

# Newbattle Community High School - A Digital Centre of Excellence

Hannah Jones & Dr Sharon Wright

# Introduction

We have been asked by Architecture & Design Scotland to work with Newbattle Community High School, focusing particularly on how their new building can fully express and support their Digital Centre of Excellence status.

The new school, which opens in Autumn 2018, needs to maximise the benefits of the investment, and best practice from the project should inform the briefing of future secondary schools in Midlothian and Edinburgh.

In order to do this, we have reviewed the work already undertaken, including the outcomes from the earlier workshop with Professor Stephen Heppell, and looked carefully at the design of the new building. Meeting both the Headteacher from Newbattle and key leaders from Midlothian Council, we were able to understand the core aspirations for the Digital Centre of Excellence and the types of spaces and technologies which would support this.

In this report we have sought to draw on good and interesting practice from the UK and elsewhere, and to look at the physical spaces and technology required to deliver the Digital Centre of Excellence. We have also set out some ideas on the process of developing the skills and competences students, staff and community will require in order to ensure the digital technologies are embedded in the culture, ethos and curriculum of the school for it to be a success. Finally, we have sought to determine how much change is required, how it will be delivered, and how the outcomes will be articulated to stakeholders to get their buy in and ownership.

We hope this approach not only serves to support Newbattle Community High School as it moves forward, but will also provide a range of tools and ideas for other schools looking to develop their own 'excellence', driven by future capital investment.

# Overview

We have aimed to answer the following questions in the report :

- What is a Digital Centre of Excellence?
- How much change are we trying to achieve?
- How do we harness the physical space and information technology to support teaching and learning and raise standards?
- What are the opportunities and risks?
- What are the trends in digital learning and technology developments and how do we plan for them?
- How do we plan for change whilst ensuring that standards of learning and behaviour are not compromised?
- How do we articulate our vision and new ways of working so that all of our stakeholders understand and can support our approach?
- What interesting practice exists elsewhere that we might draw on?

# What is a Digital Centre of Excellence?

In considering how Newbattle Community High School can best express its aspirations we feel there are three key elements of the Digital Centre of Excellence.

They are to :

- Harness technology to support and enhance teaching and learning
- Be a showcase for digital technology and use it to enthuse the school community and celebrate success
- Look outwards to employers and the local community, engaging with them and inviting them into the school

# Harness technology

Newbattle's new build aims to provide its students with a first-class 21st Century education and the real-life skills that will benefit them throughout their lives. A place where staff and students have the appropriate resources and tools they require to access the highest quality teaching and learning and to personalise the curriculum for all.

The school aims to exploit the latest and most sustainable ICT solutions to ensure that its vision, curriculum and desired style of teaching and learning can be implemented and sustained.

# Be a showcase

The new building will be an opportunity for Newbattle to celebrate the skills and talents of its young people, recruit and retain the best teachers, and showcase the importance of education in the community.

Every space in the school will be an opportunity to share core messages, display high quality work, communicate what is important, and encourage collaboration and cohesion.

Digital technology will play a crucial role part in how that message is delivered, not only in the provision of digital screens and the availability of devices, but in the content produced. Encouraging students, staff and community to develop constantly updated information which they want to share and which underpins the core ethos, generates enthusiasm and ownership.

# Engage with employers and the local community

This will involve reaching out to employers to ask them to share their expertise and knowledge with students and staff. For staff there are opportunities to offer CPD, and provide work shadowing or mentoring to give experience of how technology is developed and used in the modern workplace. For students, employers are well placed to provide real world experiences by setting project briefs, mentoring, providing guest lectures and offering work experience.

The school will also be a welcoming space for the community, drawing in local people for advice, learning and leisure opportunities which is an opportunity to introduce them to what the school does more widely while they are in the building. The community entrance is also a chance to, for example, create space for self employed people to have a drop in space to work, alleviating the isolation many feel where they work at home. And using the school facilities to provide spaces where small business can be trained on the latest technology might also be helpful.

In the appendices we have included details of the creative and cultural sector partnership set up by Cardiff Council to enhance the links with the growing sector in the city with a focus on raising aspirations and educational attainment.

# Engage with employers and the local community

Included in the appendices are details of the growing number of informal workspaces which cater for the self employed or small businesses in many communities. Two of the examples shown are in Aldridge Trust schools which offer advice on setting up a business for the under 25s and provide a number of small start up units. The Trust schools have a specialism in entrepreneurship and the businesses they support provide enrichment activities in the schools as well as acting as constant role models.

Also included are some examples of the work going on in University Technical Colleges (UTCs) in England. UTCs cater for 14-19 year olds and their key features are :

- By integrating three types of learning – technical, practical and academic – UTCs create an environment where all students can find their strengths and specialise in subjects that interest and engage them.
- As part of their study, students participate in projects with the UTC's employer partners in real working environments where they can apply their technical skills and creative thinking.
- All students take part in extracurricular activities linked to the technical specialisms, or in other areas such as sport, art or drama.

Several UTCs have specialisms in digital technology.

# Key Principles of a Digital Centre of Excellence

Understanding the potential uses of every space in the new school will determine how successful the new Digital Centre of Excellence is. We have reviewed the floor plans and asked a number of questions/offered suggestions about activities in each space. In doing so we aim to challenge those who might think a standard classrooms or a Library, for example, has a limited set of uses. We hope that this will be a useful starting point for further conversations within the school community.

Once the uses of the spaces have been explored, the range of activities they might support will need to be underpinned by appropriate technology. We address how this might best be achieved later in the report.

In the following pages we have suggested a number of overarching principles which consider the purpose of spaces, and have set out how the spaces might be described so that everyone can understand their purpose and uses (for example, for Doing, Collaborating, Discussing and Reflecting). In discussion, there may be other terms that are more appropriate for the Newbattle approach and this slide can be amended as required.

Rather than a prescriptive list, we see the following pages as a way to prompt discussion and develop new ideas.

# Key Principles of a Digital Centre of Excellence

- **Identity :**
  - Showcasing the learning and generating interest and excitement
  - A building which is welcoming but secure, promoting ownership amongst students, staff and community users
  - Giving a clear message about what the building stands for, and what is expected of those who use it
  - Providing a strong message about the importance of education in the local community
  - Promoting enterprise and entrepreneurship in Newbattle
- **Flexibility :**
  - Accommodating a range of different learning activities
  - Furniture that can be moved within or between lessons to transform the learning spaces depending on the activity taking place or the group size
- **Adaptability :**
  - Spaces which can change over time to meet curriculum and timetable demands
  - Adjacencies and layouts which allows the function of a space to be changed to meet subject demands
  - Ability for each learning space to deliver a range of activities and learning experiences to support curriculum delivery

# Key Principles of a Digital Centre of Excellence

- **Variety :**
  - A range of spaces for formal and informal learning and social interaction :
    - large groups to come together for briefings, lectures, training and performances;
    - class based teaching;
    - small group working, meetings and one to one discussion;
    - technology enabled learning
    - and individual work and study for staff and students
- **Skills Development :**
  - Spaces (virtual and real) which enable the development of a variety of skills
  - Specialist spaces which make students feel like 'experts' giving them confidence and furthering their understanding of the subject area
  - Spaces which promote creativity, collaboration and allow for 'real world' experiences such as giving presentations, managing teams, researching material, and managing resources
- **Connectivity and Community :**
  - A shared experience which brings learners together and promotes joint ownership
  - Inviting in the community to use the facilities during and outside normal school hours

# A Digital Centre of Excellence



Doing



## Informal Spaces

Problem Based/Self Directed Learning

**Workshops**  
Simulated/Problem Based/  
Facilitated Collaborative Learning

**Library**  
**Café/Dining**  
**Breakout seating**

**Specialist Workshops**  
**Labs & Studios**  
**ICT Spaces**

Reflecting

Collaborating

**Touch Down**  
Self Directed/Non-facilitated  
Collaborative/Project Based Learning

**Formal**  
Problem Based/Facilitated Collaborative/  
Non-facilitated Collaborative/  
Presentation & Lecture

**Library**  
**Cafe**  
**Breakout Seating**

**Classrooms, Labs,**  
**Workshops,**  
**Studios, Lecture Hall**



Discussing



# Opportunities and Risks

Our core assumption is that this work has to build on what Newbattle Community High School already does well. This is not about change for the sake of it, this is about strengthening the positives and using the catalyst of a new building to develop a set of conversations, relationships and shared aspirations that will benefit all those involved.

However, In any major change management process there are opportunities and risks which, if understood and planned for, can serve as a useful framework for action. Over the next two pages we have set out what these might be. As might be expected, the risks are often the flip side of the opportunities.

We hope that these prompts will support the change management process and act as a useful aide memoire against which to stock take as the project progresses.

# Opportunities

- The ability to set out a clear vision for how the Digital Centre of Excellence will support skills development in the community and enhance teaching and learning in the school
- A dedicated budget to meet CPD, hardware and software requirements
- Bespoke spaces, designed specifically for the activities that will take place in them
- A lead in period between now and Autumn 2018 which provides an opportunity to test ideas and trial new approaches
- Learning from the Newbattle project is captured and used to inform other projects in the authority and more widely

# Risks

- The vision is not clearly articulated and the community, staff and students do not fully understand the role and purpose of the Centre of Excellence
- Resources are not spent on the right things at the right time. Staff are not fully prepared for their new environment or do not see the benefit of new approaches
- Spaces do not have a clear purpose and users are not aware of how to behave in them, or do not appreciate the full potential of what they can offer
- Too much change, too quickly can de-stabilise any organisation. There is no clear change management plan
- There is no clear Post Occupancy Evaluation plan and the learning is lost or not fully interrogated

# Review of Building Plans

In the appendix attached 'Newbattle – Review of building plans', the Newbattle design plans have been reviewed with an eye to spaces that can be ICT rich and 'agile' learning environments.

The presentation aims to:

- Identifying agile spaces;
- Question how they might be used to support the Newbattle vision;
- Showcase good practice from the UK and elsewhere;
- Provide images of effective spaces enhanced by technology; and
- Identify gaps and additional opportunities

# What type of technology will be required?

Newbattle aims to deliver a Digital Centre of Excellence for all staff and students, placing a high value on exploiting appropriate technology to impact on teaching and learning, including presentation technologies, staff and student devices, Office365 and a range of suitable curriculum software. Above all else, the ICT solution at Newbattle school will be build on robust and reliable infrastructure and provide a safe and engaging learning environment for staff, students and the community. Key features will include :

- Robust infrastructure
- Robust Wi-Fi (inside and outside in learning areas)
- Devices for staff and students
- Administrative technologies
- Presentation technologies
- Generic software (e.g. Office 365 and SIMS)
- Specialist software
- Range of peripheral devices
- Follow me printing

# What type of technology will be required?

Newbattle aims to move over time from a 1:20 (device:student) ratio towards a 1:2, 1:1 ratio. Options available to the school are purchasing devices, leasing devices, eventual ownership of devices (Parent contribution) or Bring Your Own Device (BYOD)

BYOD means spending less on devices but more on support. BYOD will have implications for staff and learner support. Learners (and staff for that matter) may not realise the importance of e-safety and security until they have a problem that impinges upon their learning.

Mobile devices come in many differing forms, resulting in interoperability and other technical and cost issues which need to be addressed if BYOD is to be adopted. The schools policy and service level documents will also need to be specific to BYOD and reviewed regularly against practice and expert guidance.

With BYOD guidance should be provided on, amongst others,:

- Password protection
- Anti-virus protection and data loss prevention
- Mobile device management to wipe personal/sensitive data in the case of the device being lost/stolen
- Backups and cloud storage

# Managing Change

We know that there is a great deal of preparation which goes into planning and delivering a new school building and that the focus of the project is, inevitably, on the day the new build opens. However, experience also tells us that planning through and beyond that date has huge benefits.

A 3-5 year change management plan will, for example, take account of early issues with the building and technology so that they can be understood and addressed. This means users do not become despondent about snags but instead see them as a part of the learning process. It can also allow for holding some of the budget back to fill gaps once the systems are up and running, or to pay for further CPD should it be required. Any Centre for Excellence will need to be constantly evolving and changing to match the best of what is available and seeing this as an on-going process is useful from the outset.

A long term plan also reinforces the idea that, when developing a strategy and approach to embedding ICT, the main focus is not on specific tools or equipment but on what the technology will do to support the successful delivery of learning. Having an evaluation plan in place keeps the focus on how the technology is performing and what impact it is having.

On the next page we have added an example of a 3 year plan by way of illustration. We would be happy to provide templates and further examples if that would be useful.

# 3 year ICT plan - example of section

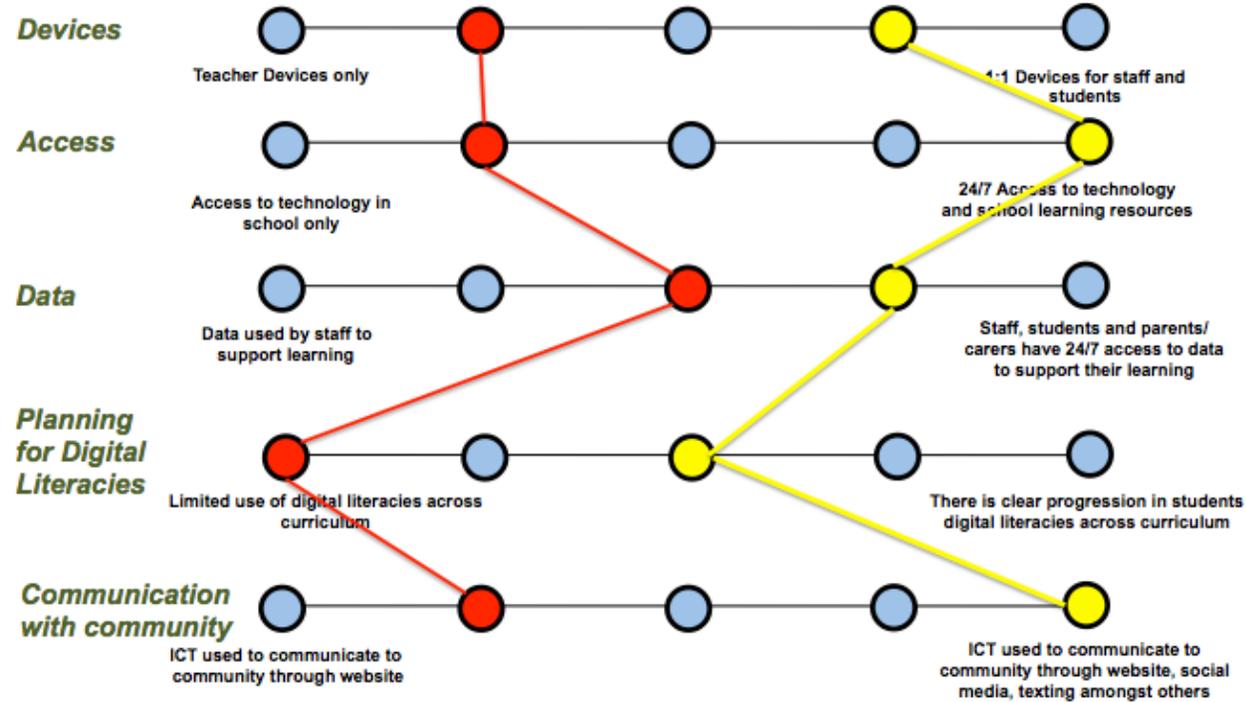
Theme	Section	Year 1 Autumn 2016	Year 1 Spring 2017	Year 1 Summer 2017	Year 2 2017-2018	Year 3 2018-2019
Leadership, Vision and Strategy	Educational Technology represented in the aims of the school	ICT Vision and Design Brief completed for new school -Hannah Jones (HJ) completing draft.	Images on the school website are added to reflect the schools technology investment. E-Safety policy published on website. Written by Richard Clement (RC).	The school policy for the use of technology in the school is published on the school website. Website Audit.	Office365 in place to develop learning & communication beyond school to further engage parents/carers. That the school includes a reference to the role of technology in its review of the school overall aims.	<b>NEW BUILD</b> That new build portrays an image of a vibrant technology rich learning environment - where technology is used effectively by teachers and students to support learning and engage the community.
	Future vision for the role of technology in the development of the school	Department heads and identified staff visit other schools to see best practice - Richard Clement (RC) organising. Discussions with all stakeholders, including PrimarySchools Cluster and Cardiff and Vale College.	Digital Champions (staff and student)s visit BETT - HJ and RC organising. Role of Digital Champions developed.	Expansion of staff Digital Champion - self application to join- include leadership. Develop relationships with technical partners to test and trial innovative software or hardware e.g. Discovery Education (multimedia), or local companies. <i>(good position to get good relationship with industry as moving into new build and on a journey of progress).</i>	Appointment of new Digital Champions (Year 7 and replacement of any as required). Expansion of staff Digital Champions. Leadership, Digital Champions (staff and student) attend BETT or other ICT/Learning Technology conferences.	School applies for ICT mark assessment
	Leadership roles for technology (including Governors)	Identify staff and student Digital Champions (Innes Roberts identifying). Potential Governor for ICT identified. A clear overview diagram within the technology policy document is created outlining technology roles and responsibilities (HJ draft).	Key teachers in place as teacher Digital Champions. Students in place as Digital Champions. Governor for ICT in place. Heads of Department (English and potentially PE) on board with ICT vision and testing and trialling ideas. RJ and HJ to put programme of support inplace - and training/professional development opportunities. See staff professional development below.	Leadership person with responsibility for ICT in place.	Leadership of ICT reviewed, including roles and responsibilities, prior to moving into new build.	
	Role of the technology lead <i>(Senior leadership or ICT Curriculum lead)</i>	ICT Curriculum Lead supported by LA (RC).	ICT Curriculum Lead supported by LA (RC) and potentially Keith from Radyr.	Leadership person with responsibility for ICT in place.	Professional development program put in place to develop the technology lead role.	
	Strategic budgeting	Consideration of long term sustainability with ICT in ICT vision and brief for new school. (Discussions with College and LA re equipment and software for new build) - All. Pull down some ICT funds from new build to begin change management process. Input into design and ICT requirements for new build. (RJ liaising with Corporate IT also).	3-year strategic plan which has identified costings- including professional development.(HJ and RC support and work with Sion Lewis (SL).	Review ICT plans for new build.	Review ICT plans for new build.	
	Provision for	Current infrastructure/technical issues being addressed by LA (RC organised) - issue re connectivity. Also all presentation technologies audit - to see remaining lifespan. Decision taken to 'pull down' some money from new	Instillation of presentation technologies (Draw down funding from new build) and any other specified equipment (to be decided). Professional development opportunities/training	Professional development/training programme in place	School monitors levels of effectiveness of technical support - to identify what needs are before adding capacity to team. Additional	Professional development/training programme in

# Managing Change

The scale of the change management required to successfully implement the ICT vision and achieve the intended benefits at Newbattle is not to be underestimated. An extensive range of professional development opportunities and training in ICT, both online and face-to-face, will need to be available to all school staff so that they become confident users of ICT and are equipped with the skills to be creative in delivering subject material in new and exciting ways.

To plan for the change required to achieve Newbattle's vision for ICT we would suggest there should be a process in place to:

- Review and audit the current use of ICT by leadership, staff and students at Newbattle; and
- Identify the intended outcomes of various aspects of the schools ICT vision e.g. learning and teaching with ICT, e-Safety and safeguarding, use of data etc.



The ICT Self Review Framework or similar simpler benchmarking and planning models (as shown in the diagram here), could be used to identify strengths to be built on, areas for development.

(Hannah has some bespoke reviews that can be used if required)

# Managing Change

As with any school 'staff and students becoming confident users of ICT' will be one of several school priorities and as such the change management journey for Newbattle to become a Digital Centre of Excellence will take place over several years.

As part of the preparation for the successful implementation of its ICT vision Newbattle will develop capacity at all levels through appropriate ICT training and professional development programmes. Various 'communities of practice' will be exploited and nurtured at the school, for example staff and student 'Digital Leaders' will play an important role in successfully achieving the Newbattle ICT vision.

There will be clear process of testing and trialling of new devices and software for learning and scaling up where appropriate. Staff and student Digital Leaders in addition to Heads of Department will be involved in the testing and trialling of any new technology.

All staff/teachers will require basic training on all new hardware and software. Where this is generic software that is used often e.g. interactive display technologies, learning platforms or Office 365 use the training should be substantial and on-going to ensure the value of the technology is realised.

Together the leadership at Newbattle, staff and student Digital Leaders, targeted training and professional development, a range of multi-media and social media will support the continuous up skilling of staff and enable the sharing of best practice in relation to ICT for school improvement.

# Articulating the Vision

We hope that the tools and ideas in this report help Newbattle develop and explain how the new building will support the Digital Centre of Excellence.

We know that there is still much to do ahead of the new building opening and have seen examples in other schools of ‘test spaces’ being developed to allow staff, students and the wider community to experience what the new spaces will be like. If an area can be identified – usually an existing classroom or specialist space – then ICT and FFE can be tried out before it is purchased, CPD can be delivered, and the school is able to showcase how the new learning environments might look and feel to maintain enthusiasm through the build process.

We understand that some users will be skeptical or possibly worried about what change will mean for them. Communicating regularly about what is happening, being clear about how change will be managed and everyone brought along in the process, and having open discussions about what the new facilities will be like and how they will be used, is an important part of managing everyone into the new build.

Above all, having a clear, concise message about the benefits of what is planned ensures there is consistency about how everyone explains the changes.

# Conclusions

The Digital Centre of Excellence at Newbattle Community High School is an exciting project and we have been delighted to learn more about what is planned and to offer some ideas and advice.

Above all, we believe that a school is not a building but is a community of people. The spaces, technology and equipment in the new school will not bring about change alone. Rather this is a fantastic opportunity for school to think about how best the the capital investment can enhance and support the vision, culture, ethos and relationships that already exist.