



**Making more of PDF: how to make
and use inclusive digital learning
resources for computers and tablets**

ICT and Inclusion 2013

One to One technology



- “One-to-one computing facilitates teaching and learning by offering every student independent computing power and Internet access both inside and outside of the classroom, 24/7.”

Center for Digital Education, 2008

Bring Your Own Technology (BYOT)



- 22. Ensuring that young people have access to Glow Plus when and where they need it will be critical to teachers' decisions to use it in their teaching. While part of this can be addressed through the provision of devices by schools, many young people will have their own smartphones, laptops and tablets; outwith the classroom, young people and teachers are accustomed to using such devices all the time to find out new information, and share with their friends. Harnessing this through a sensible approach to “**bringing your own technology**” will be important, in the current public financial climate, to ensuring Glow can be accessed appropriately.

Personal ownership of technology



1. Use of tablet devices such as the iPad was found to facilitate the achievement of many of the core elements required within the Curriculum for Excellence framework and could be further developed in order to achieve these aspirations.
2. The adoption of a personalised device such as an iPad significantly transforms access to and use of technology inside the classroom with many attendant benefits:
 - Many teachers noted that ubiquitous access to the Internet and other knowledge tools associated with the iPad altered the dynamics of their classroom and enabled a wider range of learning activities to routinely occur than had been possible previously.
 - The device also encouraged many teachers to explore alternative activities and forms of assessment for learning.

Personal ownership of technology



3. Personal 'ownership' of the device is seen as the single most important factor for successful use of this technology:

This is seen as the critical element:

- in increasing student levels of motivation, interest and engagement;
- in promoting greater student autonomy and self-efficacy;
- in encouraging students to take more responsibility for their own learning.

Evidence suggests that greater personal ownership of the iPad may also contribute to more interdisciplinary activity.

'One to one' mobile technologies: not new for ASN

- AAC (Augmentative and Alternative Communication) voice output devices
- Writing tools (portable word processors, netbooks, laptops, tablets)
- Reading tools (portable computers, screen readers, Braille displays etc.)



Potential benefits of new 1:1 mobile devices for learners with ASN



- New mobile devices are more practical than older tech
- New mobile devices are cooler



"I think that there has been a real improvement in motivation for many of my pupils, several of whom have support for learning needs. The 1-1 aspect has meant that the children have really personalised their iPads and made them work the way they want."

They have become important tools for learning in my class with many children surprising me on a daily basis with the types of work they come up with."

Teacher, Bellshill Academy

Potential benefits of new 1:1 mobile devices for learners with ASN



- Less stigma if all pupils use technology
- Less difference: more inclusion
- Greater use of digital text, audio and media suits learners who struggle physically, visually or with traditional print

"That was one thing I was really impressed by – how focused they were on their work – recording little sounds to go into, taking photos of their friends."

Class Teacher,
Kingswell Primary

Potential benefits of new 1:1 mobile devices for learners with ASN



Low cost: Democratisation of AAC and AT



iPad & Proloquo2Go: £450



Tobii C8:
£4,840

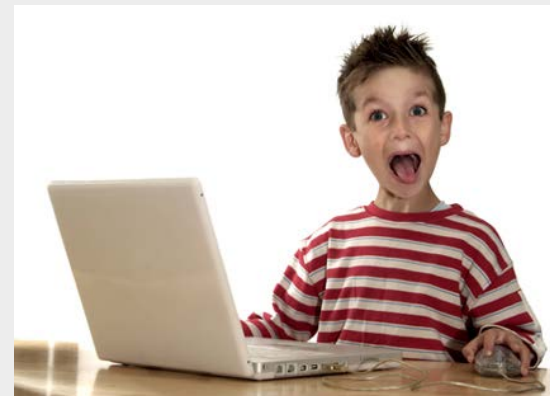
Potential benefits of new 1:1 mobile devices for learners with ASN



- Staff are more likely to create and use digital learning resources if they are doing it for everyone
- Staff are more likely to have necessary ICT and pedagogical skills because they are using ICT more often

"I'm enjoying never having to photocopy extra sheets for when children have lost theirs and not having to get everyone to write down details of each week's reading - everything is easily available (at school or at home) on the wikispace."

Class Teacher, Sciennes Primary



Pedagogical and practical challenges



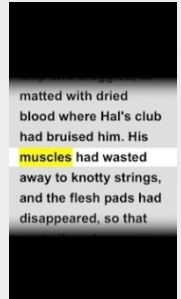
- How do we manage a class where learners have a bunch of laptops, netbooks, iPads, tablets, Androids, smartphones etc etc?
- How to send, receive and mark digital assignments and homework?

PDF

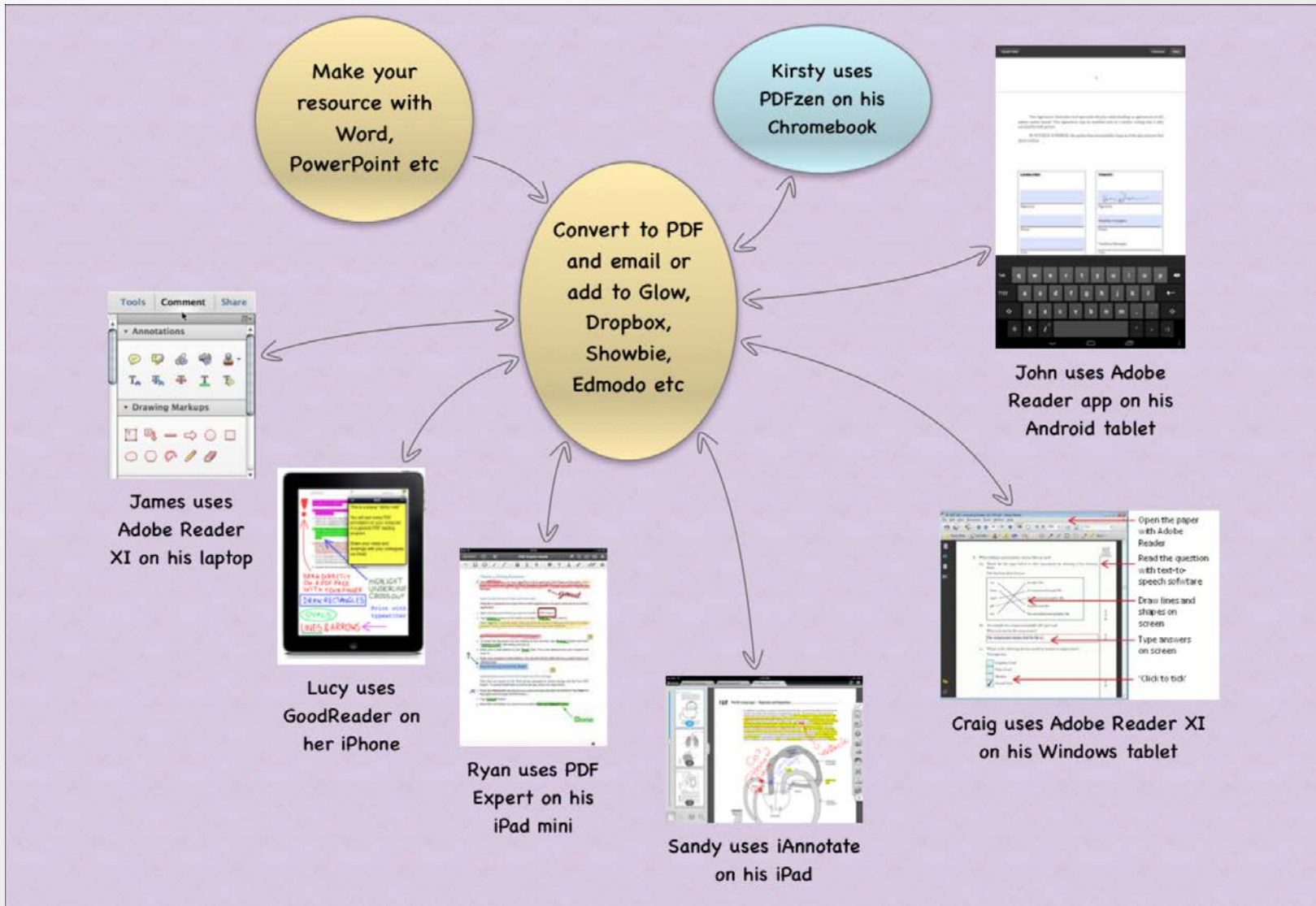
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- SQA Digital Question Papers are PDF
- Use Acrobat Pro to create PDFs with answer boxes

Game changers!

1. Adobe Reader XI can add comments to **any** PDF
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Make PDF » send to class » learners complete » send back » you mark it » return to student





How do I draw in answer boxes?

- You still need Acrobat Professional to draw in answer boxes and to insert/delete pages and otherwise work on the file.
- Adobe Pro costs about £60 per licence from:
 - Education Scotland
[http://www.educationscotland.gov.uk/about/ordereducati
onresources/adobe/index.asp](http://www.educationscotland.gov.uk/about/ordereducati
onresources/adobe/index.asp)
 - Academia
<http://www.academia.co.uk/school/adobe/default.aspx>

Answer boxes with Acrobat Pro

