Business case

MyPearson

October 2011

Version 1

Author: Edward Taaffe

Date	Change	Author	Version
15/12/2011	First draft - Intro	E Taaffe	0.1
16/12/2011	Tidy up and context diagram	E Taaffe	0.1
21/12/2011	Begin summaries	E Taaffe	0.1

1. Background

1.1. Politically and economically, we are in an era of low economic activity and weak demand where capital is cheap and costs are under constant pressure. The education field is predominantly either government funded or cushioned by a traditional resistance to recession. Reduction of government support in the UK has driven an increase in students seeking vocational training options and exposing the gaps left by a previous migration from Polytechnics to Universities. Students are exploring all alternatives to expensive UK university fees.

Privatisation of the examination functions seems likely to be followed by even further privatisation creating considerable new and extended opportunities and the retreat of the state seems likely to generate yet more Business to consumer opportunities.

Pearson has published strong returns year on year and made strategic acquisitions taking advantage of opportunities to acquire awarding bodies and build a reputation in this area. Pearson's strong position in the area of awarding bodies opens new opportunities to harness the synergies between publishing textbooks and online materials for both teacher and learner while holding the key card in terms of providing the examinations and awards.

1.2. The Pearson online presence is poor by any standards lacking in usability, coherent presentation of information, or indeed any obvious joined-up marketing strategy, but it is especially poor in that it fails to even attract search visits for highly relevant key words and a search for Pearson does not even produce a site map. The top natural search entry "Pearson.com" took me to a piece on "education in Brazil".

A key Pearson website has a URL that reads like suprcalafragailistic….

No reasonable attempt seems to be currently being made to either engage with the users, or to give them a personalised experience, but they are segregated by business unit even within Pearson companies, let lone recent acquisitions.

A recent attempt at creating a single view of the Pearson sites "Uk.pearson.com" makes a start on this problem, but it shows up nowhere on searches therefore having little impact other than as a statement of intent.

The science publishers believe that they are losing out to others such as AQA who offer more coherence and even the traditionally strong mathematics publishers have lost ground to agile start-ups.

1.3. Hacking and IP theft have become gradually more pervasive crimes and it is no longer considered theft by a growing majority of young people and many of their peers.

1.4. There are still arbitrage opportunities based on price differentials.

1.5. Particularly in the area of education and personal data there is considerable paranoia in the public domain over risks of losing personal data. It is critical to do everything possible to protect sensitive data and be seen to be responsible in its handling.

1.6. Hand-held devices and smartphones are growing rapidly in popularity and changing the face of reading, learning and content access. They demand more flexibility in license models than their counterpart and they are increasingly in demand from individuals purchasing on their own behalf, or for a child as well as from traditional customers demanding more flexibility of time and place in their consumption of the products. This won't go away and will become an ever more important and key feature of future offerings.

1.7. Low entry cost to the e-Publishing market has meant that a series of start-ups have been able to grow rapidly from nothing and win substantial market share. This is going to be an increasing problem for all digital publishers.

1.8. Competition between awarding bodies is fierce and there is a continued media attention focused on private companies supplying services to education. Reputation and efficacy collateral are key elements of the communications toolbox.

1.9. Technically the publishing field is at a hazardous juncture faced with changing expectations, new delivery models and continuous disruptive activity from small and large players alike.

Despite being an undisputed world leader, in 2007 Britannica finally admitted defeat with its online offering having failed to make the paid business model pay and then failed to manage costs sufficiently on the free

2. Using the web more effectively to understand buying cycles and to support offline and online decision making and purchasing.
3. Leveraging social media to attract new prospects and to grow the reputation of individual products through recommendation by happy customers.
4. Leveraging the Pearson Global brand to support all offerings across the piece.
5. Strengthening existing relationships through personalised online services and increasingly personalised and targeted products.
6. Low cost highly targeted innovation within safe boundaries combined with the ability to keep costs down.
7. Entering the Business to consumer market with offerings that can leverage existing relationships.
8. Developing market leading capabilities in the hand-held device markets.
9. Learning to mix offline and online products effectively.
10. Integrating acquisitions effectively and leveraging the added value in their customers, products and insights.

Introduction

The MyPearson programme pulls together a number of customer focused business initiatives developed by the LTG business partners working with publishers to deliver on the four elements of the online strategy namely: Web strategy, Personalisation, Online sales and Smart data.
.
These Online strategies are steered by the published goals and strategies of Pearson plus wide consultation carried out within the publisher community, thus assuring that all of our efforts are focused on the key corporate strategies and yet cognizant of the current operating environment and competitive landscape.

The LTG technical strategy "PearsonGrid" underpins these initiatives with a technology strategy designed to deliver them in a more cost effective and technically robust way while at the same time setting LTG up to continue delivering effectively for the foreseeable future.

The business goals for 2011/2012

1. Pearson brand in UK to be represented in a consistent way and the customer to have a 360 degree view of Pearson via the new hubs initiative.
2. Tracking individual learners and personalising their user experience thus helping teachers to teach and learners to learn.

3. Maintaining online products/services more effectively through use of business information

4. Flexible subscription-based sales models driving growth while protecting existing revenue streams.

5. Targeting Mobile/multi-device markets both with our websites and consumption of our products and services

6. Building our ability to sell direct to the consumer with both digital and offline offerings (B2C)

7. Integration of products and services to maximise opportunities through offering better and more comprehensive services to every Pearson online customer and more customers to every online product and service.

8. "Smart data" driving better business decisions, better new product development and more effective marketing.
   a. Data capture for customer and market intelligence
   b. Testing and qualitative work to support and understand quantitative responses.
   c. POS and customer journey based opportunity identification that is individually and contextually right.

The business initiatives in planning for 2012 organised under four strategies.

In pursuit of these identified business goals, we have four key online strategies:
1. Online selling
   This strategy will resolve a number of pressing problems in the eCommerce arena including:
   a. Creation of a single product catalogue.
   b. Common meta-data to enable powerful search functionality.
   c. Option to shop "by department[1]" and make "in app[2]" purchases.
   d. Behavioural targeting to exploit cross sell/up sell opportunities.
   e. Digital and subscription sales capability to open new markets.
   f. Online customer support.
   g. Addition of B2C sales capability.

The Online Selling strategy will prevent loss of customers when licenses expire, it will provide an important enabling platform for a number of planned B2C initiatives aimed to grow revenue and it will reduce cart abandonment and promote sales direct from Pearson sites and services and even eBooks thus increasing revenue opportunities.

2. Personalisation

This strategy is about providing customers with a view of our products and services that is based on their focus and interests rather than our internal structures, or relying entirely on an abstract notion like their role when they originally registered.

   a. A user will be able to "sign-in" to MyPearson from any Pearson website and will see a personalised "hub" that is driven by his/her profile (Passport)
   b. Any login used by the customer will become a "**Single-Sign on"** enabling him/her to access all Pearson products and services (and also 3rd party services like SIMS, GoogleDocs etc.)
   c. The Passport will be continually updated as he/she makes choices on our websites, sits mock exams, downloads free resources, or offers further information about likes, needs, preferences and attitudes.
   d. The Passport will continue with the customer through their lifelong relationship with Pearson even as they progress through their education, reading, assignments, parenthood, teaching or any other roles they adapt at different times in their lives either as individuals, members of institutions, or both and will have something to offer teachers, parents, students, examiners and many other roles.

Through Publisher driven initiatives such as "Hubs[3]" and beginning with "Secondary Hub", the personalisation strategy will create opportunities to sell current products to new audiences and to introduce new products to well targeted new market segments.

3. Web strategy

The revived web strategy will utilise the Pearson grid components such as Personalisation and Passport combined with the new branding strategy to:
   a. Present Pearson in the UK as the champion for learning
   b. Personalise the browsing experience
   c. Increase social / web 2.0 customer interaction
   d. Adopt a single content management system to share assets
   e. Integrate content management with business processes through making it accessible and usable to non technical people such as marketers.
   f. Optimise content for mobile
   g. Introduce Multivariate testing capabilities
   h. Rationalise URL strategy around Pearson.com/uk
      (launched in May 2011)
   i. Provide a Parametric search capability
   j. Adapt and apply an SEO keyword strategy to significantly increase organic traffic
   k. Adapt a template approach to content types to promote consistency and reduce costs and time to market.

Web strategy will drive a steady flow of new customers to Pearson sites, drive new sales and defend against losses via the move to mobile devices and enable better management of content that reduces cost and improves the user experience.

4. Smarter data

The smarter data initiative will gradually build a capability to leverage data as a means to underpin product strategy and online selling strategy by answering questions such as:
   a. how our customers are using our products and services
   b. how effective our products are for learning and teaching

    e. how our customers like to complete their research and make buying decisions and what we need to provide them with at what juncture and in what format in order to close both online and offline sales

    f. efficacy reports that provide reliable decision making tools

Smarter data will reduce the cost of bringing new products to market through providing key transactional information and supporting it with the ability to test cheaply and react quickly thus grabbing opportunities and quickly dropping bad ideas.

In addition it will provide access to key content anywhere on a Pearson site in the context of the user and the user's current needs, rather than waiting till they go to the specific site. This will improve the user experience, create value and ultimately generate revenue.

The Pearson Grid strategy in simple terms

The Pearson Grid is an LTG initiative to save on the costs of the BAU projects currently in planning and continue to deliver cost savings in the medium to long term, while at the same time adding substantially to Pearson's online capabilities going forward.

The PearsonGrid is an LTG initiative to:

a). Reduce the cost to the business of the services LTG provides not just for the BAU projects currently on the agenda for 2012/2013, but for all projects delivered by LTG going forward.

b). Substantially upgrade Pearson's online capabilities in order to catch up with more agile competitors and then assume the position of leader in Online and digital publishing in the UK Education space.

c). Provide a reliable path for quickly integrating acquisitions into the Pearson Online Family to integrate their products and customers with the greater Pearson ecosystem.

Utilities for Pearson UK Education Digital Business
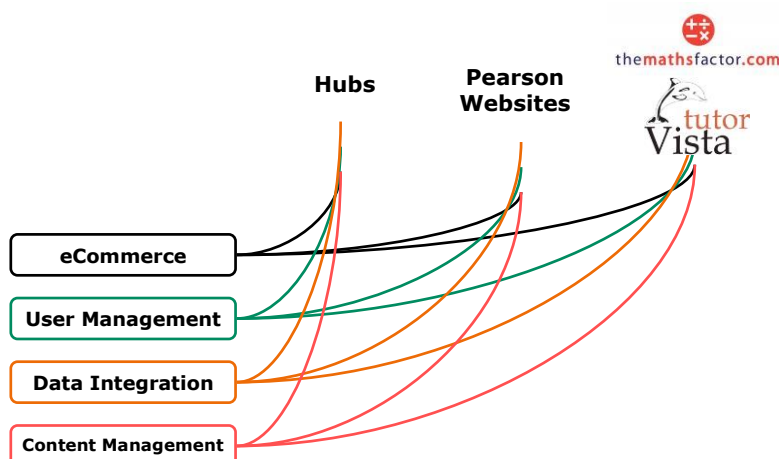
PEARSON

Each year, Pearson UK Ed spends substantial budgets on digital publishing initiatives that involve building new Learning Platforms and websites.

All of these new systems involve building yet another user management, registration and sign-in system

All of them need smart data tools to provide the initial intelligence, ongoing management support information and testing facilities that will take them from "Problem child[4]" to "Star" or reveal a "Lame duck" before too much cash has been wasted.

In reality the ability to provide this management information has been beyond the scope and budget of individual projects resulting in weak and fragmented information available to product managers and some instances of "good money after bad".
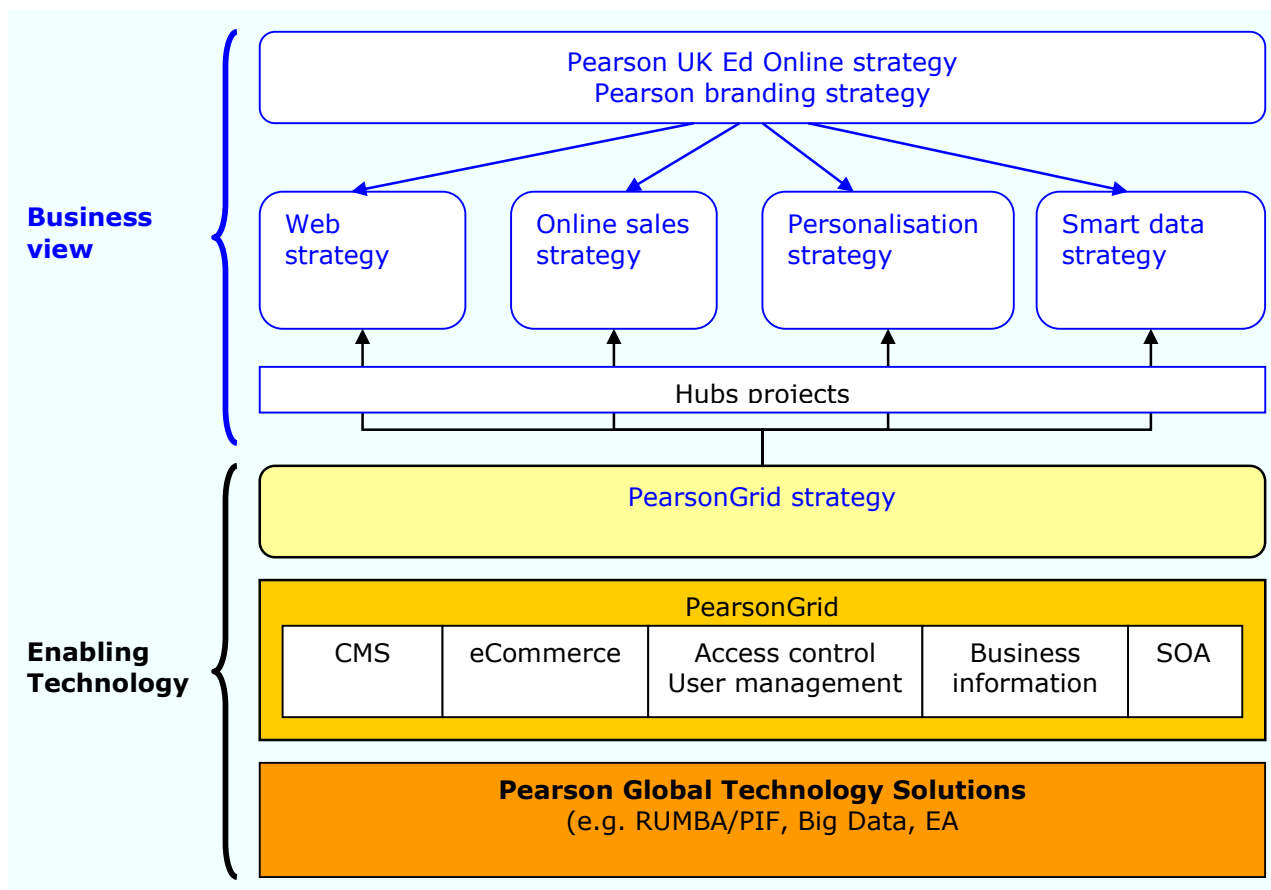
2012/13 example alone.
To provide for the needs of Hubs projects in the course of 2012/2013 following the pattern of previous years will result in three hubs each with substandard platforms that are difficult and expensive to maintain and will cost in the region of £2.8m [5]to deliver.

The PearsonGrid initiative will deliver all of these requirements in the form of high quality, reusable components that will:
- immediately begin to add value to all existing platforms as they integrate via the Hubs project
- reduce the cost of maintaining platforms by 50% annually
- reduce the cost of future platform development by 25% on average
- aid the rapid integration of future acquisitions into the Pearson family reducing the integration bills and delays.
- provide a level of quality, reliability, scalability and features that would not otherwise be possible

PearsonGrid represents an investment that will continue to provide returns year on year for a decade or more. Pearson Grid will be constructed from a combination of COTS products and Pearson Global Technology Solutions like Rumba, Big Data, EA etc.

The proposals represent quick wins with the lowest risk and sustainable benefits that are largely cushioned from market disruption and flash trends.

Business view
- Pearson UK Ed Online strategy
- Pearson branding strategy
  - Web strategy
  - Online sales strategy
  - Personalisation strategy
  - Smart data strategy
- Hubs projects

Enabling Technology
- PearsonGrid strategy
- PearsonGrid
  - CMS
  - eCommerce
  - Access control User management
  - Business information
  - SOA
- **Pearson Global Technology Solutions** (e.g. RUMBA/PIF, Big Data, EA
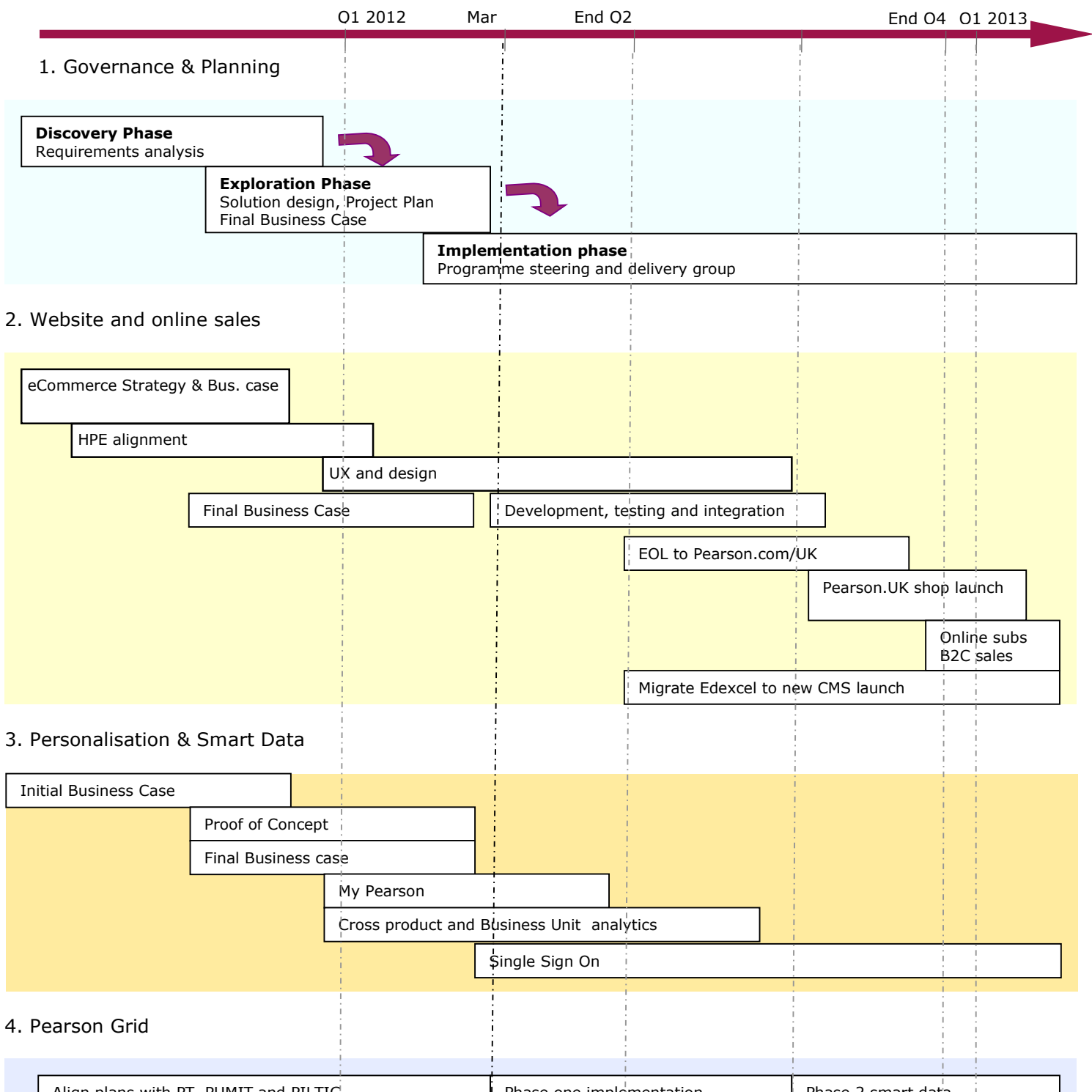
Dependencies

1. All if the online strategies rely on PearsonGrid to make them possible.
2. The PearsonGrid is dependent to some degree on the tools, policies, schema and taxonomies of the Epsilon project to drive the customisation effort in a way that is compatible with the rest of Pearson and to reap the benefits of their expertise and efforts.
3. User profile management, part of the PearsonGrid may rely on the RUMBA project meeting our requirements and timescales if selected in the final decision.
4. User access control UAC, part of the PearsonGrid may rely on the RUMBA project meeting our requirements and timescales.
5. Key business initiatives such as Hubs and in particular Secondary Hubs, which is targeting a first phase release in July 2012, rely on some elements of PearsonGrid for each release and hence the phasing plan takes into account these dependencies.

See Risks for an exploration of the risks attached to these dependencies.

Phasing of delivery

The phasing of PearsonGrid is recommended in a way calculated to deliver revenue returns as early as possible minimising the risks outlined in the risks section.

| | Q1 2012 | Mar | End Q2 | | End Q4 | Q1 2013 |

1. Governance & Planning

Discovery Phase
Requirements analysis

Exploration Phase
Solution design, Project Plan
Final Business Case

Implementation phase
Programme steering and delivery group

2. Website and online sales

eCommerce Strategy & Bus. case

HPE alignment

UX and design

Final Business Case

Development, testing and integration

EOL to Pearson.com/UK

Pearson.UK shop launch

Online subs
B2C sales

Migrate Edexcel to new CMS launch

3. Personalisation & Smart Data

Initial Business Case

Proof of Concept

Final Business case

My Pearson

Cross product and Business Unit analytics

Single Sign On

4. Pearson Grid

Align plans with PT, PUMIT and PILTIG

Phase one implementation

Phase 2 smart data

Summary of the benefits

Tangible benefits

The Online Selling strategy will
1. prevent loss of customers ==when licenses expire== (1)
2. It will provide an important enabling platform for a number of planned B2C initiatives reducing their implementation costs ==by approximately 25%== (2)
3. it will reduce cart abandonment (3)
4. promote sales direct from Pearson sites and services and even eBooks thus increasing revenue opportunities. (4)
5. Through Publisher driven initiatives such as "Hubs[6]" and beginning with "Secondary Hub", the personalisation strategy will create opportunities to sell current products to new audiences (5)

Web strategy will
1. drive a steady flow of new customers to Pearson sites.
    a. drive new sales (6).
2. defend against losses via the move to mobile devices (7).

Smarter data will
1. Reduce the cost of bringing new products to market through providing key transactional information and supporting it with the ability to test cheaply and react quickly thus grabbing opportunities and quickly dropping bad ideas. (8).
2. In addition, it will provide access to key content anywhere on a Pearson site in the context of the user and the user's current needs, rather than waiting till they go to the specific site. This will improve the user experience, create value and ultimately generate revenue.

The PearsonGrid will deliver all of these requirements in the form of high quality, reusable components that will:
1. immediately begin to add value to all existing platforms as they integrate via the Hubs project
2. reduce the cost of maintaining platforms by 50% annually (9).
3. reduce the cost of future platform development by 25% on average (10).
4. aid the rapid integration of future acquisitions into the Pearson family reducing the integration bills and delays. (11).
5. provide a level of quality, reliability, scalability and features that would not otherwise be possible.
6. Enable the four business strategies.

Intangible benefits

The Online Selling strategy will create opportunities to introduce new products to well targeted new market segments.

Web strategy will enable better management of content that reduces cost and improves the user experience.

Smarter data will provide access to key content anywhere on a Pearson site in the context of the user and the user's current needs, rather than waiting till they go to the specific site. This will improve the user experience, create value and ultimately generate revenue.

The PearsonGrid will
1. Provide for all new platforms a level of quality, reliability, scalability and features that would not otherwise be possible.
2. Enable the four business strategies to be implemented.
3. Provide a more consistent maintainable stack to reduce the risk of errors into the future.
4. Provide scalability and performance to support future projects.

Guaranteeing and accelerating the flow of new products and keeping a lid on the cost of doing business will ensure that Pearson retains its market position while increasing revenue in the short term.

A single well maintained and well state of the art facility will counter the risk of a security breach that could cause serious embarrassment.

The cost of doing nothing

Tangible

- Higher cost of maintenance and hosting infrastructure
Currently each platform and website sits on its own unique technical platform designed and built from the ground up and each now absorbs substantial amounts of time in continuous maintenance as well as the extra cost of hosting 8 CMS, 7 eCommerce, unknown number of user databases and UAC systems.
All of this wastage will continue and grow substantially year on year.

- Waste as a result of duplicated systems
The Hubs projects that are currently in planning stage will each require complex UAC systems, complex CMS, eCommerce and Business information systems and in 2012, they ill be duplicated four times unless this initiative is completed to circumvent this wastage that could amount to 3 or 4 million.

- Reduced inventory due to barriers to innovation.

  Lack of a "stack" to build on will continue to increase the cost of all new development by at least 25% while increasing time to market and thus it will hamper the flow of new products reaching the marketplace.

- Losses through theft - especially in the B to C marketplace
Any attempts to sell digital products for use on hand-held devices will lead to substantial theft unless a strategy is developed alongside of the tools to deliver on this.

Less tangible costs

- Losing position to more innovative start-ups.
- Losing out to products with more flexible licensing models.
- Risk of hacking with potential embarrassment and loss of faith.

Business change required to realise the benefits

The changes recommended in this business case represent a substantial change in the way we think about products, projects and especially technology.

1. At a culture level, the key change is that time and capital is set aside just once to build the re-usable services platform known as PearsonGrid and pressure to deliver yet more tactical solutions for 2012 are either met by parallel activity and allowed to continue as a sunk cost, or delayed a few months to be delivered via PearsonGrid.
2. At a technology level it is important that every new project re-uses the platform and builds the innovation on top. There will be exceptions when new functions are needed and a change control process could be in place via one of the technical architecture groups to decide whether to improve the platform, or do a tactical solution for that site, or product.
3. Programmers and architects will need to have the tools and knowhow to utilise SOA effectively and this needs to be built into the project plan.
4. A programme of informing and educating could be engaged in to make the product owners and other customers of technology aware of the capabilities of the new platform and to enthuse them with ideas so

Risks

1. A number of delegate systems offered through Pearson Global Technology Solutions such as EA and "Big Data" are not mature offerings ready to be released. There is a risk that PearsonGrid becomes a kindergarten for these systems and suffers from poor performance or failure, especially if the appropriate level of rigour is not applied in terms of design, testing, implementation and support.
   - A commercial decision needs to be made in terms of what candidate to adapt into PearsonGrid and it should be based on a pragmatic blend of Cost, reliability, ability to deliver on time and ongoing support SLA. It is imperative that the selected candidate meets stringent quality criteria.
   - In order to reduce any risk, we may opt to implement a minimal set of features as a tactical solution in the short term and replace it with the mature system when it is ready
   - We may opt to use a cloud-based option for one year initially giving ample time for the PGTS system to be developed and matured.
2. The Single Sign On element of the PearsonGrid is particularly reliant on a grade A SLA that will include (a) a very highly trained and disciplined support staff able and motivated to move immediately to resolve issues as well as (b) a highly scalable infrastructure able to cope with very substantial peaks around exam time (c) an agreed and monitored security policy to make sure that systems are patched and maintained correctly, passwords are changed regularly and other key security issues such as audit are dealt with reliably.
   - Any supplier whether internal, or external will need to satisfy a requirement in terms of SLA, or alternatively an infrastructure team will need to be set up to do it.

3. The security side of the platforms will be increasing the risk by virtue of the fact that there may be one sign-in system only and therefore more scope to steal or cause damage once access has been achieved.
   - This risk is offset by the opportunity to focus the efforts on creating one very strong security system and can be further mitigated by using a well-established system as a starting point.
4. Testing the security element of the systems is especially tough. In addition, the performance aspect of the systems is critical to the overall strategy.
   - It is imperative to establish a solid risk-based test plan and monitor it closely and to retain an automated regression test that is run every time a change is made and updated to reflect even the smallest changes.
5. Key people such as Business Partners, who have an important role to play in the project, are overworked with BAU projects and in addition there is a level of ongoing confusion between BAU projects requiring these PearsonGrid components and the PearsonGrid project.
   - It is important to make a very clear distinction between the two projects and to accept that if a BAU project has an April deadline and needs a duplicated component, then it will have to do this. There will always be situations like this no matter how long we wait so a clear line should be drawn.

Timescale

The initial phasing plan is only a suggested plan and will be updated when the final business case is released based on detailed designs and costing.

Decision

We request that you make available the following to fund the MyPearson Programme over a period of two years made up of:
£x.y M in 2012 and a further £x.ym in 2013

Please see the detailed cash-flow below

Appendix2 – Cash-flow

COSTS:BENEFITS ANALYSIS + INVESTMENT APPRAISAL							
	Year 0	Year 1	Year 2	Year 3	Year 4	Total	
Costs							
Development/Project						0	
Staff Costs						0	
Equipment Costs						0	
Other						0	
Total Costs	0	0	0	0	0	0	
Benefits							
Tangible							
Staff Savings						0	
Equipment Savings						0	
Buildings Savings						0	
Other						0	
Intangible							
Reference 1						0	
Reference 2						0	
Reference 3						0	
Total Benefits	0	0	0	0	0	0	
Annual Cashflow	0	0	0	0	0		
Cumulated Annual Cashflo	0	0	0	0	0		
Discount Rate (Annual %)	0.06	0.06	0.06	0.06	0.06		
Discount Factor	1.00	0.94	0.89	0.84	0.67		
Discounted Cash Flow (DCF)	0	0	0	0	0		
Cumulated DCF	0	0	0	0	0		
Net Present Value:	0						
Payback							
IRR							

Appendix 1 Basis of costs calculations

1) Loss of customers when licenses expire.
   The number of lost customers in 2011 by the annual subscription minus those retrieved by the call centre by an assumed 80% This will give us the improvement we hope for.
   In addition, we can add a reduction in the cost of the call centre since they will have only 10% or so of the volume of these calls to make.

2) Reducing platform implementation costs by approximately 25%
   The total spent on platforms last year by 25%

3) Reduce cart abandonment.
   I think we had this for eCommerce.

4) Promote sales direct from Pearson sites and services and even eBooks
   This means presenting products on any website or even in an eBook so that the user can simply click to purchase.
   We need an estimate of how many impressions we might be able to deliver and what the conversion rate might be times the average expected revenue

5) Opportunities to sell current products to new audiences.
   The basic principal is that if you increas your "qualified audience" by n% your revenue will increase by the same amount.
   Qualified means in this case "someone with a potential need and the ability to make a buying decision" E.G. A buyer who has previously ordered secondary maths products and also teaches/studies science is a qualified audience.

   We need a stab at how many maths customers also study (Science, a,b,etc) and might reasonably therefore be also a potnetial customer given that they trust us already the converion rate will usually be exactly the same, i.e. if 4% of original prospects ordered, then you can assume 4% of the new "qualified audience wil also order, though timing is a little harder to predict. . (if we just focus on two or three biggest revenue producers)
   Given how many silos we have this actually should open many opportunities.
   In addition we could assume that (1out of n) teachers is a parent willing to buy something for their child.
   We could assume that 1:n students would persuade a parent to buy something they feel they need in the course of the year.

6) Steady flow of new customers to Pearson sites: drive new sales, I have so far found no mention of a strategy to drive new organic visitor and convert them (currently a UK visitor finds the US site), but if there is one, we could assume a modest flow of new visitors and a resulting modest conversion rate. It should at least be equivilent to that achived in the US (Maybe this is Amanda)

7) Defend against losses via the move to mobile devices.
   Predictions for the industry are a continued groeth in mobile users of digital content at 10% per annum, however the younger users are a faster growing segment and this could be a very modest estimate. These users will go elsewhere if not commodated. This potential loss applies not nly to new products, but also to a need to consume existing products on a range of devices from different locations.
   Losses of 10% P.A in revenue compounded is not at all unrealistic.

9) Cost of maintaining platforms.
There seems to be no breakdown available between new platforms and maintaining old ones so this is difficult. In the software industry in general 10% of development costs is set aside for maintaiing them afterwards. I suspect it could be much more, but I suggest we assume a cost based on 10% of total budget and assume that we can comfortably reduce this by 50%. So that is a saving of 5% of total budget.

10) Cost of developing new platforms.
This can very conservatively be put at 25% on current budget.

11) Reduce integration bills for future acquisitions and speed up the process.

The M&A team would no more about this one, but inmy experience the budgets are huge. Management Information, getting eCommerce and user management systems intergated and single data catalogues is causing plenty of problems for the current portfolio and there are many opportunities if we were able to look deep into it, but it may be a bit too challenging.

Appendix 2 Example of dependencies
(Secondary Hub plans)

Phasing and dependencies