



Digital Experience Strategy

2016-2021

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1. Executive Summary

1.1. Background

The Royal Air Force (RAF) Museum was established in 1965 and opened at the London site in 1972. As we approach the RAF Centenary in 2018, we have taken the opportunity to develop a vision and purpose that will link us more closely with the RAF story and its people.

The current operating environment for the heritage sector is increasingly challenging as government funding continues to be cut across both the Department of Culture Media and Sport and the Ministry of Defence. In addition, competition to raise income through fundraising and commercial activities is fierce. In this environment it is vital that the RAF Museum becomes an agile organisation, able to respond quickly to change while keeping our messages consistent and high-profile.

Our five year Corporate Plan describes three strategic objectives with their means of delivery – both through physical and cultural transformation. The highlight of this plan is an ambitious RAF Centenary Programme that will transform our London site for 2018 and a RAF Centenary Legacy Programme that will continue this transformation through developments at Cosford, due to complete in 2022.

This strategy has been designed and developed to support the delivery of these programmes and thus the RAF Museum's three strategic objectives. It will be delivered in conjunction with a new IT Strategy and Digital Transformation Strategy that will enable the Museum to provide both public and commercial value and will play a major role in how we develop deeper and more diverse audience engagement in the future. It also sits alongside and supports strategies focused on effective commercial development, communication and interpretation.

1.2. Our Vision

The vision of the Museum is to ensure that the Royal Air Force's story endures and enriches future generations. The RAF Museum will be a world-leading visitor destination that engages, inspires and connects everyone with the RAF story through exploration of its people and its collections.

1.3. Our Purpose

The purpose of the Museum is to tell the story of the Royal Air Force through its people and collections.

- For our nation, we help people to understand the impact of the RAF on the world.
- For our visitors, we make our collections and the RAF story relevant and stimulating.
- For current and former RAF personnel and their families, we preserve, honour and share the stories of their service.

1.4. Our Values

Integrity: we are open, transparent and ethical.

Sharing: we work as a team to ensure our collections and expertise are accessible to all.

Passion: we care deeply about sharing our collections and their stories.

Innovation: we tell our stories and develop our business with creativity and imagination.

Relevance: we ensure our legacy by linking our histories with today and tomorrow.

Excellence: we are professional and strive to ensure excellence in all that we do.

1.5. Our Strategic Priorities

The Museum has a unique opportunity to help the RAF to celebrate and commemorate its Centenary in 2018 while improving our story telling and building up our resilience into the 21st century. Three strategic priorities will shape our activities for the next five years:

1. Interpret the RAF story

We will develop and deliver a programme of exhibitions, events, research and learning activities to mark the Centenary of the RAF in 2018. We will support this ambitious programme with an international fundraising campaign.

2. Focus the collection

We will carry out a full review of the collections to align them more closely with our vision and purpose. We will introduce an active contemporary collecting policy and digital technologies to enable access to and conservation of our artefacts and archives.

3. Invest in the RAF Museum

In order to deliver our vision it is critical that the Museum improves its resilience and is supported by a more robust financial and organisational framework. The development of new income streams coupled with focused investment and operational cost-saving measures over the course of this plan will enable this investment and secure the Museum's future.

The key principle for the Museum's future strategy is the RAF story. With a clear Digital Experience Strategy the Museum can better interpret the RAF story, share the collection, develop commercial opportunities and, as a result, more effectively invest in content infrastructure, staff training and wider public access.

2. Digital Experience Strategy - Overview

Within the Museum the term 'digital' has grown to include everything from IT to Digital Transformation, content and online retail. In the context of this strategy, 'digital' concerns itself with digital methods and methodologies, content, projects, production, skills, and research that contributes value to the Museum user's experience and the commercial operation of the Museum. The Museum's Digital Experience Strategy complements the Museum's IT¹ and Digital Transformation Strategies²; however, its focus is independent and the specifics of each strategy should not be used interchangeably.

This Digital Experience Strategy sets out the *why* and *where* of digital (as defined) and *how* we will use this understanding to add VALUE to the operation of the RAF Museum over the next five years.

2.1. Digital VALUE

It is important to be clear about what we mean by the term 'value' within the context of the RAF Museum. Value has two interlinked components: public value - in terms of our visitor experience - and commercial value - consisting of opportunities informed by our expanding understanding of visitors across all touchpoints (web, mobile, in gallery, shop, and social).

This strategy highlights how this value is generated and impacts across the fields of digital content (such as we find in our collection); digital projects (for example those projects currently being developed for the RAF's Centenary), digital products and services (including user behaviour data/metrics and Customer Relation Management (CRM) integration), staff skills, research and training. The question set against each of these fields is 'how can digital (as defined above) be utilised to extract or contribute value to the operation of the Museum (as defined by its strategic priorities) over the next five years?'

Elements of the Digital Experience Strategy are, therefore, marked against the strategic priority (SP) they support.

2.2. User Journey

This process of exploration and integration will be achieved using our digital expertise to develop the following areas of the Museum's operations:

- Archive and Collections
- Learning Resources (A&L)
- Customer Relations Management (CRM)
- Audience Behaviour and Experience Metrics

¹ To be completed in early 2017 after appointment of a Senior IT Manager

² To be completed with the support of a new role of 'Digital Transformation Officer' in Q2 of 2017/18

- Research and Innovation
- Exhibition and Interpretation

The value that digital contributes to these areas is best understood through the journeys that our audiences embark upon when interacting with the Museum (online or onsite).

Below is a speculative outline of one such journey. The narrative details how digital intervenes to increase public engagement and extract greater commercial value – in doing so syncing with the Museum’s strategic priorities. Digital in this context is the glue that holds the user journey together and the subject (in terms of the content that drives engagement) - providing a rich experience for the visitor (public value) and commercial opportunities for the Museum going forward.

A twelve year old girl, Ann, visits the RAF Museum with her school (SP1), the learning experience features a digital educational resource focused upon the story of the Spitfire. As part of her trip Ann notices the Museum is offering a ‘Spitfire Cockpit Experience’ (SP3); the experience includes a touch screen with video footage of pilots, facts and a 3D model of the cockpit.

Intrigued by the Spitfire story Ann uses the touchscreen to share the ‘Spitfire Experience’ via her social network (SP1/2). She then messages her grandfather (a keen Spitfire enthusiast) to ask if he would like to take part in the cockpit experience. Metrics record Ann’s interactions at each stage of the journey (SP3).

Ann’s grandfather’s details are logged and, if opt in is selected, added to our CRM database. This data will form part of wider marketing, communications and retail campaigns as appropriate (SP3).

Upon receipt of Ann’s message her grandfather books tickets for the experience online for himself and granddaughter (SP1/3).

As part of his ticket confirmation email he is sent a link to download the RAF Museum’s mobile App. The App provides functional services such as pre-booking for parking, offers for the shop, orientation when onsite as well as augmented textual and visual content in the form of a content trail within the Museum’s new Centenary galleries (SP1/2/3). The confirmation email also encourages involvement - volunteering and content creation - in the Museum’s online project ‘RAF Stories’ (SP1).

The grandfather is also encouraged to delve deeper into the RAF’s collections online website (SP2) and share this content and their planned trip via his social channels (SP3). Engagement with each of these touchpoints is recorded via software metrics and will be used by our marketing and development teams to further understand our audience’s interactions with the Museum and leverage the commercial opportunities this presents.

Come the day of the visit the grandfather has already downloaded the App to his mobile phone, taking the option to pre-book parking (SP3). Data from this transaction is recorded and added to the data portrait that each visitor interaction produces (SP3).

Once out of the car Ann and her grandfather are directed to the 'Spitfire Experience' via a member of the front of house team who, via his mobile tablet, explains how to log into the Museum's public Wi-Fi, any time based offers in the RAF Shop and special events happening that day.

During login/account creation the Wi-Fi splash screen advises the visitors of promotions - both in the shop and the cafe - as well as future exhibitions. The App also orientates the grandfather as he and Ann make their way across the site to the 'Spitfire Experience'.

Both arrive at the experience early and explore the Spitfire content whilst waiting for their time slot.

Once inside the cockpit, facilitators encourage Ann and her grandfather to photograph each other and share their experience across their social channels.

After the experience both decide to visit the cafe - taking advantage of the daily offers promoted on the Wi-Fi splash screen (SP3) seen earlier in the day. During this time they look at the different content trails offered within the App. They decide to take the 'Now & The Future' mobile content tour (SP1), using the App to augment their experience of the exhibits with video and specialist content (SP1/2).

All these content interactions are recorded, via user metrics included within the software, allowing the user journey to be understood retrospectively through analysis of the data each user interaction produces. All this data, along with user contact info, will be shared across marketing, development and communication departments, allowing a greater sophistication when targeting prospects with future exhibition, membership and retail offers (SP3).

Ann and her grandfather complete their 'Now and the Future' trail and return, via the Museum shop, to their car and home.

Some days later the grandfather is contacted and asked to rate his day out as part of Museum competition run on the Museum's Facebook page. Through this process the grandfather becomes a friend of the Museum's Facebook channel. He is encouraged to share his positive experience via his (and by default the Museum's) social networks (SP3).

In addition he is offered the chance to purchase a full colour, limited edition 2D/3D print of the Spitfire (print on demand) taken from Museum's copyright owned material held in the Archive (SP2/3).

Membership, exciting new content, retail and forthcoming exhibition offers will also be pushed to Ann and her grandfather over following weeks (SP3), either directly via email or via the Museum's social channels.

Post-visit Ann and her grandfather's journey is analysed against the data trail they left during their day out. From the data about content, dwell time, conversion rates, sharing and spend a user data portrait is developed that can be shared

across our marketing, communications and development teams. This allows the Museum to further refine its offer and be far more responsive to its audience going forward (SP3).

In this speculative narrative the dynamic relationship between the public and the Museum is made possible through a seamless combination of physical and digital means, exemplifying the value that digital can contribute to the public and commercial operation of the Museum.

Uniquely digital enables a relationship between public and Museum that is cyclical rather than linear - something that is not possible using other methods - establishing an ongoing two way dialogue, one that is responsive to but also influences the direction the Museum may take, through better understanding our audience's relationship to exhibitions, communications, marketing, events, retail and strategic planning³.

3. Content Methodologies.

A number of digital building blocks will need to be integrated over the next five years to make this speculative user journey a reality, maximising value to the user and the Museum alike.

3.1. COPE - Digital Content.

The principles of COPE, "Create Once, Publish Everywhere", encourage the creation of a simple and consistent data structure around content so that it can be easily shared across a range of publishing platforms and touchpoints (e.g. web, mobile, in gallery, social media), while being protected from rapid technology changes.

Utilising this methodology the Museum will be able to deliver content to and from all of our networked touchpoints using existing data silos while resisting the temptation to build more. Using COPE, we will ensure that the same data is not being stored in several locations and that the underlying content infrastructure employs a robust and open architecture. This enables the content and metadata to flow independently and uninterrupted across a range of public and private touchpoints. This approach delivers several key benefits:

- Public and commercial exposure of core Museum content (SP2/3)
- Reduction of hardware/storage provision (SP3)
- Increased future-proofing and legacy value (SP3)
- Reduction of management overhead (SP3)
- Ability to commercially leverage the Museum's digital assets globally (SP3)
- Ease of collaboration with third parties to develop with our digital assets (SP3)

³ However the Museum needs to be careful not to curate its public; the visitor journey always starts with the quality of the offer, the value the user ascribes to the offer will drive the value generated for the RAF Museum brand, not the other way round.

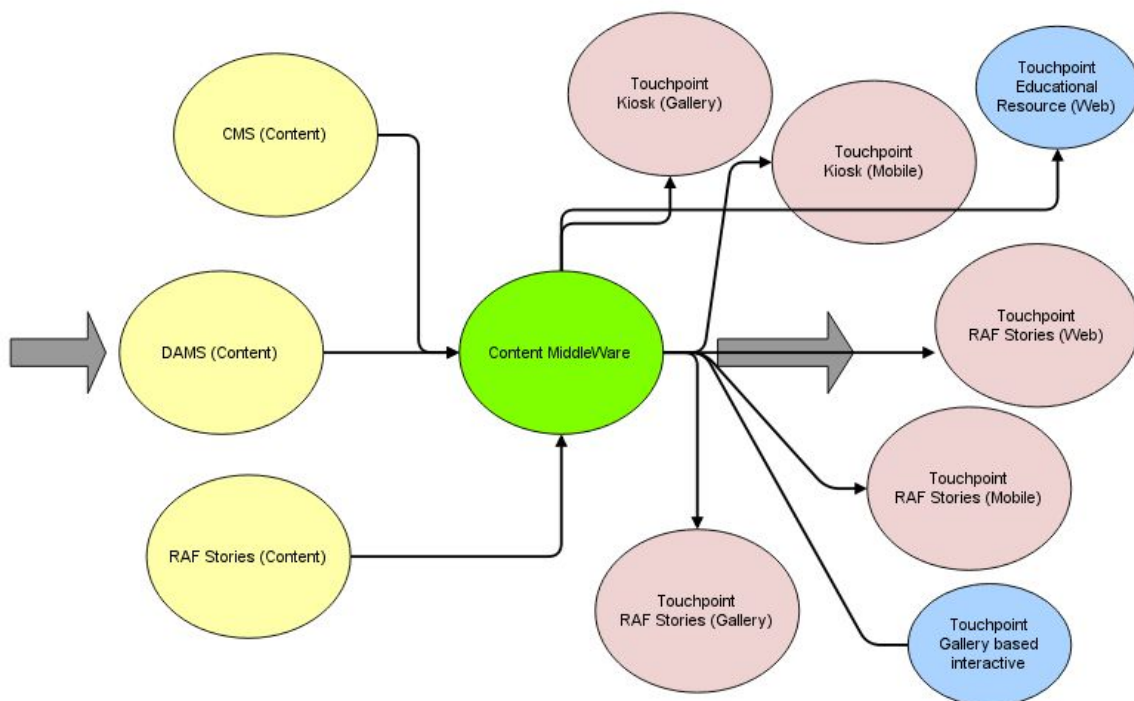
- Greater public access and understanding of the Museum's collection and archive (SP1/2)
- The transformation of data into information and eventually knowledge (SP3)

4. Content Infrastructure

In order to extract the maximum value from our digital content the underlying content network needs to be centralised around a hub and spoke structure, allowing the free flow of content and metadata back and forth between user and host.

Where a silo currently exists, for example within the current Collection Management System (CMS), this will be equipped with a publishing gateway or Application Programming Interface (API) that allows content to be easily disseminated. The flow of content will be two way - outwards to our content middleware and onward to public and commercial network platforms and inwards in the form of User Generated Content (UGC) which we will be able to access, for example in regard to an exhibition or CRM analysis. This content ecosystem also includes elements such as the Digital Asset Management System (DAMS) and content rich projects such as 'RAF Stories' - allowing rich media assets to be easily managed and shared publicly and commercially.

The diagram above illustrates this architecture and indicates the projects that could be



hosted when created.

4.2. Content Infrastructure and Touchpoints⁴

Content Infrastructure

Collections Management System (CMS)

The CMS (Vernon) currently houses our digitised Collections content. Selected content will be harvested by the content middleware solution and made available to all public touchpoints - including mobile, web, social and gallery as well as aggregator platforms such as Europeana and other heritage bodies.

Digital Assets Management System (DAMS)

The DAMS project will host all rich media digital assets; content will be licensed to a range of commercial and public use cases. This is an essential building block of the content infrastructure and delivers to each of the Museum's strategic priorities. It will be delivered as part of the planned RAF Centenary Programme: Phase 2a.

RAF Centenary Programme: Phase 2a - 'RAF Stories'

A significant amount of the content infrastructure detailed in this strategy will be delivered as part of our commitment to developing the RAF Centenary project 'RAF Stories'. This approach will deliver excellent value both in terms of the RAF Centenary Programme and longer term legacy, through the provision of a resilient and future-proof content distribution network.

Middleware - Content

Content for all touchpoints - web, mobile, and gallery, social - will be hosted on the middleware server. This content will be harvested from a variety of content silos - DAMS, CMS - as well content generating projects such as 'RAF Stories' and 'Historic Hendon'. The middleware will also feature licensing functionality to make sure full value, public and commercial, is extracted from all hosted content. This approach delivers explicitly across all three of the Museum's strategic priorities and will be delivered as part of the planned RAF Centenary Programme: Phase 2a.

Touchpoints

RAF Stories (Mobile, Web & Gallery)

Content from the middleware will be served from 'RAF Stories' across all its touchpoints (web, mobile, gallery, social). The content journey here flows two ways. For example User Generated Content (UGC) such as an RAF story could be saved from some of these touchpoints back to the middleware to be available for use within future exhibitions and planning.

'Kiosk' (Mobile, Web, Gallery)

The interface of the replacement Kiosk system has not yet been resolved - it could be a mobile App, static kiosk, Bring Your Own Device (BYOD), or online resource; in a sense the interface is irrelevant; the solution will be device agnostic and designed to fit the use case, be that mobile, web or gallery.

⁴ There has been real excitement about the potential that the content infrastructure provides in connecting to new audiences (nationally / internationally) and new experiences (devices, VR etc). To make the most of the new infrastructure will require staff training / new staff and good metadata; for many the biggest impediment to this way of working was lack of resources.

Educational Resource (Web)

In line with the constant evolution of the national curriculum new educational resources are always required. These online resources could be a series of template based documents that pulls dynamic content from the middleware into a downloadable format such as PDF.

Gallery Based Interactives.

Content required by gallery interactives will, where possible, be delivered from the content middleware. On occasion it might be necessary to cache this content within a particular gallery if the content is large and bandwidth demanding. This issue is particularly relevant to the development of our new HLF funded exhibitions which are content heavy. A solution to this problem is will be developed with our RAF Centenary design and technical partners.

5. Production - VALUE

Having outlined the value digital contributes to content and software development, distribution and consumption the strategy will now look at project management methodologies, some of which have been developed in response to issues raised by digital production⁵.

5.1. Production Knowledge

Each new digital project brings with it fresh challenges and skill requirements within the Museum. There is always a risk to building projects in a top down manner, and this is particularly true of digital projects where software development and hardware procurement are resource heavy and the needs of stakeholders may change rapidly. Ideally digital project development within the Museum will take an iterative approach; consisting of a develop, test, feedback and iterate production cycle, potentially never reaching a 'finished product'.

The adoption of this approach will deliver:

- A Proof of Concept (POC) that can be shared internally and externally.
- A detailed and validated project brief.
- Unified vision around project trajectory.
- Coherence across the team about what the brief is asking for and why.
- Confidence when working with third parties to question and further validate project development.
- A deliverable product or service.
- An avoidance of novelty technology against properly integrated solutions.

5.2. Project Skills Acquisition.

As far as possible, this iterative approach will make use of departmental talent from across the Museum. If specific skills are not available these will be developed through a mix of formal training, internal skills sharing, project secondment and/or backfill.

⁵ For instance, moving from building digital products in a top down manner when an agile, bottom up approach may be more appropriate for delivering products into an ever changing market.

This approach will deliver value to both staff and project development (SP3). Up-skilling staff builds confidence and enhances methods of project development and management (Prince2, Agile), facilitating cross-departmental staff members to collaborate on the delivery of complex digital briefs, acquiring new skills that can then be shared and used in future projects.

Digital briefs developed by a cross departmental team tend to be far more accurate and cost effective due to their having been validated by a range of stakeholders; also staff have the confidence to push back where necessary - resisting the tendency towards digital novelty - and not employing digital methods when a non-digital approach is more appropriate and cost effective. Finally, having internal project stakeholders manage the development relationship with 3rd parties also means a greater chance of accurate 'on budget' and 'on message' delivery.

5.3. Formal Training

Complimenting this project based approach will be a formal timetable of training within the digital department. This will range from production skills - software development and media production - through to project management skills such as Agile and Prince 2. This approach complements a holistic drive towards digital literacy and skills acquisition and this will be addressed explicitly in the Museum's Digital Transformation Strategy.

5.4. Role Development

Training and skills development during projects will enable our digital team members to move into a more general role of content producers which better reflects the manner in which digital blurs boundaries between disciplines. This new role of content producer will combine a general understanding of media production with a particular specialism – AV/Photography/Interaction/Online – and developed project management skills. Content producers will work across Museum departments, either as a content specialist or project manager working with external media agencies.

6. Legacy - VALUE

This section focuses on the value that an integrated and robust legacy strategy will contribute to the operation of the Museum.

6.1. Content

Content stores within public organisations are often siloed. All new digital commissions need to think about how the content they produce can be shared easily beyond the funded cycle of the project⁶.

⁶ This is particularly true when considering User Generated Content (UGC) where leaving UGC in an inaccessible silo is unacceptable. Rather UGC should be considered as important as the formal Collections and Archives of the Museum, potentially offering the Museum a separate yet compelling narrative around the interpretation of the RAFstory (SP1) and the content that informs that story (SP2).

6.2. User Communities

As well providing open access to content thought should also be given to developing the community of users that engage with projects. Is it possible that communities of 'super users' who have formed around the platform or project might take an active 'system admin' or 'super user' role once funding has ended or reduced?

6.3. Public/Staff Users.

With this form of engaged devolvment in mind, all public facing software platforms should be developed for a non-technical user - all tools should be simple and easy to use for both the public and staff and where possible using an open architecture - one that allows simple integration with other digital platforms, tools and services. This provides further value to the Museum in that digital tools and services can be recycled or added to a Museum wide digital toolkit to be utilised by non-technical staff in future projects. The road map for how this works needs to be communicated, through the digital department and 'digital champions' within departments.

6.4. Software Development - FLOSS/OS

Where possible software will be acquired and distributed as Free Libre Open Source Software (FLOSS) or Open Source (OS) products to be built/shared/iterated by ourselves and other related bodies; through this process constantly refining, evolving and improving the software product. This approach is particularly relevant in terms of developing collaborations with the other service Museums (NAM⁷ and NMRN⁸) where a collective approach to software development may provide for greater resilience and budget savings.

6.5. Legacy - Outcomes.

Success in these endeavours will have a profound effect on the longevity and value that projects deliver. Adopting a robust legacy strategy at the very beginning of project development may deliver some of the following scenarios:

- The project is devolved and managed by a community of users formed during its funded cycle.
- The community formed during the funded cycle of the project fall away leaving a 'snapshot' network accessible resource - which is indexed as Open Data and has a API wrapped around it to ensure open access.
- The open architecture of the data resource allows content from the platform to be shared to academic, professional and domestic users alike.
- The software platform and tools developed during the project's production will be shared with other heritage bodies and service new Museum exhibitions beyond the current project's production cycle.

⁷ National Army Museum

⁸ National Museum of the Royal Navy

7. Audience - VALUE

It is also important to look at the value digital can contribute to our understanding of current and potential audiences.

7.1. Segmentation.

In order to deliver projects successfully our project development teams need to understand the audience segments they are building to, such as age group, demographics and learning style. Developing a picture of our audiences and being clear about which audiences we are targeting fits well with the iterative approach to production detailed earlier. The test, iterate, test loop is particularly effective in ensuring digital products and services are matched to their intended audience rather than the enthusiasms of the development team.

7.2. Metrics

Digital can support research and analysis into how visitors relate to the Museum and thus, feed into effective audience development. In order to build up a comprehensive understanding of user interactions, across all touchpoints of a user journey projects will specify software metrics that measure usage, behaviour, engagement and reciprocity in all new projects.

This data will allow the Museum to answer questions about the relationship of content to engagement numbers, conversion rates, demographics etc. This is valuable information for our design, communication, marketing, development and commercial departments and, to ensure an integrated approach, this data should connect directly with our CRM solution. The information this data yields also has value in the current funding landscape, where engagement statistics are a KPI effecting current and future funding success.

Currently departments are siloed in how they collect and make sense of audience data. Amongst our peer Museums the role of customer intelligence/data analyst is becoming common and the digital department in collaboration with development department have been talking to external agencies to address this going forward.

8. Collection - VALUE

One of the central tenets of this strategy is that the greatest value of the RAF Museum is comprised of our collection combined with the knowledge of staff used to interpret these artefacts. However, feedback has indicated that we need to address the lack of assets that have been digitised to date in order to increase the range of material available and realise potential commercial value.

Based on this feedback, the digital team will collaborate with Collection Services to explore how large-scale digitisation might be achieved over the next five years.

8.1. Public Value - Collections

Content

Creating public access to our collection is a strategic priority for the Museum and major funders alike. Digitisation within the Museum has previously been thematic, as evidenced by the recent 'StoryVault' and 'Casualty Cards and Forms' projects. Currently only a fraction of the RAF Museum collection is digitised and there are simply not enough internal resources to start at one end and work our way through.

Digitisation

Expansion of the content infrastructure – detailed above – does mean that a Museum Collections website is a possibility (from a structural perspective) however the collection website would require content. The fact that large corporations such as Google are now working with heritage clients to digitise huge amounts of content may resolve this log jam. However, before committing to such an arrangement the Museum needs to develop its understanding of these partnerships – both opportunities and risks; the digital department will work with Collections Services to develop the Museum's position in this regard.

Access

As the digitisation of content progresses we also need to look at how each tranche of digitised content can be made available to the maximum amount of users. This might be via an online collections platform (providing an API for access), a media sharing platform such as Flickr; licensed unconstrained as Open Data (OD) or under Creative Commons License (CC). Once this decision is made it is important to understand - from the metrics - the level of public engagement but also to ask questions that contextualise these metrics, for example:

- What did people actually do with the content they accessed?
- What was the demographic of the users - did we expand a target audience?
- Did User Generated Content (UGC) feed back into the archive?

8.2. Commercial Value - Collection

Alongside public value, greater commercial value can be extracted from the collection; initial ideas include:

- Starting dialogue with third parties such as Ancestry.com, in terms of licensing content for purchase online.
- Involving guest curators/archivists in developing and exploiting elements of our archive within a commercial realm⁹.
- Scope commercially available 2D & 3D 'Print on Demand' services.
- Form partnerships with educational resource providers to leverage our content

⁹ For example a company that has a fashion archive who are very interested in developing access to our uniform collection.

within this sector.

- License 3D models of our Collection to games developers.
- License assets to broadcast clients.

The digital department will work with Collections Services and the Commercial teams to develop these ideas.

9. Research - VALUE

9.1. Collaborations, Residencies and Commissions.

Over the next five years digital research strands will be developed in collaboration with academia¹⁰, commercial entities¹¹ and other heritage partners¹². These will compliment a series of digital artist's residencies and research posts to really push digital innovation, specifically the topic of creating digital pathways into and out of Museum's Collections and Archives¹³.

9.2. Digital Conservation and STEAM.

Looking further ahead there is an exciting opportunity to unite the RAF Centenary STEAM¹⁴ programme with a need to think about the conservation and possible restoration of digital artefacts in our collection, considering computer software and hardware within our conservation remit. The development of STEAM workshops and learning initiatives would seem an ideal opportunity to explore this possibility.

9.3. Digital Culture.

A forward looking research policy provides a foundation to promote the Museum and address awareness of digital culture within it. Outcomes from the Museum's research activities and digital projects (such as RAF Stories) would be presented at conferences, published in journals and there exists the opportunity to host conferences to showcase the Museum's work as part of the 2018 celebrations¹⁵.

All these activities raise the profile of the Museum, increase its brand value globally and contribute to an awareness and engagement with digital culture internally. The awareness of digital culture will be developed across the Museum via a series of lectures and workshops from digital practitioners and/or researchers as well as site visits to particular events such as exhibitions or technology vendors.

¹⁰ For example NESTA

¹¹ Such as our ongoing relationship with digital agency Somo in London.

¹² For example the National Army Museum and the National Museum of the Royal Navy

¹³ This will focus on interface design, digitisation, licensing strategies or revenue generation.

¹⁴ Science, Technology, Engineering, Art and Maths.

¹⁵ Digital culture and practice within the Museum is at a key moment, for instance thinking about User Generated Content, and what that might mean for copyright or the Museum's brand value.

10. Digital Transformation Strategy

To back the ambition of the Museum in its drive towards a base level of digital literacy a staffing request for the role of Digital Transformation Officer will be submitted. The 'Digital Transformation Officer' will work - for a fixed term - with all departments to consider the value digital tools, services and products can contribute to their and the Museum's everyday operation. Working closely with the Head of Digital Experience, they will develop the Museum's Digital Transformation Strategy, the aim of which will be to increase base IT literacy levels and to ensure future training, software or services are properly scoped and delivered to ensure value for staff and the Museum alike. The Digital Transformation strategy will build on existing Museum practice whereby staff members are encouraged to take on new positions within projects - as part of a secondment or backfill arrangement - acquiring new skills which can then be shared within their department upon their return.

As a precursor to this appointment a selection of staff members or 'digital champions' will be selected to act as ambassadors for digital transformation needs and feeding back departmental requests related to digital training, products and services.

Feedback has shown that 'digital champions' are seen as vital to greater engagement with digital culture through the identification of opportunities within departments. Furthermore, raising awareness of the benefits and providing incentives for skills development will help the transition to a greater level of IT and digital literacy.

11. IT Strategy

As noted earlier there is a need to tease out the different strands that currently constitute the word 'digital' within the RAF Museum. By developing a standalone strategy for IT clarity will be gained and the requirements of this specialist area explored in detail. The IT Strategy is currently being developed by our in house staff and will be ratified by several external agencies including our auditors and IT consultants.

12. Summary.

This strategy has explored the value that 'digital' will contribute to the RAF Museum over the next five years and outlined the steps that will be taken to realise this value.

For some museums the word 'digital' has almost become meaningless, promoting institutions to talk of a *post-digital* museum. For the RAF Museum, however, the essential building blocks still need to be established before such a move can be made.

The Digital Experience Strategy, therefore, has been tailored specifically to the current stage in the evolution of the RAF Museum, within which 'digital' has been defined as concerned with content and user experience (as opposed to Information Technology (IT) and Digital Transformation (DT)). Once the IT and DT strategies are created they will - alongside the Digital Experience Strategy - enable the Museum to move from current uncertainty about the specific roles of IT, DT and Digital Experience, to a position in which digital is completely integrated within the Museum's audience experience and our daily

operations, delivering full value against investment. In this *post-digital* stage 'digital' will form one part of a varied toolkit that enables the Museum to deliver its vision: to tell the story of the RAF.

13. Appendix A: Projects 2016-2021

13.1. RAF Centenary Programme - Including 'RAF Stories'

This digital project will record user stories telling of their relationship to the RAF and by turns challenging the singularity of the RAF story. User generated content (UGC) and collections and archive content will be saved to the content middleware and will be publicly accessible via web, mobile and in gallery interactive. This content will be licensed as Open Data (OD), Creative Commons (CC) license or commercial licence as appropriate.

The content infrastructure detailed in this strategy will also deliver content to the majority of RAF Centenary exhibition interactives currently being developed for 2018. The digital team will work with our external developers to ensure this process is robust against its public remit but flexible enough to ensure a responsive and creative development cycle.

13.2. Digital Asset Management System (DAMS)

The DAMS project will host rich media assets managed by the collections team. It will also supply content to be used within 'RAF Stories' and any web, mobile or gallery based interactive requiring collections or archive content.

In accordance with this strategy's focus upon public and commercial value these will be licensed to a range of commercial and public users. This project has been extensively scoped and production will start in late 2016.

This is a major digital output from the RAF Centenary Programme and is, therefore, an essential building block in terms of delivering to each of the strategic priorities, namely leveraging our digital assets; investing in infrastructure and expanding our audience reach through new interpretations of the RAF story.

13.3. Replacement of the Kiosk system

The digital department will scope a replacement for the current kiosk systems situated both in Hendon and Cosford. Whilst the Kiosks are viable for a few more years at Cosford, the content, and more importantly the means of engaging with this content is limited.

As the team develop the scope for the kiosk project they will need to give careful consideration of variables such as:

- target audience
- infrastructure (Wi-Fi)
- management and support

Carefully developed this project will again deliver to all three of the Museum's strategic priorities and integrate with the RAF Centenary Programme.

13.4. Contactless Giving

The digital team will scope and develop a project around contactless visitor donations, the idea being that the Museum should enable and encourage visitors to donate money in the easiest ways possible. This would be an excellent project to develop in collaboration with our partner MOD supported Museums (NAM and NMRN) where scales of production may provide monetary savings.

13.5. Intranet

As part of SMT's staff forum a request has been received to create an Intranet. Whilst there is debate about the validity of an Intranet system within the Museum, the digital department has agreed to scope the project. Initially we will speak with those stakeholders requesting the service to ascertain what they require, based on that we will produce documentation that advises the best way to move the project forward.

13.6. Knowledge Base.

With the planned RAF Centenary works in 2018 the digital department will extend the process of integrating formal documentation procedures. This will include all aspects of software development, acceptance and product handover criteria, M&M/OEM manuals and SLA contracts. All documentation will be held within a publicly accessible Wiki/knowledge base, enabling staff to access information in a timely manner and move away from the siloed culture currently operating in the Museum.

14. Appendix B: Feedback from the World Café event

Question: Working digital should no longer be the preserve of the 'Digital Specialists' but should be integrated in all content roles. How might this be best achieved across the Museum?

Summary

- digital champions seen as vital to the transition, they can identify opportunities and should lead by example
- all tools should be simple and easy to use for both the public and staff
- raising awareness of the benefits and providing incentives for skills development should help the transition
- having clear guidelines and policies should take the fear of "am I allowed to do this / what am I allowed to do" away
- a clear plan of how to achieve this is seen as vital

Group 1

- not just content roles, but everyone
- digital champions vital to the transition of a digital first organisation
- run computer clubs, use the help of volunteers
- develop digital systems that staff must use
- sell to staff as advantage it will make your job easier
- main challenge is the big breadth of digital experience of staff (from no email to skilled)
- all systems should be simple, this applies to all users, public and staff
- IT means of delivery
- digital: channels of content
- increase digital literacy = increase revenue

Group 2

- IT = Backend
- Digital = Coms
- training as needed / on demand
- danger of information overload, don't make too much information available to staff
- make user friendly
- don't digitise for the sake of, it's expensive
- staff doesn't need to understand digital technology to understand the benefits
- don't over do
- knowledge transfer between departments is a huge opportunity and can be facilitated with digital tools

Group 3

- back up
- identifying what we want to achieve
- enhance the visitor experience and marketing / commercial
- simplicity of use

- access
- have good support
- digital champions to lead by example
- more resources needed
- have clear guidelines and policies

Group 4

- have a good plan / strategy
- policies
- raise awareness of the benefits
- provide training
- enabling everyone
- specialists to provide support and insight
- provide incentives to acquire skills

Question: What are the pros and cons of a project such as 'RAF stories' in terms of content produced and the value to reuse the tools for future projects?

Summary

- general excitement about the possibilities of engaging new audiences, surfacing new stories
- main concerns are about 'validating' stories and copyright as well as resources to facilitate the project
- there are concerns about what a project like this can do to the brand
- the reuse of digital tools is hard to imagine at this stage and needs to be communicated better

Group 1

Pros

- become more agile
- could become a catalyst for digital data accessibility
- opportunity to connect teams
- identify organisational benefits
- surface buried content
- valuable content to be added to collection
- create links between stories and content

Cons

- alienates staff
- data silos
- project legacy
- lack of resources
- copyright issues

Group 2

Pros

- engagement expansion
- data capture

- variety of stories
- overall visitor experience (enhance with audio)
- developing a data source
- commercial benefit
- partnerships
- discover unknown stories
- reaching new audiences
- capturing stories before they are lost
- building of new areas of focus
- knowledge sharing
- enhance galleries stories and exhibitions
- expand narratives
- open data
- freedom of sharing

Cons

- manage expectations
- quality
- validating the stories
- moderation
- effort and resource intense
- indexing important data
- copyright & protection
- loss of trust when commercial benefiting
- technical scalability
- value of stories
- challenges museum value
- brand reputation (controversial)
- legal implications
- audience disengagement
- value vs effort

Group 3

Pros

- human interest stories
- collection more accessible
- enhance understanding
- enhancing tech
- social interaction
- commercial opportunities from stories
- collecting nationwide stories and expanding appeal
- technology reuse

Cons

- exaggerated stories
- reputation challenged
- validation of stories
- libel if written (t&c's)
- to personal
- substantial time / resources required
- adaptability to future platforms
- reflection - editing stories

- clear criteria
- multiple departments required
- loss of copyright

Group 4

Pros

- wider opportunity to collect stories
- expanding types of stories
- different perspectives
- testing digital limits
- digital collection / policy creation
- meeting business objectives
- building relationships with RAF (partners)
- skill training
- identifies lesser known stories
- volunteer opportunities
- model accounts documented with more accuracy
- additional stores can be collected on specific themes
- merging data sources

Cons

- RAF control of narrative
- non-factual claims
- work involved vs engagement
- data silos / unsustainable
- limited age resource
- loss of copyright
- embellished historic account
- what is the end point
- what happens to data
- contribution expectations
- lack of accessibility of non tech users
- staff resource

Group 5

Pros

- surface content
- proactively collect
- user engagement / service meetings
- veteran social engagement
- push boundaries
- facilitate discussion / sense of importance
- uncover different perspectives
- emotional reality / personal accounts

Cons

- validation
- credibility

- content responsibility
- RAF relationship
- self moderated
- dark side (net) risk
- forced accounts (risk)
- mitigating adult content / themes

Question: The archive and the collection are the Museum's greatest assets. How might the Digital Strategy support linking these assets with our audiences to deliver greater engagement and commercial value?

Summary

The overall feeling was that we need to address the lack of assets that have been digitised to be able to offer a complete selection of services from learning resources, exhibition material and realise the commercial value from further digitising the collection.

Group 1

- It was stated that the Museum's assets in the archives are divided into different sections: These being Documents, Photos, Medals & Uniforms, Fine Art and Film
- With only a fraction of the archive having been digitised, lack of resources to increase the process was a recognised issue
- We are considering a target audience more aimed at women and children for the RAF Centenary, giving priority to what is of greater need to be digitised. There are 3 segments for visitor profiles describing their levels of interest - paddlers, swimmers and divers
- Users should dictate what content be included rather than the creators

Group 2

- There is a move away from the touch screen kiosks at the National Gallery because the physical painting was everything
- It would be good to have all the extra info available through a device/smart phone while you are visiting the museum, but the Wi-Fi coverage across the site had to be greatly improved
- There was discussion over whether we should be digitising everything in the collection to maximise the commercial potential or not to, because without experience and research of the audience it would possibly be a waste of time and a problem with the lack of resources to perform such a task
- The digital strategy should be written to address the digitising of every asset the museum has, and if it wasn't worth digitising then why do we have it in the collection?
- It was also discussed that increasing the collection on-line would be good from

a commercial angle and on-line exhibitions should be utilised to build relationships with many visitors across the globe that would never have the chance to visit the RAF museum in person.

Group 3

- A high percentage of images used in RAFM exhibitions and on the website are from the Museum's own archive and kept costs down and avoided copyright issues
- An external collection of images has been digitised by a group of volunteers and also by asking the public to submit their own. This resulted in the website/database they were put on receiving 10 million hits in 3 years
- Most of the conversation for this session revolved around making the Museum assets that we have digitised more easily accessible to all staff that want and need to.

Group 4

- IWM have a good film archive resource that is sold to many customers (including the RAFM) and these sales can be tracked, creating knowledge of what is being used and where and which are the popular assets with the use of Google analytics
- Many schools were left disappointed that the OFH - Battle of Britain documentary film was now no longer available to them as part of their visit, and could it be put on the website for them to view off site (this is not possible because of the use of copyright images. But there is provision being made to incorporate the film on to the Dambusters screen)
- It was also a shame that the Cobham exhibition documentary film was also not possible to be viewed on-line because of the same issue. A renegotiation with Pathe News may allow it to go on-line. This would give a new life and audience to the temporary exhibition.

Group 5

- We often give away resources for free to gain more interest
- Those using digital tech were found to spend more money with the museum
- It was a missed opportunity not obtaining personal email details from visitors when they log on to the museum's Wi-Fi.

Question: The Museum is currently provisioning significant infrastructure to enable sharing of digital content across web, mobile and gallery - how do you think this infrastructure could best serve you, your department and the Museum?

Summary

Excitement about the possibility that digital infrastructure provides in opening up to new

audiences (nationally / internationally) and new experiences (devices, VR etc).
To make the most of the new infrastructure will require staff training / new staff and good metadata. Resources are seen as the biggest concern

Group 1

- increase access for all (visitors, staff)
- track usage / misuse
- increase awareness of the museum nationally and internationally
- locate expertise of RAF subjects 'crowd sourced expertise'
- how do we react to external comments / facilitate don't condone
- commercial opportunities
- avoid duplication of work / items
- conservation, preservation: reduction of handling fragile objects
- seas of comparative analysis of remove / fragile objects

Group 2

- identify the more commercial items / digitise them first
- make small charges
- know what we have
- aid to conversation
- bring a new audience / an international audience to the museum
- crowdsourced curation of exhibitions
- curate your own visit
- changing technical standards
- terminology of metadata needs to be high quality

Group 3

- enabling storytelling
- widen engagement with museum (social media)
- reach those that cannot come to the museum
- huge potential audience which needs an engaging experience
- VR
- work to be done before the infrastructure can be put in place
- link experience to sales
- standardised metadata
- obsolescence
- HR policy - how do we need to hire

Group 4

- attractive to visitors
- great of PR and media
- people can do their own research
- access to content
- let curators be curators
- crowd sourced metadata / volunteer data entry
- track visitor interest
- concerns: money, staff time, obsolescence, good user interface needed
- star use of Wi-Fi / less paper
- pre visit information
- creative visit on device

Group 5

- opens up the world
- media access
- research
- potential visitors
- genealogists
- former service personnel
- digitise exhibitions
- access to information
- need a digital-savvy workforce
- investment is needed
- revenue generation
- emotional investment
- bring people in and keep them as mentors
- real time feedback
- digital guides, rich information, augmented reality

Question: How might digital as defined in the digital experience strategy deliver value to the strategic priorities of the Museum over the next five years?

Summary:

First there was a need to be clear by what we mean by value and digital. There was a real need for a platform or tool to capture ad hoc stories and produce informal department specific content - and these would include under represented audiences - and the training needed to make use of this. Alongside this was a need to develop a content strategy - that would include digitising the most valuable assets first, building community around these artefacts and exposing them commercially.

Group 1

- no space - to add stories / volunteers
- culture change
- digital embedded assets
- enabling volunteers
- training
- invest in volunteers
- how do we collect serendipitous stories
- collection of stories / audience selective
- dissemination of the contemporary
- identify content and audit

Group 2

- schools: curriculum focus
- our finest hour
- physical access
- schools platform
- copyright
- how do you get the panes in?

- communities
- spitfire: community of interest
- new perspectives
- new resources
- younger audiences
- train to progress

Group 3

- digital is misleading as a term
- lack of content
- lack of resource
- digital culture-change
- digital champions: empower / embrace digital
- RAF audience / expansion through digital means
- BAME / disabled community
- commercial: AV-BBC
- copyright ?
- 10% art collection photographed
- easy to use search

Group 4

- appeal of specific community / long tail
- self server
- focus collections (all+ everything (google))
- thematic - 100 years
- the most valuable first
- using object value and curatorial value
- find BIG pattern and develop a content strategy

Group 5

- public sector
- community around content items
- integration of platforms
- cms
- cross-reference communities of interest
- google mapping
- cultural overlap
- silos
- cross disciplinary project groups
- museum authority
- users lead on story
- cataloging voice
- moderation
- dialogue not moderation
- museums assets curation