technology Director and school administration develop the Technology Plan and deploy the resources accordingly.

If a need develops that can be addressed without reworking the technology plan and the budget is available, those needs may be addressed within the school year. Prior to identifying the appropriate solution, other requests may require a review by the Technology Director and school administration. That may be followed by further investigation within the faculty and with outside vendors.

Technology Components

The technology was designed to accommodate a staff of 100 +/- and a student population that fluctuates between 560-600 students. Consideration was given to the needs of this community, the applications they need and the curriculum requirements. The details are as follows:

Phone Service

- AT&T is the provider for Local, Long Distance and Internet.

- 1 PRI ISDN T 1.5 for voice with 300 DID numbers

- 4 Prime Path business lines
  - Note: In addition, the business lines and cell phones offer disaster avoidance coverage.

- AT&T Mobility provides multiple cell phones.

- NEC Univerge SV8100 internal phone system

  - Approximately 187 users are supported with phones in all classrooms, offices, and gathering spaces. The phone system is supported by a UPS for 2 hours of service.

Network

ISP
- 100MB Dedicated Fiber Cable connection for Internet Access

- 1 Bonded T1 Managed Internet Service with a Managed Router for Internet access

- These two systems are configured for load balancing/redundancy

Network and Server Hardware

- **Email Server:** Exchange Server 2007

- **Two Domain Servers:** Windows Server 2008 R2 Enterprise

- **Four Application Severs:** File server, Print server, Virus Scan Server, ParishSoft Server

- **Spam Filter:** Barracuda

- **Firewall** : Meraki/Cisco

- **Content filtering:** Meraki/Cisco

- **Backup/Recovery:** Barracuda Backup server

- **SPAM protection:** Barracuda SPAM Filter

- **LAN/Internal Nework**: Ethernet 10/100/1000 Wireless A/B/G/N/AC

- **Fiber Optic:** Connecting floors and buildings across campus

- **Wireless:** Meraki/Cisco   100% Campus Coverage via access points

- **Switches:** HP Procurve 2910al, 2626 Managed Switches, housed in 7 IDF rooms across campus

User Device Support

- **User Device:** 150 Laptops, 97 Desktops running Windows 7 Pro. They are networked through wireless and LAN connections

- **Mobile User Device:** 71 Apple iPads

- **Microsoft Office Suite:** MS Office Suite 2010

- **Antivirus**: Vipre Business

- **Projection Devices:**
    - 51 networked projection devices permanently installed in classrooms, cafeteria, and auditorium
    - 6 mobile projectors
    - 46 AppleTV devices installed as companion hardware with each installed projector
    - 1 mobile AppleTV device
    - 2 Document Cameras

- **SMART Interactive systems:**
    - 42 Installed SMARTBoards
    - 2 SMART Interactive projectors

Proprietary to Immaculate Conception School, Towson, MD
Not to be used without the express permission of the Principal

- 5 SMART Response kits

Web Hosting: Systems Alliance for the Parish/School website, and eChalk for the teacher websites

Technology Plan Professional Development

Professional Development occurs throughout the year to ensure the faculty's skill level is kept up to date on enhancements to software like Microsoft Office, electronic grading, Rubicon curriculum mapping, web design software, Google applications and other educationally based applications with a goal of eventual incorporation of graphic design software and application. SmartBoard training and support is also provided throughout the school year. In addition, ICS trains when new technology is deployed (i.e. laptop and iPad distribution) to maximize the impact on the learning process. The technology training is delivered in a variety of methods.

Faculty members are trained on a continuing basis by college credited courses and on Professional Development days with outside presenters. Faculty also receives in-house professional development from qualified members of our own community. A professional development opportunity is provided to faculty and staff members on a weekly to biweekly basis after school. This opportunity is hosted by the technology educator.

Skill development varies by grade and needs to match the curriculum. The Professional Development to address this variance is planned in conjunction with several outside experts based on identified needs. The professional development budget and received funding from state allows for opportunities for staff members and faculty to attend both state and out-of-state conferences and other professional development opportunities. This allows for faculty and staff to be encouraged to participate in professional development opportunities, as well as supported both as an individual and as a larger community.

Some of the elements of professional development will focus on the use of technology tailored to each grade and subject area. Other training opportunities are introduced to the entire faculty as new techniques are deployed for the entire school to use. Currently, ICS is focused on Rubicon curriculum mapping as a collaborative platform for teachers to further develop curriculum to support student learning. With the implementation of the 1:1 iPad device program a focus on iPad training and assistance in curriculum integration has become a component of professional development for the whole school with a larger focus within the middle school. There is also professional development focus on Robotics and Engineering. With the implementation of a Robotics and Engineering club in spring 2015 and ICS's receiving of a 3D printer and software for grades 3-8 curriculum a goal will be growing focus of professional development in the 2015-2016 school year will become on Robotics and Engineering curriculum. There is also a focus on the integration of Google applications in instruction.

One of the goals moving forward with professional development is to create relationships with other schools and organizations to help better support student learning. It is through these relationships we can learn and collaborate to better understand strategies used to implement technology, as well as discover new technology opportunities.

Some of the faculty training needs are determined by the nature of the Help Desk Trouble Tickets. Skills can be fine-tuned in a short timeframe by the Technology Director or Technology Instructor providing hands on refreshers on the use of the software.

Technology Evaluation Process

Components of the plan may be updated as needed by the Immaculate Conception School Principal and the Technology Director.

This team will suggest needed evaluations of components of the Technology Plan to the Technology Committee and/or other outside stakeholders or necessary staff or faculty members as they deem as required.

Ongoing operation and failure rates provide daily insight as to the needs of the school as well. Various components are addressed differently because of the demand put on the hardware and the planning cycles for the curriculum, and based on teacher input and the special needs of the students. Throughout the year, other modifications are made based on changes in curriculum, education standards and needs such as review of bandwidth utilization, capacity for voice and data as well as maintaining the current Microsoft Office Suite Software deployment with associated upgrades.

The equipment is evaluated annually and placed on an upgrade schedule by the Technology Director to rotate from Middle School to the Lower grades and then into the adjunct administrative areas. Changes are made as needed. With the deployment of a 1:1 iPad tablet program starting with the incoming 2015 6th graders, evaluations of the program, curriculum, and back office will be made throughout the school year. Any necessary updates or changes will be made as needed.

The application software is evaluated at minimum annually with insight from the faculty, Archdiocese, vendors, other schools and partnerships, and the guidance of the State Department of Education. Modifications can also arise due to a change in the curriculum or student needs. When these situations fall outside the planning time, meetings are convened to address the issue and decide on a plan of action.

When a new product or service is identified, the faculty is given an opportunity to work with the Trial product/service and offer comment as to the usefulness and fit to their needs. When software or a product is acquired and the manufacturer allows, the licenses are purchased with a travel copy, so the teacher may use it to practice how it would be used in the classroom, while at home in a test mode. This also enables the teacher to prepare lesson plans that fit the learning program. Teachers are then expected to provide feedback and/or led a professional development training session regarding the software or product.

Trouble tickets for hardware and software are created by an email message preferably or a phone call to the Help Desk. They serve as a flag for further evaluation as well. Troubles are prioritized and individual response is given. Based on the number and type of troubles, modifications may be made in either the hardware or software during the school year, after consulting with the School Administration and determining the funds are available by contacting the Finance Manager and the Coordinator of Government and Public Funding, the Technology Director will procure the new items.

Through the faculty insight, conferences attended and outside experts consulted, the School Administration and Technology Director continuously explore new technology that can improve the educational performance of the students and instructional performance of the faculty. The intention is to

continuously review and improve the infrastructure to offer the students and faculty the best overall tools and resources to achieve the educational goals established for each subject and grade.

Student Technology Acceptable-Use Policy   *September 2014*

I understand that it is a privilege to use the technology resources at Immaculate Conception School, and I agree to abide by the following rules.

1. I will use only my own username and password to log on to the network or the username and password provided by the Technology Instructor or Homeroom Teacher.

2. I will use only my own files or files provided by the teacher. I will not access other students' or teachers' documents without permission. In addition, I will always check files brought in on a removable media (such as flash drives) with antivirus software and only use them if they are found to be clean of viruses.

3. I will use technology only as instructed and for academic purposes.

4. I will use only royalty-free and copyright-free graphics and music for any of my school computer projects.

5. I will not change the configuration (e.g. Screensavers, Window settings, printer settings, Internet settings, etc.) of the Immaculate Conception School computers unless instructed to do so.

6. I will not use ICS 'or other computers to hurt my classmates, my teachers, my family, or myself. I will keep my password private and not allow other Users to access my account.

7. I will not use technology to access inappropriate information on the Internet or to send unkind or inappropriate information to others. In addition, I will not share personal information on the Internet.

8. If given a school email account, I will use appropriate language at all times online and treat others with respect. I assume responsibility for messages I send to others or that are sent to others via my account.

9. I will not attempt to access files, software, or other network resources that I am not authorized to access.

10. I will ask for assistance from a teacher if I become aware of a computer, tablet, printer, scanner, microphone, or camera that is not working properly.

By signing below, I agree to abide by the Acceptable Use Policy and understand that if I do not follow these rules that my computer privileges may be taken away, and that other disciplinary action may be taken as outline in the Immaculate Conception School Handbook.

iPad Acceptable Use Policy for Faculty

As a faculty member, you are being provided with a 16GB Wi-Fi iPad for your use in the classroom and at home.

You are expected to use this iPad in a responsible and professional manner, adhering to the guidelines below:

a) I understand that the iPad belongs to the school. The school reserves the right to monitor and inspect the iPad for content that conflicts with network rules or school policy.

b) I may keep the iPad as long as I remain a faculty member. In the event that I leave the school or go on maternity leave, I understand that I will return the iPad to the school.

c) I will not allow my school iPad to be used by anyone other than ICS employees.

d) In the event that the iPad is lost or stolen, I understand that I am responsible for replacing the iPad.

e) In the event that the iPad is damaged, I understand that I am responsible for the cost of repairs or the cost of replacement.

f) In the event that the iPad needs to be restored, the technology department will not be responsible for backing up personal information on the iPad.

g) I will backup/sync my personal information on the iPad using iCloud, iTunes or by other means as deemed acceptable by the I.T. department.

h) I may purchase and install personal Apps on the iPad. These must be paid for through my personal iTunes/AppleID account.

i) I will not purchase Apps for my school iPad that would be considered inappropriate or unprofessional.

j) School-related and academic Apps may be purchased via gift cards or through the school's Volume Purchasing Program. School Apps will be retained by the school when a faculty member leaves employment unless the school decides to "gift" the Apps back to the faculty member.

k) I will limit my use of streaming Apps, such as YouTube, to academic purposes during school hours.

l) I will not download large media, such as video and music, during busy school hours.

m) I will not download media from illegal file-sharing sites to my iPad at any time.

Conclusion

The Technology Plan for Immaculate Conception is a living document that continues to evolve as the needs of the educational environment require. Technology is a vital tool used in the educational experience Immaculate Conception School offers to ensure the students receive an advanced rich, student-centered learning environment integrated with technology thru all facets of the educational experience. The plan is meant to keep technology stable, working, and evolving at a pace that provided for well planned growth.