Navigating in Flatland:
mapping relations / making relationships

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What does it mean to say that social classifications are "*flat*"? And why should visual resources professionals be concerned with providing their clientele with tools for navigating in flatland when we all know that the world is round?

I'm going to begin by inviting you to perform a thought experiment that will *visualize* the distinction between the hierarchical structure of traditional taxonomies and the flat organization of social classifications. Imagine, if you will, the curvilinear representation of space, and of the relations *between* points in space, on the surface of a globe. Now, imagine the network of rhumb lines crisscrossing the surface of a pre-modern maritime chart. Whereas a globe presents a static, hierarchical abstraction of space—akin to the perspectival lattice of the Renaissance—the portolan charts employed by mediaeval mariners to navigate the smooth spaces of maritime trade employ visual landmarks (usually coastal features) as points of reference. The continuous, flat surface of the portolan chart amounts to a *psychological* representation of space.

As those of you who index images of contemporary art on a regular basis can attest, cartographic metaphors abound in contemporary art practice: from the situationist topographies of Guy deBord and the documentary site maps of the conceptualists to the recent conspiratorial blueprints of Canadian Janice Kerbel, maps and mapping are persistent tropes in contemporary art practice. The cartographic metaphor is a particularly fortuitous one, then, for conceptualizing the relationships described by user-generated classifications of contemporary art.

The work of Robert Smithson, in particular, charts a series of thought-provoking intersections between the methodologies of cartography and those of classification. In her fascinating study of Smithson, *Learning from New Jersey and elsewhere*, art historian Ann Reynolds (2003) informs us that "Smithson rarely used maps in traditional ways. … for Smithson, she writes, '*the mapping followed the traveling*' [my emphasis]" (p. 93). Unlike the uniform space of a conventional map, Smithson's psychogeographies never present a pre-given *container* into which the artist's travels are neatly deposited; rather, Smithson's *travels* determine the shape of his space. His space is never hierarchical, but stacks and overlaps multiple perspectives onto a continuous plane, a device recalling the psychological spaces described by portolan charts (e.g., *Untitled (Map on mirror—Passaic, New Jersey)*, 1967).

A particularly compelling illustration of the fertile connections between cartography and classification mined by Smithson, *A Heap of Language* (1966), distributes near synonyms across the meridians of a piece of graph paper, not as a list or tree, but literally as a heap or pile: an aggregate suggesting analogies with the non-hierarchical organization of folksonomies.

Another work situated at the crossroads of cartography and classification, *A Surd View of an Afternoon*, from 1970, projects the artist's recent projects onto multiple and incommensurable spaces; the result is a sort of cognitive map. *A Surd View* suggests new relationships *between* artworks by juxtaposing seemingly incompatible projects. I invoke this work both as an idealized graphical user interface for a visual tagging utility (wouldn't it be cool if our colleagues in IT could create an interface for visual searching that would facilitate the same kind of *intuitive* cognitive mapping that Smithson has performed here!) and as a diagram of the participatory model of knowledge creation facilitated by social classification software. Smithson historian Eugenie Tsai notes that "the self-conscious pluralism" of *A Surd View* suggests analogies with "the practices of many collective groups as well as smaller artist-run initiatives." In other words, the labile network of *personal* associations which Smithson documents reveals that such subjective connections are fully compatible with emerging models of *community* praxis.

I can't think of a more compelling demonstration than *A Surd View* of the utility of non-hierarchical classifications for facilitating what Margaret Graham (2004) has

called “browsing for inspiration” (a motivation that I think we can safely assume underlies searches performed by users who are, increasingly, also participants in precisely those “collective groups” that Graham speaks of, even though this behaviour remains relatively undocumented in the literature on social tagging to date; indeed, the potential for social tagging to facilitate knowledge *creation* remains, *in general*, relatively unexplored: most researchers assume that, as with traditional descriptive cataloguing data, users employ tags as a means for locating specific image records, rather than as a way of creating meaningful connections).

I am now going to walk you through the tagging utility developed by the Working Group of the **Fine Art Digital Imaging System** (a.k.a. “FADIS”).

The FADIS Working Group, composed of representatives from a growing number of institutions contributing to the development of this multi-institutional repository and integrated courseware system, meets regularly to discuss common challenges and to plan for future renewal projects. The Group’s tagging project evolved directly out of a conversation with Meghan Musolff that I had at last year’s VRA conference in Kansas City: Meghan’s enthusiasm for user-generated indexing as well as her conviction that users have something *meaningful* to contribute to classification, was nothing less than contagious. Following our meeting I started researching the literature on folksonomies, and was quickly convinced that the FADIS user community would derive significant benefits from the implementation of a social tagging tool. Primarily, I was attracted to the possibility of enhancing access to materials in FADIS for non-subject specialists in preparation for the new authentication system that would extend access to the database to all registered students and faculty at the University of Windsor (access had originally been limited to the School of Visual Arts).

Although further research and development into indexing conventions for describing visual materials that serve the teaching and learning objectives of users in disciplines outside of fine art may eventually be necessary in order for FADIS to meet formal cataloguing standards, tagging presented a number of advantages over the various features that the Working Group had previously developed for incorporating user-generated content and indexing into FADIS and for improving subject access.

It had originally been my hope that administrators would enhance accessibility to FADIS by adapting vocabulary contributed by faculty, who have the ability to edit FADIS cataloguing records and to contribute keywords to the "Subject" field. The example of expert tagging that we see here aligns subject access with learning objectives and the curriculum (these terms were generated by a faculty member at the University of Toronto).

Although I have learned a great deal from studying subject terms contributed by faculty—as this example shows, I have tried to follow the example of faculty in generating keywords that match the curriculum—however, classification is a subjective activity: the cataloguer cannot speak *for* the user, and generating meaningful and consistent keywords is another labour-intensive process. Furthermore, keywords are not currently exposed to students, and are, therefore, of limited value as a discovery tool.

Another FADIS utility which preceded the availability of the tagger is the Portfolio tool which FADIS developer Gordon Belray introduced in the spring of 2007. The Portfolio tool allows faculty to upload and describe content (these images do not enter the general collection, and are password protected): a brief cataloguing record is generated automatically when faculty upload images, which includes a Subject field. This field has proven useful as a mechanism for facilitating retrieval of documents in the personal collections maintained by faculty, and has provided further food for thought for the members of the FADIS Working Group contemplating future keywording or subject cataloguing initiatives: particularly as these projects relate to the description of unique materials.

Despite the benefits associated with these tools, my conversations with Meghan convinced me that the user community at the University of Windsor, which is primarily comprised of students and faculty in the *studio* art program, and others "outside" the art history ghetto, would benefit from social tagging capabilities that would empower them to contribute vocabulary that would counter what Jennifer Trant has called "the curatorial voice of art history" (2006), a voice which dominates the data in FADIS. Such a project, I hoped, would help to "bridg[e] the semantic gap" between *professional* discourse and the *personal* voices of users, while at the same time responding to the current emphasis on learning-centred resources that facilitate knowledge *creation*.

Finally, it seemed to me that tagging offered the possibility of transforming what I like to call selfish searching into shared access points (By selfish searches I mean searches performed by expert users who, though at times vocal about the unsatisfactory performance of a repository are unwilling to expend the necessary time and energy in supplying feedback that could assist system administrators in correcting and enhancing navigation. Social tagging offers the possibility of transforming the search terms employed by faculty and other experts into common access points without undue burden to the user).

Early on in this research and development process it became evident to me that, as with other collaborative undertakings of the FADIS Working Group, circumstances would dictate that our project respond to published research findings rather than grow out of original research, and that our utility would have to evolve out of *trial and error* as well as through user feedback. The tool would also have to be implemented in stages. (What we will be looking at represents phase one of the FADIS tagger.)

Therefore, I set to work studying the literature on social classification as well as the sites of museums incorporating social tagging components. I was particularly impressed by the Philadelphia Museum of Art's social tagging utility, whose tag cloud emulates the familiar clustering and weighting devices found on popular social websites such as *flickr*. Not only is the PMA's interface legible and easy to navigate, it is *familiar*.

The PMA's site provided FADIS Developer Gordon Belray with a template for the first phase of the FADIS tagger, which he launched on November 30, 2006.

A sample search result in the FADIS database brings up ten thumbnail images of work by the N.E. Thing Co., who's co-president, Iain Baxter&, is Professor Emeritus at the University of Windsor. To view or add social tags, users are required to first click on a thumbnail image to open the detailed cataloguing record. "Add a tag" appears in orange below the cataloguing record.

Clicking on "Add a tag" opens a panel that prompts users to enter new tags or edit existing ones, and which includes a disambiguation tool (the question mark icon in yellow). Clicking on the disambiguation icon open this text panel, which includes detailed information about social classification as well as guidelines for adding tags. The tagger allows users to contribute single terms, but also multiple terms, which may take

the form of phrases, related titles or artists (this has created some problems, which I will discuss shortly). Tags are hyperlinked so that users may perform searches by simply clicking on the tag.

At this point, tags only display in FADIS in search mode (there is no tag cloud available at this time). Tags appear below cataloguing information that appears to the right of the medium view of image records in blue. Because there are too few tags at this point to make filtered searching practicable—in most cases a search restricted to tags would retrieve the same image that the user has already found—Gordon Belray and I decided that we would treat tags as search terms: that is, tags are added directly to image records so that hyperlinked searches retrieve a *combination* of image records both with *and* without user-generated tags. Basically, hyperlinked searches are full-text searches: tagged images are not ranked at this point nor is disambiguation available. The major advantage associated with hyperlinking tags, even in a preliminary implementation (as opposed to conventional full text searching), is that tags enhance access by inviting new data that may not have been included in the catalogue record, inviting users to consider alternative search strategies by exposing this data, and by transforming knowledge discovery into a *creative* process.

A hyperlinked search for the tag “horizon” retrieves 47 images, including both images with and *without* tags.

So far, “policing” has not been an issue; however, should a user contribute an inappropriate tag, their identity is tied to the tag, as I will show later, so that it is possible to trace “offenders.” Moreover, administrators have the ability to edit and remove all social tags, as we see here. Users currently have the ability to edit their own tags, although I would like to see full editorial control extended to the entire community.

Overcoming what Thomas Vander Wal has called the “cold start problem” following the implementation of a tagging utility is the greatest challenge that our group faces. Despite multiple announcements to faculty and fellow FADIS administrators in the form of emails, personal communications, status reports at faculty councils, and information literacy seminars, feedback has been limited so far and *communication*, both

within the Working Group and with the user community, remains *the number one challenge*.

Nonetheless, Working Group has encountered significant successes along the way, and I believe that the tool shows great promise. The tool *is* being used by a combination of students at different institutions, faculty, cataloguers, and student assistants. Furthermore, even in the absence of concrete data on user behaviour it is clear that *recognizable voices* are emerging through the tagging process: through the selection of images tagged, in the selection of vocabulary, and in the emphasis placed on one or more "level" of image attributes.

I can also report that I have had great success in employing student assistants to contribute tags to the contemporary collections in FADIS. I have been pleasantly surprised by the relevance and consistency of the terms added by students. As well as the creativity displayed in attribute selection.

In my experience, student assistants tend to add single terms that emphasize either the *appearance* of a work or the processes and techniques employed in its genesis (not through any cajoling on my part, I might add): in other words, descriptors corresponding to what Margaret Graham has termed the "low-level attributes" of an image. These attributes are frequently absent from the original record; and therefore represent valuable access points for students in the studio art stream who may be employing "fuzzy criteria" to "browse for inspiration" (Graham, p. 321). The examples included here give an indication of the nuanced interpretations that my assistants' tags convey; these examples group image records by physical attributes (for example by hue and by texture).

Here a student has grouped three images by applying the unconventional term "awesome": this descriptor communicates information about the images so clustered, but also, and perhaps more importantly given the ascendancy of the community praxis paradigm, it tells us something about the subjectivity of the user, and communicates something about the evolving user community.

In spite of these *positive* results, there are also preliminary indications that the FADIS tagger leaves room for improvement: for instance, redundancy is frequently encountered even where tags have been contributed by users employed to tag.

Furthermore, while art students are quite adept at describing the formal qualities of works, their tagging behaviours suggest that sometimes their creativity can work overtime. The result is sometimes spoonerisms.

Another challenge that faces the FADIS team will is harnessing the often rich data expressed in phrases, which currently present a barrier to recall, and may contribute to bias (although the majority of phrases added to date are mostly of a descriptive nature).

Interestingly, I have also come across examples of tags that communicate student feedback in response to information disseminated in the classroom: is this preliminary evidence of an emerging social conversation? Here we see how user identity is tied to tags via the tag field embedded in the cataloguing record, visible here from the backend (this information is only visible to administrators). Studies of user motivation suggest that it may be productive to expose the user profiles.

To conclude, attempting to evaluate the relative success of the FADIS tagging project to date is problematic. In attempting to establish assessment criteria one invariably runs up against the challenge of defining what "relevance" means in the local context(s): researchers often assume that users are searching for a specific work (e.g., Enser and McGregor [1992] found that 70% of requests submitted to the Hulton Deutch CD Collection were for specific images), whereas Graham (2004) notes that "some do not want specific images but want to browse for *inspiration*" [my emphasis] (p. 321); however, inspiration is difficult to measure.

In any case, there is clearly room for improvement. As the volume of tags grows, the FADIS Working Group will have to generate innovative solutions for providing filtering, disambiguation and navigation capabilities. But the major challenge facing the FADIS tagger remains for the members of the Working Group to communicate effectively with users (by promoting the capabilities of social tagging through existing information literacy services and by expanding these programs as necessary [e.g. *going into the classroom*]). Communicating with faculty and reviewing their feedback on a regular basis is also essential. However, the greatest challenge of all will be to secure the buy-in of colleagues in the rapidly-expanding membership of the Working Group: the success of a social tagging utility ultimately hinges on the support and understanding of your colleagues.

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