

On-Demand Printing Transforming Museum Visitors Experience

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London's National Gallery: A Success Story

In June 2003, London's National Gallery and HP launched the first ever on-printing service in a museum. Thanks to it, National Gallery visitors can order a reproduction of any painting from the Museum permanent collection and some temporary exhibitions in different sizes and get it printed in a few minutes to take it home with them.

The NG relationship began with collaborative research with HP Labs in 1998, a relationship that continues today. As part of that relationship, the entire NG collection was digitized at extreme quality resolution and stored on an HP high-volume storage and processing server system. The digital images were used for scientific examination, fine-art reproduction and educational outreach efforts.

HP Large Format printers and technology developed by HP Inkjet Commercial Division in Barcelona allow for near-perfect color reproduction from the digital scans. The prints were used by restorers to practice their approach before touching an original. Sequences of large format images printed during the restoration process provide a valuable log of work done. The NG is one of the world's most demanding and informed imaging authorities, and they acknowledge that the quality of reproduction achieved with HP DesignJet printers significantly exceeds any previous results they have been able to obtain.

Prior to the launch of the print-on-demand service, National Gallery's poster offer consisted of 134 posters across 4 sizes, produced on offset. This represents a mere 5% of the National Gallery's Collection. The collection, comprising 2500 works could not be lithographically produced. Even a minimum print run of 500 posters per design would result in a stock holding of 1.2 million units. Such a huge stock is not financially or physically viable for the shops and the warehouse.

The new service resulted in a great success that not only improved visitors experience by offering them a broader selection of products and formats but also created a new source of revenue for the Gallery with significant advantages over the traditional sale of offset prints:

- No storage, transportation or management of stocks of offset prints; posters are only printed once a customer has placed an order and paid for them.
- New attraction to the museum store, increasing the store traffic and the time that visitors spend in it with the opportunity to cross sell other items.
- Possibility to offer the service also on the Museum web site, increasing traffic and creating a powerful combination of brick-and-mortar and online stores.

- Improved service to the community, offering students and researchers faithful reproductions of the Gallery masterpieces for academic purposes.



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Innovation Continues: Audio Guiding + Print-on-Demand

London's National Gallery success triggered a whole new set of ideas to build on the Print-on-Demand concept. One of them seemed to deserve particular attention: Why keeping Print-on-Demand within the domain of the Museum stores and not integrating it with the entire visitor experience in the Museum?

The result is an ambitious project, in partnership with one of the leaders in audio guiding services, Espro Information Technologies, that will see its first implementation at the KHM - Kunsthistorisches Museum (Museum of Fine Art) in Vienna.

Millions of visitors that arrive at the museum every year are well familiar with the audio-tour experience available for them. ESPRO's advanced exSite™ technology offering multi-lingual audio guiding, has long become an integral part of their tour.

The new MyCollection system allows visitors, in addition to the audio guidance, to select their points of interest and bookmark them as they walk through the exhibition halls, using the same ESPRO's exSite II portable unit. The visitors can then tailor their own individual media product as personal catalogues or personal posters in a variety of sizes to be either printed for them on the spot, or to be delivered to them right after. This service gives the visitor the capability to take home "a piece" of their experience while visiting the site,

personalized and fully associated with their visit enthusiasm.

How Does *MyCollection* Work?

- As a visitor enters the site, before starting the tour, he/she receives an *exSite II* portable unit.



- Using the portable unit's keys while walking through the exhibition halls, the visitor can activate audio guidance and/or bookmark selected exhibits reflecting personal interests.
- At the end of the visit, the visitor plugs the portable unit at the interactive terminal equipped with ESPRO's *MyCollection* software.



- The bookmarked list is automatically uploaded from the portable unit enabling the visitor to review, modify and confirm his/her selection of items, preferred publication product and preferred media type.
- Once the details of the order are confirmed, the selected items are printed and bound on the spot, in the selected media, for the visitor to take home.

The main advantages provided by *MyCollection* over an isolated Print-on-Demand station are:

- Broader range of products, not limited to posters but also customized catalogs, CDs and other products that can be created from the digital data (images, text and audio) stored in the system for each work.
- Selection and ordering by the visitor while touring the exhibitions, right when a particular work grabs his or her attention, increasing the probabilities to order products in the moment of excitement.
- Higher degree of customization, allowing to add customized information (name, date of visit, etc) to the catalog or other products created from the *MyCollection* platform.

The road does not end here. New possibilities and developments that, up until now seemed unreal, will be integrated into completely new museum experiences. Museums will no longer be places to tour with stores to buy some merchandise but a whole new interaction between the art works and people, with many different ways to access information, enjoy art and take a part of the experience back home in an individual and customized way.

Biography

Jorge Simal is responsible for the HP Print-on-Demand initiative, Jorge oversaw the development of the solution that was implemented at London's National Gallery, Fratelli-Alinari exhibitions and other locations. Currently working with Espro and Vienna's Kunsthistorisches Museum to integrate on-demand printing into the audio-guiding system, the first such project to create a unique visitor experience in the museum environment.

Other initiatives in place include the development of a simplified workflow to digitize paintings and other artwork, and a solution to enable consumers create large format prints from their digital pictures at retail locations.

Jorge joined HP in 1994. He spent several years in San Diego, California, developing the first family of HP digital photography products (cameras, scanners and photo printers).

Jorge was born in Barcelona and holds a Master in Business Administration from the University of San Diego. He's also a graduate of Barcelona's Politechnical University in Industrial Engineering.