Reframing challenges for success:
Designing for digital implementations

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Understanding publisher challenges and efforts
But what is going wrong?
Top 10 barriers to digital implementation for Schools
Frameworks for best practice digital design and implementations
Safeguarding for future development
Examples
Fact is:
Despite our best intentions, there are still major challenges with the implementation and adoption of digital resources
We Know:

- Traditional print design cycles are slow
- Print workflows ≠ lead to best digital materials
- Selling processes are different
- Recouping on investments is hard
- Publisher led content is no longer “King”
Print Prevails in Schools
Sales of instructional materials for pre-K through 12th grade

1 - Numbers include spending on digital course programs, software, games and other supplemental digital material. They do not include expenditures for hardware like computers or whiteboards.
Source: Simba Information
We Know:

- No one size fits all digitization strategy
- Tightrope between current possibilities and future design
- Constraints of infrastructure: strategy and hardware
- Designing for a digital dichotomy
- Best of intentions
So what’s really happening?

“Studies have found that even if educators are well-prepared by their pre-service education, they are still likely to face significant barriers to integrate ICT; including curricular constraints, constraints around access, lack of technical support and preparation time”

- Chen et al. 2014
“Not all staff is on the same page with education technology, some staff members even fear it”.

-Secondary school, CDSC de Nouvel-Ontario
“Education is the area of greatest resistance to innovation”.

_Germann and Sasse, 1997_
Implementation Feedback
1. Insufficient Budgetary Planning

- Improper licensing
- No planning for support or upgrade costs
- Not enough budget for training
2. Failure to Secure Senior-level Buy In and Support

- ensuring sufficient resources
- Making the project a priority
- Establishing the timeline and degree of seriousness
3. Limited Training

“ The implementation of digital resources requires large-scale Professional development”

– Stables 1997; Compton & Jones 1998; Rennie 2001
4. Inadequate Testing

- Testing in real world conditions
- Detecting unknown incompatibilities
- Disproving assumptions
5. Failure to Involve Faculty

- User buy-in is essential
- Can tie into training
- Listening to their concerns
6. Interoperability

“Competing platforms are a major hurdle. Right now I have too many separate ways to access our materials”

– Julie Wales: Rockledge FL.
7. Insufficient Support

- Users need to know who their right contact is
- Problems need to be covered in a timely manner
- Local support is always preferred
8. Poor Long Term Planning

- Not planning for new users
- Re-ordering/License durations
- Maintaining programmes
9. Learning Curve

★ Productive use of new resources take time to learn
★ Time is scarce or training time unpaid
10. Educational Value

“It is necessary to consider the gains and merits that each type of ICT might have for education in terms of the potential impact on learning, performance and motivation of both students and teachers, as well as on school-wide management and system-wide organization”

– UNESCO Institute of Statistics
Top 10 implementation challenges

1. Budgetary planning
2. Senior-level buy-in
3. Limited training
4. Inadequate testing
5. Failure to involve faculty
6. Interoperability
7. Insufficient support
8. No long term planning
9. The learning curve
10. Educational Value
“Teachers feel that change brings about more problems than solutions”
– Sade & Coll 2003

- Shared Vision
- Empowered Leaders
- Implementation Planning
- Consistent and Adequate Funding
- Equitable Access
- Skilled Personnel
- Ongoing Professional Learning
- Technical Support
- Curriculum Framework
- Student-Centered Learning
- Assessment and Evaluation
- Engaged Communities
- Support Policies
- Supportive External Context
Designing for Success
Designing away from old business models towards better product adoptions

“The more it feels unique to the school, to the teacher, the more it belongs to their students, their teaching style, to them.”

- Corinne Hertel, ISZL, Switzerland
1. Budgetary Planning

Improper licensing

No planning for support or upgrade costs

Not enough budget for training

Consider:
★ different pricing models to support smaller, incremental projects
★ repeat pricing instead of lump pricing
★ Ensuring that all costs are clearly communicated
★ reminders for further years
2. Securing Senior-level Buy In and Support

- Ensuring sufficient resources
- Making the project a priority
- Establishing the timeline and degree of seriousness

★ Implementation checklists including:
  - Who should be addressed
  - Suggested meeting topics
★ Ensure senior decision makers are invited to meetings as early as possible
3. Training & Professional Development

“The implementation of digital resources requires large-scale professional development”

– Stables 1997; Compton & Jones 1998; Rennie 2001

Consider:
★ Credits towards official training
★ Partnering with another training association
★ Partnering with local providers who can be official training partners and even secondary sales agents (e.g. software/device sales)
★ Training that is more about productivity using the product than just an introduction to the product
4. Validation Testing

testing in real world conditions

Detecting unknown incompatibilities

Disproving assumptions

★ Consider providing your customers with a ‘cheat sheet’ of potential issues they need to be aware of and solutions you can offer.
★ Arm your customers (teachers and ICT coordinators) with the knowledge they need to be the local expert and trouble shooter for initial implementation challenges
5. Involving Faculty

User buy-in is essential. Can tie into training.

Consider:
- Open information nights/online sessions
- Sheets that can be downloaded
- A number of free account access codes with feedback sheets
- Local ‘meetup’ groups
- Dedicated ‘implementation roles’ that can be discussed and filled in each school
6. Interoperability

“Competing platforms are a major hurdle. Right now I have too many separate ways to access our materials”

– Julie Wales: Rockledge FL.

⭐ Integrating locally required systems (e.g. Single Sign On)
⭐ Working with third party APIs to boost your products capabilities
⭐ Partnering with larger distributing providers or device makers (especially safeguarding for BYOD implementations)
7. Support

- Users need to know who their right contact is.
- Problems need to be covered in a timely manner.
- Local support

- ‘Local’ contacts can be key – Educators and Schools need to know they can access help that understands them, their markets and their needs.
- Consider also an easy series of best ‘how-to’ videos or FAQ hints for trouble-shooting.
8. Long Term Planning

Not planning for new users

- Training reminders
- Support at the start of each renewal or onboarding period (reminder emails/visits)
- Make this part of your support and involvement of faculty and senior decision makers
- Don’t rush a product just to have something digitally

Re-ordering/License durations

Should be part of risk assessment
9. Learning Curve

Productive use of new resources take time to learn
Time is scarce or training time unpaid

Consider:

- An educator’s support area where tips can be shared and where short excerpts of official trainer videos can be stored.
- An easy online walk through (either listed steps or pictures)
- Providing different levels of appropriate learning support (from complete beginner through to trained user)
10. Educational Value

“...It is necessary to consider the gains and merits that each type of ICT might have for education in terms of the potential impact on learning, performance and motivation of both students and teachers, as well as on school-wide management and system-wide organization”

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★ Design for the digital capabilities, not just to have a digital product
★ Align with curricula and teaching needs
★ ‘Edutainment’ software may lack pedagogical value and rarely helps educators reach learning goals
A closer look
Idaho

★ LMS software
★ 61 Million
★ state wide adoption

“only a ‘limited number’ of districts ever received training, funding, professional development, and technical support for the software”

The Barriers

Long Term Planning • Training and Infrastructure
Educational Value • Content unavailable
Interoperability • Materials couldn’t be shared and communication impossible
Amplify – Guilford County

★ Bundled content
★ Nominated devices
★ 3 (14.6) Million
★ 15 (19) 000 devices

“The school handed out all the tablets on the same day and found out that it didn’t have enough Internet capability. The tablets kept breaking. Their screens were so fragile that they could shatter if they tipped over screen side-down on a desktop”.

The Barriers

- Infrastructure internet
- A later addition
- Faulty devices in market
- Partner choice and consequences
- Rushed implementation (paper solution)
LA District (The perfect storm)

- 700,000 iPads
- 1.3 billion
- Pearson content

“A year after the purchase, the software on L.A. Unified iPads still doesn’t include many of the simulations, games and interactive tools promised”

The Barriers

Budgetary Planning
- 47 million budget - 1.3 billion deal

Long Term Planning
- Training and Infrastructure
- Rush creation leading to lost time
- Content had multiple errors
- Teacher training excessive and costly
- Content wasn’t finished for trialing
Conclusions
Thank you

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