Towards More Innovative Museums

Bruno S. Frey and Lasse Steiner

Abstract The situation in which museums find themselves is not unlike many other parts of society. Creative changes come to mind but are restricted by tradition, bureaucratic rules, as well as self-imposed constraints by positioning as icons and engaging in a particular architecture. This chapter discusses several suggestions for innovative moves such as flexibility in pricing, broader lending activities, or the possibility to sell objects.

1 Where Can Museums Be More Innovative?

According to the weekly Economist (2013), “museums are doing amazingly well... but can they keep the visitors coming?” Museums are in strong competition to other cultural institutions, the entertainment industry, and other attractions such as the large number of festivals of one form or other or sites listed in the United Nations World Heritage List (Frey and Steiner 2011).

There is also the question whether the young generation growing up with the internet, so called digital natives, is still so much interested in seeing original artworks, often at high cost and hassle. They may prefer to visit museum collections online. Such change in behaviour would fundamentally change the role of museums. The actual place is no longer relevant; it simply represents the origin where the online experience comes from. Superstar museums (Frey 1998) may lose importance compared to the virtual experience. As so often, it may be argued that exactly the opposite takes place. The online consumption of art may induce people to seek the ‘real’ experience of seeing the original art collected in museums. This

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seems to be rather unlikely because the online presentation of art is of high quality, and the art objects may be seen more clearly than the original in the museum. A pertinent example is the Mona Lisa (Gioconda) in the Louvre. The rather small painting is almost impossible to see due to the hundreds of admirers blocking the view.

Our chapter considers various possibilities to make museums more innovative and therefore more attractive to visitors, and discusses the implications. We distinguish three different areas: Sect. 2 flexibility in pricing; Sect. 3 broader lending activities; Sect. 4 selling objects.

The possibilities for innovations in these areas will now be discussed in turn based on the economic theory of museums as summarized in Frey and Meier (2006).

2 Flexibility in Pricing

2.1 Entry Prices

Most museums use differentiated prices to enter the museum. They focus on personal attributes, in particular offering lower entry prices for young and senior visitors, as well as for members of the respective museum society. In contrast, economists suggest that the additional cost produced by a visitor (the marginal cost) and the extent of reaction to price changes (price elasticity of demand) should be taken into account. When the marginal cost of admitting one more visitor is zero it is economically efficient to offer free entry (Peacock and Godfrey 1974). This holds especially for institutions operating below full capacity. The quality of a visit deteriorates when too many people want to see an exhibition. Overcrowding results in queuing, noise, and even an inability to see the objects on display. Empirical evidence suggests that congestion costs can be significant. Maddison and Foster (2003) estimated the congestion cost posed by the marginal visitors to the British Museum to be as high as £8.05. Thus, if a museum is rather empty in the morning hours, the marginal cost (direct cost and congestion cost) of a visitor is essentially zero; there are only fixed costs of opening the museum and guarding the objects exhibited. From that perspective, no entry price should be asked because the museum is not burdened while the visitors enjoy a welfare gain by being able to see the exhibits. Entry prices should also be discarded in those periods of the year in which there are few visitors.

Potential and actual visitors react quite differently to changes in entry price. In general, persons with higher income, education and age are less sensitive to a price increase. In contrast, families with children, low-income groups, persons with low education and the unemployed are likely to reduce their visits to a museum if the entry price is increased. Accordingly, these groups of persons could be attracted to visit a museum by asking a lower price.

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1http://www.museocostarica.g
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Tourists have a low price elasticity, in particular for famous museums. To visit the Louvre when in Paris, the Prado when in Madrid, and the Vatican Museums when in Rome belongs to ‘the programme’ of most, if not all, organized tours as well as that of individual tourists. In many cases, tourists have spent large amounts of money to arrive at these and other cities, so that even a high entry price is small compared to these other costs. As a consequence, tourists could be asked a higher price than locals. This can also be justified by the fact that the locals pay income taxes with which museums to a large extent are financed. Today price discrimination based on residency is mainly applied by museums in developing countries, such as the National Museum of Costa Rica\(^1\) or the temples of Angkor Wat in Cambodia.\(^2\)

Few museums in developed countries sufficiently exploit the opportunity to ask tourists higher prices than locals. Annual cards may, to a limited extent, have such function. This is all the more surprising in the case of superstar museums such as the Louvre, Prado, the National Gallery in London, the Kunsthistorische Museum in Vienna, or the Vatican Museums. Most of the year, if not always, there are long queues of potential visitors. Instead of raising price and therewith securing higher revenue, admittance is rationed by having to book in advance on the internet. As there are nevertheless long waiting lines, scalpers get the opportunity to make money by selling overpriced tickets on the black market or even places at the beginning of the queue. Visitors’ willingness to pay for a more quick entry (instead of having to wait often in the plain sun) does in this case not benefit the museum but rather only the scalpers. The scarcity of space in these superstar museums should be rationed off by setting higher prices for tourists. This need not be to the disadvantage to tourists as a whole because the museum could use the additional revenue to extend the opening hours, or to enlarge the facilities. At the same time the museums could set lower prices for locals but preferably only when the museums are less crowded. Locals have more opportunity than tourists to choose the time at which they wish to visit a museum.

Another way to skim the willingness-to-pay of visitors, and therewith increase welfare (through additional revenue for the museum) is to charge different prices for two different waiting lines: one with a higher price and a shorter waiting queue and another with a lower price and a longer queue. Having two separate entry points into the museum approximates the differentiation between people with a low price elasticity of demand, who should be charged higher prices than those with a high elasticity of demand.

\(^2\)http://www.telegraph.co.uk/travel/travelnews/11434648/Should-foreign-tourists-pay-more-than-locals.html.
2.2 Exit Prices

Exit prices are an innovative way to charge visitors of a museum (see also Frey and Steiner 2012). Instead of charging visitors when they enter the museum, exit prices are charged when they leave it. The more time someone spends in the museum, the higher the price she or he pays. Exit prices (the so-called car park model) have rarely been considered in the debate about museum admission fees so far. This is surprising, as they lower the entry barrier to visit and attracting more visitors is one important goal of many museums.

To enable visitors to make a well-considered decision on the length of time to stay, museums would have to make sure that visitors knew that there was an exit price before they entered. The museum may indicate every 30 min costs 5 euros. The price does not have to be calculated discretely; it also can be calculated continuously, for example, per minute. The price a visitor has to pay for an additional minute can be constant or decrease with time. Decreasing rates encourage a longer visit since the average-cost-per-minute is decreasing. The scheme is not difficult from the administrative point of view as machines can easily do the pricing. One change is that a booth would have to be moved to the exit.

One critical but usually disregarded characteristic of a museum is that the visit is an experience good. Experience goods pose difficulties for consumers in accurately making consumption choices, as it is difficult to observe product characteristics, such as quality, in advance (Nelson 1970). This characteristic can justify charging the visitors of a museum when they leave. Thus, exit prices have the major advantage that they take into account how satisfied the visitors were with the visit to the museum. As a side effect of being more satisfied, visitors may be willing to spend more money at the museum shops and restaurant. Moreover, an exit price is considered to be less unfair than an entry price. Those staying longer have profited more and may find it fair to pay more than somebody staying only for a short period.

Exit prices also lower the external effects, namely congestion costs, imposed on other visitors. The more time that a visitor spends in the museum, the more cost she or he imposes on other visitors in terms of physical stress. A relevant additional cost refers to the humidification of the air affecting the exhibits in a strongly negative way. As mentioned above, congestion cost can be significant. In order to account for the negative effects, it is justified to pay more the longer one stays. Furthermore, the introduction of an exit price may be a good advertisement for the museum due to the media coverage of the innovative pricing scheme.

The most common argument against exit prices is the incentive to minimize cost by rushing through the museum. This conflicts with the idea of a cultural experience being independent from economic necessities. However, by applying decreasing marginal rates per minute, the total price a visitor would have to pay has a maximum boundary (especially if the marginal rate is zero after a certain amount of time). Even if the visitors lose track of time, they never pay a punitively high price because there is a maximum price. By explicitly indicating this maximum price at the entry, the perceived time pressure and incentive to rush can be mitigated considerably. When discussing them with entry induced by high entry prices, visitors might feel obliged to stay longer.

It has to be mentioned that many museums, which provide low-cost, overcrowded museums with free entry, can also be charged with paying for a cultural experience. An example 15 min for Da Vincis, but paying for a cultural experience is acceptable to visitors.

2.3 Voluntary Contributions

In addition to varying the cost and price elasticity, making a voluntary donation to any museum can also provide an important British museum.

A voluntary contribution for instance, can be made by many visitors, even when the law prohibits donations. The offer may be made on the spot, as part of the entry price, as part of the ordinary entry price, or as part of the museum’s exhibits. Most persons who pay a "preservation" charge belong to the additional cost concept.

A voluntary contribution is an important source of income for museums. It is important to be fully aware that they are asking for voluntary contributions. Most visitors are prepared to pay, as the museum’s social occasions, for instance, are guided by an acceptance of the cost.
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2.3 Voluntary Contributions

In addition to varying the entry and/or exit prices following differences in marginal cost and price elasticities of demand, museums may consider inducing visitors to make a voluntary donation. Such a procedure allows museums to raise revenue even when the law prohibits them to impose an entry price (as is the case for many important British museums such as the British Museum in London).

A voluntary contribution can be requested before entering a museum. This can, for instance, be done by requiring visitors to get an entry ticket and telling them that they are free to give as little or as much as they choose. Most visitors immediately ask what the "normal" sum is, in which case the museum should provide a price anchor. The cashier has to decide quickly whether to indicate a lower or higher amount depending on the considerations discussed above. It is also possible to ask for an additional (small) sum for a specific purpose. For example, the cashiers at the Royal Museum of British Columbia in Victoria asks entrants whether, in addition to the ordinary entry price, they are prepared to pay two Canadian Dollars to 'preserve exhibits'. Most persons (around 80%) are willing to do so though it seems that 'preservation' belongs to the core activity of a museum and should not be financed by an additional collection (see Noble 1970).

A voluntary contribution can also be asked when persons are leaving the museum. It is important to "channel" the persons exiting in order to make them fully aware that they are invited to make a contribution. This could be combined by asking them before leaving to respond to the question "Did you like our museum?" Most visitors are prepared to contribute if they liked the museum as the situation of reciprocity is mildly imposed. Transparent boxes are possibly the best way to secure the greatest donation amounts since people are less likely to put money into 'a black hole' and are affected by the perceived donation behaviour of previous visitors. Unlike museums on the American continent, European and Asian museums rarely actively seek the support by the friends of the museum by providing social occasions, for instance by allowing them to visit a special exhibition first and being guided by an expert of the museum.
3 Broader Lending Activities

The lending activity between museums with the goal to undertake special exhibitions (which today is a major part of the activities of many museums) is not organized in an explicit market. It is impossible to find explicit prices for lending objects, for instance on the Internet. Rather, the exchange of objects takes place in an informal way, based on the personal relationships between the directors. Essentially, it is based on a quid pro quo: another museum receives an exhibit with the understanding that it is willing to reciprocate in the future. The implicit price is the expectation of reciprocation. Such an informal exchange strengthens the position of the directors, while it excludes outsiders. With few exceptions (for example for Russian museums which are in dire financial conditions) the exchanges are undertaken free of charge but sometimes the lender handles the cost of restoring the object.

The crucial question is whether an explicit market would result in an efficiency gain, and the extent to which it might produce significant external costs. This may well be the case but such costs should be explicitly discussed rather than rejecting the idea out of hand.

Museums exchange originals, that is, the lender wants to have a particular unique object attributed to a particular artist or historical period. This is surprising in view of the fact that today it is possible to produce identical replicas. Why should not such a replica be exchanged? Take Michelangelo’s Pietà which was shipped from the Vatican to New York’s World Exhibition. In view of the danger of being negatively affected by the transport or even get lost, an identical copy could have been sent. By definition, the beauty of the Pietà is in no way affected because no viewer is able to distinguish it from the original. The normal answer is that a copy does not have the ‘aura’ of the original. But the concept of ‘aura’ is highly questionable. For instance, a painting is often attributed an ‘aura’ even if it later turns out that it is a copy. The term ‘aura’ thus seems to just mean that it is an attribute of the original. Those arguing with the concept of the ‘aura’ should therefore carry all the mental cost when an original with its ‘aura’ gets damaged or is even lost while it is lent out. Would it not be preferable to exchange identical replicas?

The case of the Chauvet Caves shows that a broad range of visitors accepts exhibiting identical copies. The Caves of Chauvet with its prehistoric art were discovered in 1994 but immediately concealed to public access. Instead a full-size facsimile of the Cave, the so-called ‘Faux Lascaux’, was built nearby and creates huge numbers of visitors—who know that they don’t get to see the original.

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The exchange of copies would also overcome the legal restrictions faced by many museums prohibited to lend out anything (though such restrictions are not always fully observed).

4 Selling Objects

One of the major goals of museums is to present a well-arranged collection. At the same time, all museums have a stock of holdings with pieces that are not suitable for display. Major museums of art, such as the Prado, never exhibit over 90% of their holdings. A large part of their collection remains in the vaults for good and is never shown to the public. As an exchange with other museums at present is quite restricted since it depends on the personal relationships of the directors, it would make sense to put the objects never exhibited on the market. This might not be possible with all artworks, as some donations were given with the restriction they should not be sold. The revenue gained would allow museums to acquire objects important for their own collection, or for any other purpose considered important to the museum directorate. At the same time, the objects sold may be a valuable addition to minor museums (see Montias 1973; Grampp 1989). Besides restrictions on donated artworks museums directors often use legal and institutional constraints as a shield to oppose a flexible approach for the sale and purchase of artefacts. Being risk averse, they are not willing to undertake commercial transactions, which would put them under public scrutiny. This is particularly the case if they are allowed to devote the proceeds of sale to the purchase of other artefacts. Relying on public funding does not provide any incentive toward de-accessioning.

The next section deals with the issue whether the innovations suggested have a chance of being put into practice. As will be seen, this is unlikely to be the case.

5 Museums Are Conservative

5.1 Commitment to the Past

Museums are institutions conserving and cherishing the past. This is the very reason for their existence. They serve to collect what exists and is considered worth preserving (Peacock 1994). Museums are not future oriented, as they do not create but only preserve (but there are some art galleries that sometimes commission works of art). Despite this inherent feature they may be innovative with respect to the way they present their collections. This seems, however, to be a difficult task for them as shown, for example, by the long time it often took them to

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4This line of thought goes back to Alan Peacock.
introduce cafeterias, restaurants, museum stores, and other amenities to make a museum visit more attractive.

5.2 Government Rules

Another reason why museums are conservative is their dependence on government. Institutions matter greatly in that they strongly determine how museum directors and other employees act. Most museums as part of the public sector are heavily subsidized by the government and are subject to many regulations. Large museums in most cases depend crucially on the financial support by government making them subject to a variety of political influences. Smaller museums in most cases have little revenue of their own and therefore are more or less a part of the local government administration. The public sector is known for its conservative tendencies and is rarely considered to be creative and progressive. Indeed, bureaucratic rules strongly restrict the activity space of museums. In the typical European model, if museums are able to raise their revenue by changing its entry or exit pricing, if they get additional voluntary contributions, or if they sell unused parts of their holdings, they run the great risk of losing these additional revenues. In a bureaucratic setting, the various subunits are generally not allowed to keep additional revenues but they are considered to be part of the public revenue solely administered by the central authority. This means that the directorate has little incentive to creatively search for additional revenues even if this was easily possible.

An alternative to reduce the influence of the government as originator of direct subsidies to museums would be to establish a system of vouchers (see Peacock 1993; Frey 2008). The recipients of these vouchers could be, for example, every resident of a country, city or all taxpayers. While the vouchers replace a part—or all—direct government subsidies to museums, their total value could be freely determined. The recipients use the vouchers to pay for access to selected museums the government deems worthy and puts on a corresponding list. The museums can then cash the vouchers they received at the Treasury. Vouchers incentivize museum directors to run exhibitions the population appreciates. These are most likely more innovative than the art preferred by more conservative bureaucrats. Vouchers do not necessarily induce suppliers of art to produce ‘popular’ art only. They can also display exhibitions only a minority is prepared to spend a large part of their vouchers on. As the directors can keep additional revenues, they are induced to advertise their services in an attractive way (and gain more visitors). Recipients of vouchers have a strong incentive to use them and visit a museum instead of wasting them. Thus, they are a suitable means to attract people who rarely or never visit a museum. Even if a voucher is not used by the recipients themselves, they could be given to a friend or sent to a museum.

Vouchers reflect the preferences of the population more strongly than direct subsidies. They also induce museum managers to cater to non-standard demand for the arts and to be more innovative.

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Vouchers reflect the preferences of the population more strongly than direct subsidies. They also induce museum managers to cater to non-standard demand for the arts and to be more innovative.
5.3 Constraints on Behaviour

A third reason why museums tend to be conservative is partly self-imposed. Superstar museums have become icons whose features have been defined by tourist organizations in travel books and advertising. This position is undermined if an iconic museum is very creative as the visitors expect to see a particular kind of museum with a particular kind of exhibition and are disappointed if they are confronted with a ‘new’ museum.

Many museums pride themselves of their architecture. Famous architects are hired to establish uniqueness in order to attract the attention of the public. This mainly applies to superstar museums. A case in point is the spectacular Guggenheim Museum in Bilbao designed by Frank Gehry. The building clearly dominates the content of the exhibitions. There are also less well-known museums tending to rely on architecture as their defining feature. An example is the Beyeler Museum in Basel. It advertises itself as a Sammlung der Klassischen Moderne im Museumsbau von Renzo Piano (Museum of Classical Modern Art in a building designed by Renzo Piano). A new architecture such as Renzo Piano’s supports creativity but once established the same strong reliance on the architecture reduces the scope for changes.

6 Conclusions

The situation in which museums find themselves is not unlike many other parts of society. Creative changes come to mind but are restricted by tradition, bureaucratic rules, as well as self-imposed constraints by positioning as icons and engaging in a particular architecture.

The suggestions made here for innovative moves as well as other new proposals for museums are therefore unlikely to materialize in the new future. However, newly founded museums have more freedom to pick up some of the ideas proposed here which then puts pressure on the established museums to follow suit. In this indirect way, museums may become more creative over time. A well-rounded discussion of the advantages and disadvantages of creative ideas is a prerequisite for their useful application in the future. It is important to learn from other institutions and countries.

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Technological Heritage

Ilde Rizzo

Abstract The chapter is about cultural heritage service technology, the scope and potential of an enhanced digital cultural heritage service. The analysis of the effects of digital cultural heritage services offers also a mind the and their business models an overview of the heritage.

1 Introduction

The chapter aims at investigating the cultural heritage (CH) service technology, museums, libraries and related services—from Information and Communication Technology (ICT) to Information and Communication Technology (ICT). The chapter also includes a discussion of the role of digital cultural heritage sectors (e.g., museums) in developing new business models.

When moving to the digital era, a number of questions arise. How do museums, libraries, and other cultural heritage institutions adapt to the digital age? What are the economic implications of digital technologies for the cultural heritage sector? The chapter aims to provide answers to these questions by examining the current state of digital cultural heritage services and the potential for future developments.