

## Slide 1 **Open sesame!**

I am here today to talk with you about some of the changes affecting libraries, Universities and ultimately you. In preparing for this class, I was searching for a Connection between my world and Salvador Dali. My knowledge of Dali is very much the layperson's knowledge and my limited research didn't provide me any easy connection. However, I found inspiration in Dali's openness, intellectual curiosity, collaborative ventures, and his willingness to experiment with new media and forms of communication. And that is why I am calling my presentation to you *Open Sesame: Dali's Philosophy as Intellectual Precursor to the Open Movement*

## Slide 2 **Dali Illustration for Dante's *Divine Comedy***

As you know by now probably much better than I do, Dali was a provocative, complex man and artist who challenged everyday assumptions, critiqued the world around him, and forced open the doors of the subconscious mind. His work embraced psychoanalysis, modern science, and religious mysticism, and in many ways he redefined the boundaries of art, fashion, and popular culture.

I recently watched a video of his January 20, 1952 appearance on the popular TV show *What's My Line*. Have any of you ever seen that show? Let me briefly explain how it worked.

On this episode, Salvador Dalí signed in as the mystery guests and was assigned the line "artist" and identified as "self-employed." But the fascinating thing about the episode is that Dali answered almost all the panelists' questions in the affirmative, which completely threw them off. He didn't do this to mislead them, however. It merely reflected his vast intellectual curiosity and creative output. In my opinion, Dali personified the international, open-ended, anything-goes outlook.

When contemplating Dali and his influence on the world's culture, I am sure that he would have been supportive of the international movement towards openness in support of research and innovation.

### **Slide 3 Today's goals**

Understand a bit about Open Movement: Open Source, Open Access/Open Data, Open Content, Open Courses, Open Education

Discuss what it all means

### **Slide 4 The Open Movement**

A range of 'Open' philosophies and models have emerged recently, motivated by the desire to share freely, prevent duplication of effort, avoid restrictive (Copyright) practices, promote economic efficiencies and improving access. Many of these have been driven by and created by communities that recognize the benefits to themselves, and sometimes to wider groups.

What these various movements have in common is the free sharing of information, distributed access, international cooperation, and a reliance on shared standards.

Libraries and universities are today in the middle of this open revolution. Libraries got involved in it willingly and have been spearheading some aspects of the open movement, which I'll tell you about in a little detail.

Many universities have been dragged into it by the demands of their students. Some universities are now being proactive and spearheading further developments.

There are people now who are predicting the end of libraries and universities due to various aspects of the open movement. I'd like to discuss that with you and hear what you think about that as we spend the next hour or so together.

## Slide 5 **Open Source Software**

The Clay Shirky video I asked you to watch went into open source software in some detail, so I won't belabor it.

Basically, Open source software is software that is freely available for download and the source code is wide open so that other programmers can see how it works and can modify it without having to pay a fee. Open source software must be able to be modified and repurposed and any new software derived from it must also be open for free use, downloading, and modification.

As Clay Shirky explained in his video, the open source community is characterized by people who are philosophically committed to sharing and helping. This movement enables people the world over to download software and get free help from the user community on how to install it, modify it, and resolve problems.

It's a development method for software that harnesses the power of distributed peer review and transparency of process. The promise of open source is better quality, higher reliability, more flexibility, lower cost, and an end to vendor lock-in.

## Slide 6 **Open Source Examples - ICT**

There are hundreds or thousands of examples of open source software, many of which support work that we do in the library and in the USF System. You might have heard of some of them: Linux, Gnome, Apache, Firefox.

We use them not just because they are free but because they do the work we need to have done and they do it well. They allow us to tweak the programs to make them do things just a little differently and give us greater flexibility.

## Slide 7 DSpace

An example of open source software is Dspace. The first public version of DSpace was released in November 2002, as a joint effort between developers from MIT and Hewlett Packard Labs.

Dspace is the software that underlies the USFSP digital archive. It has been widely adopted around the world and the Poynter Library is the only institution within the SUS that uses this software.

We use the open source software Dspace to provide us the platform we need for our open-access digital archive. **So, What is open access?**

## Slide 8 Open Access Symbol

Open Access is a worldwide movement that has strong supporters and detractors. It has major implications for colleges and universities, students and faculty, taxpayers and the general public.

## Slide 9 Open Access Definition

- One of the world's experts on open access is a professor named Peter Suber and he defines it as :
  - digital
  - online
  - free of charge, and
  - free of most copyright and licensing restrictions
- What makes it **possible** is the internet and the consent of the author or copyright-holder to make it freely available over the Internet

## Slide 10 Why Open Access?

- Libraries first got involved in the open movement, specifically open access, because the cost of scholarly journals was skyrocketing – increasing several times faster than the rate of inflation. ***Journal prices rising faster than inflation for the past 35 years - four times faster than inflation in the last 15 years***
- libraries dramatically increased expenditures on electronic resources. At USFSP, we spend 2 ½ times as much on electronic books and journals as we do on print books and journals. The USF System pays \$3,218,775 for the access to ejournals and USFSP pays about \$350,000 as its share of that cost. And that access is restricted only to people with a USF NetID.
- In addition, scholarly output is also increasing, both monographs and serials.
- Even barring price increases we would be unable to provide access to increasing amount of content. So the end result has been that libraries are able to provide access to an ever smaller percentage of the total scholarly output.

## Slide 11 Scholarly Journals

Clay Shirky talked about one of the earliest research journals - the *Philosophical Transactions of the Royal Society*. First published in 1665, it was controversial at the time. The journal as a means of sharing scientific discoveries was seen as a great step forward to greater access and transparency. And that model worked well for about 350 years.

Scholarly journals today exist because faculty at colleges and universities write articles that get published in journals. ***They write them for free and often sign agreements with the publishers turning their copyright over to the journals. This is a key point – as authors they own their work but they sign it away to publishers in order to have the work published. The publishers then restrict access to the article to paying customers – even though they got the content for free.***

They charge those same colleges and universities a huge amount of money for print subscriptions or electronic access to those journals. USF System pays \$3,218,775 for the access to ejournals. Publishers always say that they add value and the value they add is formatting, distribution, and peer review.

Most journal editors and referees participating in peer review are faculty at colleges and universities who also provide their work for free. This means that the journal publishers are getting free labor from colleges and universities across the country.

What is peer review? Why is it important? And is it possible to have peer review in open access publications?

## **Slide 12 Peer Review**

*Peer review is essential for scholarly journals. It is what makes us trust the articles that we read in these journals.*

- *Peer review* is the evaluation of creative work or performance by other people in the same field in order to maintain or enhance the quality of the work
- Peer review utilizes the independence, and usually the anonymity, of the reviewers in order to obtain an unbiased evaluation. Typically, the reviewers are not selected from among the close colleagues, relatives or friends of the creator or performer of the work, and potential reviewers are required to disclose of any conflicts of interest. They also generally do not know the authors' name when they review the article
- Peer review helps maintain and enhance quality by detecting weaknesses and errors in specific works

### Slide 13 USFSP Digital Archive

There are two primary vehicles for delivering OA to research articles: OA repositories or OA journals

- **OA archives or repositories** do not perform peer review, but simply make their contents freely available to the world. They may contain unrefereed preprints, refereed postprints, or both. Archives may belong to institutions, such as universities and laboratories, or disciplines, such as physics and economics. Authors may archive their preprints without anyone else's permission, and many journals already permit authors to archive their postprints (which means after refereeing has taken place).

The USFSP Digital Archive is an Open Access archive established and run by the Poynter Library (using the Dspace open-source software). We have a wide variety of content: faculty work, student work, institutional archives, photos, and much more. To date, almost 5000 items from and about USFSP.

### Slide 14 International Journal of Marketing Studies

The other way that we gain access to research is through open-access journals.

This is one example of a journal that makes its articles available to the public without charging readers or institutions a subscription fee.

**OA journals** like this one typically perform peer review and then make the approved contents freely available to the world.

Their expenses consist of peer review, manuscript preparation, and server space.

OA journals pay their bills very much the way broadcast television and radio stations do: those with an interest in disseminating the content pay the production costs upfront so that access can be free of charge for everyone with the right equipment. Sometimes this means that journals have a subsidy from the hosting university or professional society.

## **Slide 15 USFSP Open Access Journal**

One of our faculty, Dr. Alex Brice, has started an open-access journal called Communication Science and Disorders International that he is publishing through the USFSP Digital Archives. The Library is supporting this important research by providing a means of publishing it through the digital archive.

## **Slide 16 Center for Systematic Entomology**

- OA is entirely compatible with peer review, and all the major OA initiatives for scientific and scholarly literature insist on its importance.
- OA literature is not free to produce, even if it is less expensive to produce than conventionally published literature. The question is not whether scholarly literature can be made costless, but whether there are better ways to pay the bills than by charging readers and creating access barriers. Business models for paying the bills depend on how OA is delivered.

Sometimes journals charge a processing fee on accepted articles, to be paid by the author or the author's sponsor (employer, funding agency).

OA journals that charge processing fees usually waive them in cases of economic hardship. OA journals with institutional subsidies tend to charge no processing fees. OA journals can get by on lower subsidies or fees if they have income from other publications, advertising, priced add-ons, or auxiliary services.

## **Slide 17 Open Access Database**

How many of you have heard of the Public Library of Science?

PLOS (Public Library of Science) is a nonprofit publisher and advocacy organization with a mission of leading a transformation in scientific and medical research communication. Every article they publish is open-access – freely available online for anyone to use.

To provide open access (OA), PLOS journals use a business model in which their expenses are recovered in part by charging a publication fee to the authors or research sponsors for each article they publish. They offer a complete or partial fee waiver for authors who do not have funds to cover publication fees.

*PLOS ONE* is an international, peer-reviewed, open-access, online publication offered through the Public Library of Science database.

## **Slide 18 Open Access Directory**

the Directory of Open Access Journals provides access in one place to thousands of open access journals from around the world. You can search by topic, by discipline, by author, by journal.

The aim of the Directory of Open Access Journals is to increase the visibility and ease of use of open access scientific and scholarly journals thereby promoting their increased usage and impact. The Directory aims to be comprehensive and cover all open access scientific and scholarly journals that use a quality control system to guarantee the content. In short a one stop shop for users to Open Access Journals.

So, why should any of us care about open access?

## **Slide 19 For the Public Good**

One of the basic arguments in favor of open access is that it is for the public good. The Alliance for Taxpayer Access is one that has become a strong voice in support of open access to research data and articles. The rationale is this: much research is funded by government grants, which get their money from taxpayers. Therefore, they argue, the results of that research should be available to the public.

How many of you agree with this position?

## **Slide 20 Funding Agencies Support it - NIH**

NIH is one of the leading funders of research in the U.S. In response to taxpayer demand, they several years ago adopted a policy that states that NIH *shall require that all investigators funded by the NIH submit or have submitted for them to the National Library of Medicine's PubMed Central an electronic version of their final peer-reviewed manuscripts upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication:*

The Policy requires that the final peer-reviewed manuscripts be accessible to the public on PubMed Central to help advance science and improve human health.

## Slide 21 PMC

PubMed Central is the archive that NIH requires researchers to deposit their work in. It's a free archive of biomedical and life sciences journal literature at the U.S. National Institutes of Health's National Library of Medicine (NIH/NLM). In keeping with NLM's legislative mandate to collect and preserve the biomedical literature, PMC serves as a digital counterpart to NLM's extensive print journal collection. As an archive, PMC is designed to provide permanent access to all of its content.

Please note, however, that free access does not mean that there is no copyright protection. Publishers and individual authors continue to hold copyright on the material in PMC and users must abide by the terms defined by the copyright holder. *The same is true for the USFSP digital archive*

## Slide 22 Student Support

Students are getting on the bandwagon as they recognize that open access to research will reduce their costs overall. The United States Student Association is one national student organization which has come out in support of open access to research and scholarship.

## Slide 23 International Support - SPARC

SPARC®, the Scholarly Publishing and Academic Resources Coalition, is an international alliance of academic and research libraries whose focus is to stimulate the emergence of new scholarly communication models that expand the dissemination of scholarly research and reduce financial pressures on libraries.

SPARC focuses on: **Educating** stakeholders about the problems in scholarly communication and the opportunities for change;

**Advocating** policy changes that improve the potential of technology to advance scholarly communication and that explicitly recognize that dissemination is an essential, inseparable component of the research process;

**Providing** real-world demonstrations of business and publishing models that advance changes benefiting scholarship and higher education.

## **Slide 24 Faculty Support – Freedom to Tinker**

More and more universities and colleges are coming out in favor of open access through the efforts of their faculty. Faculty are trying to get their universities to support them as they negotiate with publishers to retain control over their articles so that a copy of their research can be posted in open access archives, like the USFSP Digital Archive.

Faculty no longer want to do all the research for free and then be forced by publishers to sign away their rights as authors just to get their work published.

## **Slide 25 Promote Research & Scholarship**

This is an example of one of the faculty collections within the USFSP Digital Archive. In these collections we provide a place for faculty to archive and provide access to their journal articles, their conference presentations, and more.

We are often limited however because faculty too often have signed away their copyright. So we provide access to abstracts of their journal articles and provide the citation to the full article. Whenever possible, we provide access to the full text directly in the archive. The archive helps track the usage of the articles by showing how many times it has been looked at and from where in the world people are looking at it.

We also try to inform faculty about their rights as authors and help them to negotiate with their publishers before they sign away all the rights to the publishers.

## **Slide 26 Cassill**

Another faculty collection in the digital archive

## Slide 27 Greater Exposure

Widely disseminated and cited results—with no access restrictions!

This one entry for an article written by Dr. Cassill has been viewed over 4500 times from around the world: United States of America 4532; China 4 ; Netherlands 4 ; Canada 2 ; Germany 2; Russian Federation 2; Belgium

## Slide 28 International support - Wellcome

Open Access is a worldwide movement and the UK and Europe are leading the way in many respects.

The **Wellcome Trust** was established in 1936 as an independent charity funding research to improve human and animal health. It has an endowment of around £13.9 billion. It is the United Kingdom's largest provider of non-governmental funding for scientific research and one of the largest providers in the world.<sup>1</sup> In the field of medical research, it is the world's second largest private funder, after Bill & Melinda Gates Foundation.

**The Trust has a Position statement in support of open and unrestricted access to published research** which says that it believes that maximizing the distribution of research papers - by providing free, online access - is the most effective way of ensuring that the research we fund can be accessed, read and built upon.

The Wellcome Trust supports unrestricted access to the published output of research as a fundamental part of its charitable mission and a public benefit to be encouraged wherever possible.

**Important note:** the Trust strongly encourages the use of the Creative Commons Attribution license (CC-BY) and from 1 April 2013 will **require** that this license be used wherever Trust funds are used to pay an open access fee.

## **Slide 29 International - Push**

This past summer policy makers in Britain, elsewhere in Europe, and in Australia made decisions to promote open access to the research coming out of their countries. The British government endorsed the idea that publication in open-access journals) should be the goal. It said that public-sector agencies that support research, like Research Councils UK, should find effective, flexible ways to help cover publishing costs while maintaining as much open access to research results as possible.

the government said: "Support for open-access publication should be accompanied by policies to minimize restrictions on the rights of use and re-use, especially for non-commercial purposes."

## **Slide 30 International – Research UK**

Soon after this, the Research Councils UK issued its own updated policy on open access. It spelled out the expectation that researchers whose work is supported by the councils will "maximize the opportunities to make their results available for free."

## **Slide 31 International European Commission**

Then the European Commission weighed in, declaring open access to be essential for Europe's ability to enhance its economic performance and improve its capacity to compete through knowledge. They said that they spend hundreds of billions of euros on research in Europe and they needed to make sure the results can have the largest possible impact. The EU declared that it is placing European science as a global leader: and giving taxpayers the "value for money" they deserve.

In July 2012 they announced their intention to make open access all research findings funded by its enormous, €80-billion (US\$98-billion) research-funding program for 2014–20. And it is urging member states to follow its lead.

## Slide 32 OpenAIRE

The commission has already developed such a repository — [OpenAIRE](#).

## Slide 33 Open Data

Closely aligned with the open access movement is the open data movement that is a movement to make the raw research data openly available so that other researchers can mine that data and maximize the use of it.

**NSF Data Sharing Policy:** Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. NSF Grant Proposals submitted after January 2011, must include a supplementary “Data Management Plan” laying out how they will preserve and make their research data available.

## Slide 34 Creative Commons

Creative Commons licenses are one tool that enables the open access/open data movement. They give everyone from individual creators to large companies and institutions a simple, standardized way to grant copyright permissions to their creative work.

All Creative Commons licenses have many important features in common.

- Every license helps creators retain copyright while allowing others to copy, distribute, and make some uses of their work — at least non-commercially.
- It also ensures licensors get the credit for their work they deserve.
- It works around the world and lasts as long as applicable copyright lasts.
- A Creative Commons licensor answers a few simple questions to choose a license — first, do I want to allow commercial use or not, and then second, do I want to allow derivative works or not?

## Slide 35 Open Content

One of the world's best examples of Open Content is Wikipedia. Have any of you ever created anything for Wikipedia?

Since its creation in 2001, Wikipedia has grown rapidly into one of the largest reference websites, attracting 470 million unique visitors monthly. There are more than 77,000 active contributors working on over 22,000,000 articles in 285 languages. Every day, hundreds of thousands of visitors from around the world collectively make tens of thousands of edits and create thousands of new articles to augment the knowledge held by the Wikipedia encyclopedia.

How is such open content paid for? Even with free contributions, there are still costs – servers, some paid staff. Wikipedia is now embarking on a plea to have donors provide support so that the content can remain open to the world. I give a donation every year, just as I do to public radio or television because I believe so strongly in the value of Wikipedia. Wikipedia is said to represent 100 million hours of human thought

As content becomes more open, as authorship becomes more open, how does that change the power relationships in a society? Think about what Clay Shirky said.

This is one of the key points of Clay Shirky's lecture.

## Slide 36 Open Content – Open culture

There's a lot of open content available. A wide range of content is available on the Open Culture site, along with many other similar sites.

Open Culture brings together high-quality cultural & educational media. Their mission is to centralize content, curate it, and provide access to it whenever and wherever people want it. Free audio books, free online courses, free movies, free language lessons, free ebooks and more.

One of the pieces of open culture that is captured here is Dante's Divine Comedy and Dali's illustrations for the book that I used on one of my early slides in this presentation.

### **Slide 37 Google and Digital Libraries**

Over the past 15 or so years, Google has been partnering with some of the biggest research libraries in the world to digitize their books and make snippets of them freely available on the Internet – fully available if they could determine they were in the “public domain” – meaning that access to them was not restricted because of copyright.

There have been lawsuits and court cases that have the potential for having a profound impact on the access we all have to the world’s information. University and college libraries and universities have been fighting for openness.

The current U.S. anti-infringement law, the Digital Millennium Copyright Act, puts the onus on copyright holders to notify Google when it is displaying or linking to pirated material. The controversial Stop Online Piracy Act and Protect Intellectual Property Act would have shifted that onus to Google and individual libraries everywhere, putting us on the hook for content that it links to. Libraries and library associations also fought hard against these bills. Each victory is only temporary, though, as new bills are sponsored and new court cases are filed all the time, at the state and the federal level.

### **Slide 38 Open courses**

Switching gears a bit, I’d like to talk a bit about open courses.

There have been a lot of open courses available for some time. These are courses that are made freely available over the Internet. No fee is charged and sometimes people get a record of having taken the course and sometimes not.

One of the more popular mechanisms being used to provide value to free online courses are badges.

A 'badge' is a symbol or indicator of an accomplishment, skill, quality or interest. A “digital badge” is an online record of achievements, tracking the recipient’s interaction with the course and instructor and issuing a badge to verify the work done.

## Slide 39 MOOCS

Massive Open Online Courses – have any of you ever taken one or tried one?

A **massive open online course (MOOC)** is a type of online course aimed at large-scale participation and open access via the web. MOOCs are a recent development. Though the design of and participation in a MOOC may be similar to college or university courses, MOOCs typically do not offer credits awarded to paying students at schools. However, assessment of learning may be done for certification.

MOOC participants do not need to be a registered student in a school to "take" a MOOC, and are not required to pay a fee.

MOOCs originated from within the open educational resources movement.

## Slide 40 Coursera

More recently, a number of MOOC-type projects have emerged independently, such as Coursera, Udacity, and edX

- Have any of you ever taken a free online course?
- Have you ever gotten a badge?

## Slide 41 Open Education

OpenEducation.net is a site dedicated to tracking the changes occurring in education today.

## Slide 42 P2PU

The Peer 2 Peer University is a grassroots open education project that organizes learning outside of institutional walls and gives learners recognition for their achievements. P2PU creates a model for lifelong learning alongside traditional formal higher education. Leveraging the internet and educational materials openly available online, P2PU enables high-quality low-cost education opportunities.

The values and principles that are the foundation of P2PU: **openness, community, peer learning**

## Slide 43 Open Textbooks

**September 27th, 2012:** In California, Governor Jerry Brown signed two bills that will provide for the creation of free, openly licensed digital textbooks for the 50 most popular lower-division college courses offered by California colleges.

A crucial component of the California legislation is that the textbooks developed will be made available under the Creative Commons Attribution license that allows others to use, distribute, and create derivative works based upon the digital material while still allowing the authors or creators to receive credit for their efforts. The license allows teachers to tailor textbook content to students' needs, permits commercial companies to take the resources and build new products with it (such as video tutorials), and opens the doors for collaboration and improvement of the materials.

Access to affordable textbooks is extremely important for students, as textbook costs continue to rise at four times the rate of inflation, sometimes surpassing the cost of tuition at some community colleges. So, in addition to making the digital textbooks available to students free of cost, the legislation requires that print copies of textbooks will cost about \$20.

#### **Slide 44 Textbook Affordability Project**

This is a pilot program at USF Tampa to provide free access to a selected set of digital versions of textbooks. It's part of a national Textbook Affordability Project that has been funded with grant money.

If it is successful, there may be opportunities to expand it throughout the USF System. Take a look at the project and some of the tools they have made available for all USF students at <http://tap.usf.edu/>

#### **Slide 45 OER Commons**

The term Open Educational Resources (OER) was first introduced at a conference hosted by UNESCO in 2000 and was promoted in the context of providing free access to educational resources on a global scale.

Open Education Resources (OER) are teaching and learning materials freely available for everyone to use, whether you are a teacher or a learner. This includes full courses, modules, syllabi, lectures, homework assignments, quizzes, lab activities, pedagogical materials, games, simulations, and many more resources contained in digital media collections from around the world.

OER initiatives aspire to provide open access to high-quality education resources on a global scale. The number of OER related programs and projects has been growing quickly within the past few years.

The OER Commons pictured here is one site that is working to provide access to a wide variety of open educational resources for teachers and students to use – to find what they need.

#### **Slide 46 Open Educational practice**

There is a lot going on in the open movement that has the potential to revolutionize education and especially higher education.

## Slide 47 Open Source Democracy

How many of you were able to watch the Clay Shirky video? What did you think of it? Shall we take a few minutes to watch parts of it here?

- What did you think of his assertion that more media always means more argument? Did you agree with his conclusion that the media by itself does not change the power structure?
- What did you think of his assertion that you have to look around the edges to see how people are experimenting with the political ramifications of new technology?
- Do you agree with his conclusion that the open movement has the power to change our society? In what ways?
- In this new world of open everything, what is the role of a library or a university?
- Why are you at USFSP as a student?
- Why do we need universities and colleges if there are these free courses available on the Internet on virtually every topic?