RUECKER, Stan, RADZIKOWSKA, Milena and SINCLAIR, Stéfan. *Visual interface design for digital cultural heritage*: *A guide to rich-prospect browsing*. Farnham: Ashgate Publishing. 2011.

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There has been, in recent years, a noticeable process of maturing within digitisation projects. Whilst I leave it to others to write the fascinating history of such projects, a particular indicator for me is the gradual move from coffee-table projects to those of deeper scholarly use. Many of the early projects (but definitely not all) are marked by their poor user interfaces which appeared to carry a lot less thought and effort than that which had gone into the digitisation project. It is, therefore, pleasing to find such a book as this.

There isn't a separate introduction by the authors and they jump straight into the body of the book, but chapter 1 – Introduction to rich-prospect interfaces – is really the main introduction to the book. Their intention is to discuss their efforts, as designers, programmers, and scholars in the humanities, to explore theories about how they can improve people's experience with working with digital collections and documents and they take the view that their approach benefits from their multi disciplinary perspectives.

Their starting point, some ten years ago, was the idea that retrieval systems, or search engines, are often provided to users when dedicated browsing technologies would be more congenial. The Google single box model tends to be much easier and faster to design and develop than meaningful browser interfaces, but there is a danger that the user may not realise that a more nuanced way of exploring a dataset is possible. They propose that providing the user with a wealth of well-designed visual information is better than attempting to artificially or arbitrarily restrict the amount of information provided, especially if certain features of the visual display can be easily controlled by the person using the system and such controls are presented in an intuitive way.

In many of the experimental interfaces discussed, the home page displays a visual representation of every item in a given collection, combined with tools for manipulating the display. It is these kinds of interfaces which form the "rich-prospect browsers". Seven principles are listed which rich-prospect browsers should embody. In brief, the primary page should show a meaningful representation of every item in the collection, i.e. the images; the user should be able to adjust and reorganise the images; there should be links from the image to more data; sufficient metadata should be provided; more than one image should be available if possible; the visual organisation of the images should be a meaning that is apparent to the user; and the user should be able to mark the images in order to keep track of them even when reorganised by the user.

Chapter 2 – I see what I can do: affordances of prospect – examines the authors' contention that the idea of combining a complete set of item representations (often images) with emergent tools for organising them, while not unique in the literature about interface design, has nonetheless suffered from not being sufficiently grounded in a theoretical framework that can help explain why these kinds of interfaces are desirable and make intuitive sense to people. The chapter

examines the concepts of affordances prospect in the light of the authors' experiments with various kinds of rich-prospect browsers. The chapter looks at the subject from a view point of Appleton's concept of prospect, but note that one of the fundamental objections to his ideas is that they are predicated on a universalism in human response which is currently unfashionable in academic circles, particularly among post colonialists. Appleton relies on biology as the basis for his universalism and, by basing his theory on the survival value of prospect and refuge, Appleton suggests that natural selection has played a significant role in allowing the continued survival of those members of the species who were able to identify and capitalise on situations where these two factors were crucial. It is pointed out in this chapter that most retrieval and browsing interfaces keep the underlying data in a kind of black box from which it can be difficult to assess the scope and nature of what is inside. In contrast, the insights available to the user of a rich-prospect browser are primarily related to indicating the bounds of discourse that inevitably been established by the collection i.e. the terms under which the items have been collected, labelled, categorised, and otherwise organised. These areas of direct insight form the following categories: contents; structure; context; features; limitations; connections; trends; anomalies; navigation; reminders; processes; reassurance; and reduced helplessness.

Affordances can be complex, taking forms that are nested or sequential or they can be relatively straightforward. Prospect is a view of the world where enough information is available for the perceiver to understand the terrain and a sense of what it affords, without necessarily seeing all of the details. It is in the details of the metadata for the collection that the principles of rich-prospect interface design come into contact with the kinds of constraints and conditions that need to be addressed as an intrinsic part of the design process. Whilst complicated, these details serve to test, validate, and refine the concepts in a way is otherwise impossible.

In Chapter 3 – Is this thing working? The study of new affordances – the issue of category error is introduced which is a fundamental difficulty in studying new affordances. Category errors occur when two items are compared which simply cannot be compared such as apples and oranges or fish and bird etc, a strategy is outlined for substituting the comparison of affordance strength for the comparison of affordances, and a vector model of affordance strength is developed and explained. This chapter concludes with some interesting user studies including a pill identification system and a system for text mining for literary scholars. (Texttiles).

Chapter 4 – I never forget a face: meaningful and useful representation of items – examines one of the principles of rich-prospect browsing that the default interface should show a meaningful representation and not some kind of hierarchical system. Whilst relying on images perhaps the most obvious approach for meaningful representation of a collection of items, it is not the only approach and the authors outline a system which uses coloured dots as a fundamental unit of representation. (Mandala browser). Whatever the chosen display, the question remains as to how much information is necessary or potentially useful and tradeoffs become necessary between the choice to display as much as possible in

the hope that it will prove useful to someone, and the structuring of the information in such a way to increase prospect.

Chapter 5 – Textual markup for digital collections – looks at issues related to collections with markup, including levels of interpretation provided by tagging; possible new opportunities provided by the rich-prospect interface to the tag set; and the possible value of having some form of prospect on the actual tagging of the documents. The chapter may be summarised as a response to the question: why is prospect on the markup, as opposed to prospect on the content, potentially useful?

For me a particularly interesting discussion in this chapter is on the subject of dates. Most digital collections include date information and this can sometimes be very complex. So, whilst a start point and end point can be a range of time that is very precise, such as the signing of a treaty, or the publication of an article in a daily newspaper, or it may be merely approximate, or even be a range that only contains the start date, for example "by 1900 women accounted for 12% of the library staff in Britain....." and chronologies, timelines, timefields, scattergrams and others are discussed.

Chapter 6 – The design of new interface tools – recognises that one of the primary problems with any rich-prospect interface is in risking overwhelming the user by showing too much information at one time. Thus designers must pay special attention to strategies to eliminate this sense of being overwhelmed by the display. This is an interesting point, even though it might seem obvious. It is this very issue in earlier days of computing (and maybe even more so now!) that would put off many of those beginning to use the "new" personal computer word processors and other packages simply because they were overwhelmed by the information that appeared all over the VDU.

Methods that aren't rich-prospect include hierarchies and taxonomies. The problem with having a user traverse a hierarchy, indexing system, or other taxonomy is that the information is effectively hidden behind the metaschema. This means that those who are not familiar with the taxonomy will find the system becoming a barrier rather than a tool, particularly as such items can usually only occupy one position at a time in a hierarchy. Some solutions have been developed for these problems including automated indexing systems and attempting to profile documents by statistical methods. One limitation in rich-prospect browsing is the amount of available screen space and the chapter considers large-format displays including the size that one might find in sports stadiums! Rich-prospect tools allow users to modify the structure of the display through processes such as searching, subsetting, grouping, and arranging items. This chapter discusses the design issues involved in creating an appropriate set of rich-prospect interface tools where the user of the interface not only has the opportunity to draw on the previous work of other users, but the ability to store the results of the current session for possible access by later users.

The final chapter – Chapter 7 Conclusions – gives the authors the opportunity to remind the reader of the book's several purposes which were: to introduce the principals of rich-prospect browsing to a wider audience of people, working with

digital cultural collections, with the hope that they would implement these ideas in their own collections; to show why this set of principles represents a useful way of looking at the design of browsing tools; to add to the ideas of prospect and affordances by considering them in the light of the various tools and experiments that the authors had run on them. Did they achieve these aims? In my opinion, a definite "Yes".

A substantial set of references is included as well as a reasonably comprehensive index. This book includes quite a few black and white illustrations, mostly screen shots, which are well chosen and add to the understanding of the text.

It is important to understand that the book is not the beginners' guide to visual interface design for browsers! This is not a book that has been written to be read by all. Indeed, there are some, in my view, overly long sentences which may tend to confuse some readers, particularly where a complex concept is being propounded. (Some of these overlong sentences are deliberately reflected in this review). However, I urge the prospective reader not to be put off by these comments, but to persevere. Much of the book is written in an extremely readable style (perhaps just one of the authors is the long-sentence lover – the authors do not identify their specific contributions!)

Referring to a work as "important" or "adding to the literature in the field" have become clichés. I mention this because in now repeating both of these clichés, I feel I must assure the reader of my sincerity. Certainly this is a book to be read by those embarking or seeking to improve a digital cultural heritage project, but this scholarly work well deserves to be read by a much wider audience. This work should be on the bookshelf of all who design software for whatever purpose, not just digital cultural heritage and rich-prospect browsers.

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