

OPENING UP: EXPLORING OPEN SOURCE, OPEN DATA, AND OPEN REFERRAL

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September 29, 2015

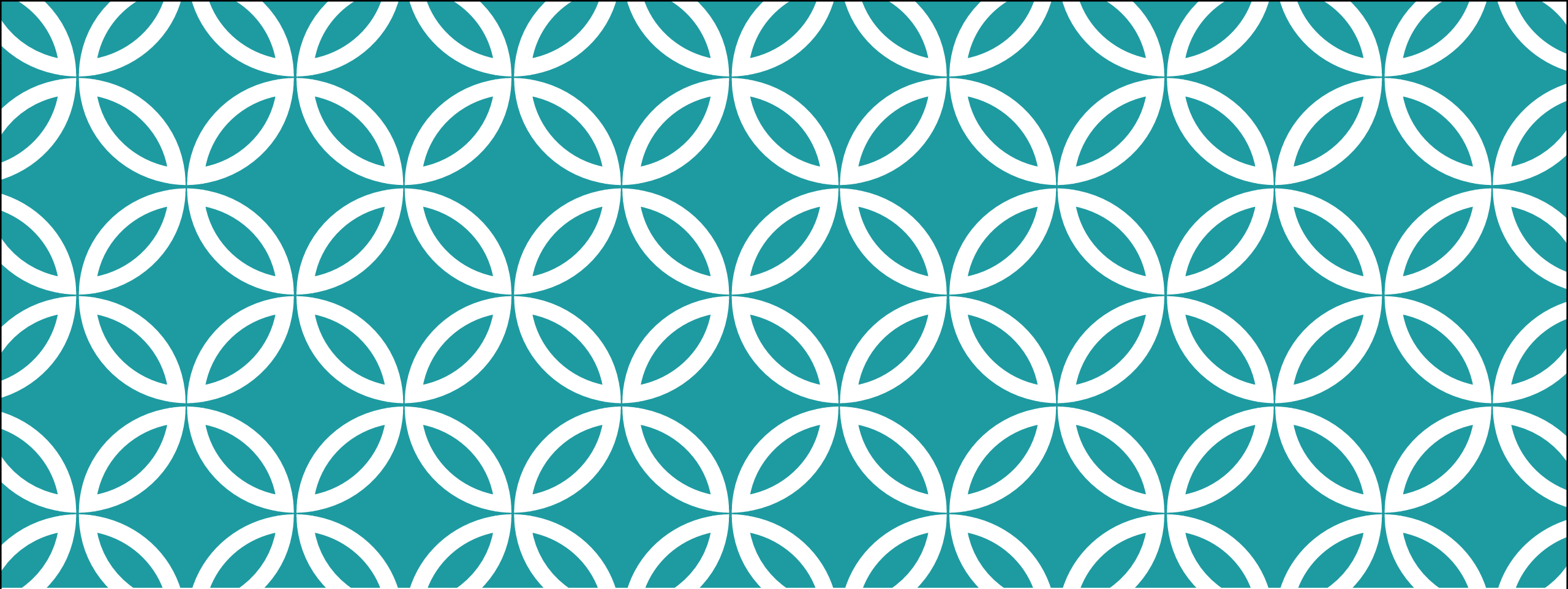
INTRODUCTION

This main presentation is arranged into 3 parts:

1. General information about Open Initiatives
2. An overview of the Open Referral project
3. Information specific to Open Initiatives with CIOC Software, with emphasis on CIOC as an Open Source project

For the really keen, we'll follow up at the end with:

4. An overview of how Open Source projects work (for the non-technical)
5. More links and resources about Open Initiatives



OPENING UP, PART 1: A BACKGROUND ON OPEN ACTIVITIES AND INITIATIVES

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WHAT MAKES A WORK “OPEN”?

Open Work in this document means:

- any type of **work product** (raw data, creative works, software, etc.)
- made available under a **specific license**
- that allows **access, use and modification of the work by anyone**

Open Works share most/all of the following characteristics:

- **Free**
- **Redistributable**
- **Modifiable**
- **Formatted for easy use and modification**

WHAT IS AN “OPEN INITIATIVE”?

There are a wide range of Open Activities and Initiatives:

- **Open Source**
- **Open Data**
- **Open Referral**
- **Open Access**
- **Open Content**
- **Open Research**
- **Open Notebook**
- **Open Government**

WHY ARE WE AFRAID OF BEING OPEN?

Funding or revenue generation

Maintaining quality control

Liability or embarrassment from errors or omissions

Exposing information that should be private or secure

Return of value from third party derivative works

Receiving proper attribution as the original source

WHY PARTICIPATE IN OPEN INITIATIVES?

Provide Opportunities for Novel Use

Accountability for Public Funds

Reduce Duplication of Effort

Promote the use of Quality Information

WHAT KIND OF ORGANIZATIONS PARTICIPATE IN CREATING AND DISTRIBUTING OPEN WORKS?

Large and Small Commercial Businesses

Federal, Provincial, and Municipal Governments

Universities

Non-Profits and Social Service Agencies

Grassroots / Individuals

MAINTAINING CONTROL OVER YOUR OPEN WORK

Open Works still have a **copyright holder**

Open Works can **require attribution** or **return of derivative works**

The **copyright holder** retains their **freedom to use the works in any manner**

The copyright holder is **not obligated to release their own derivative works** under the same license (or at all)

There is strong incentive to continue to draw from the source work as long as it is **being well managed and maintained**

COPING WITH EXTERNAL CHANGES

Open initiatives are **not required to accept changes / contributions**

Collaborative projects should include **Change management** systems that allow changes to be attributed, tracked, and vetted

Open projects generally include **Contributor Agreements** and guidelines for participation

People may do things you don't like with what you release, so licenses should include a clear non-endorsement clause

Living projects that stay current and foster participation are less likely to spawn poor quality derivative works

PLANNING FOR COLLABORATIVE MANAGEMENT AND MAINTENANCE OF YOUR PROJECT

Collaborative management and maintenance can lessen each contributor's individual effort and allow them to benefit from the work of others, but...

More people means more overhead

End-users can have different requirements

Contributors will have different standards and processes

Investing in external resources is risky

TIPS FOR COLLABORATIVE MANAGEMENT AND MAINTENANCE OF YOUR PROJECT

Accepting contributions isn't right for every project

Have **well-documented communications and management processes**

Require **contributor agreements** from all participants

Have **clear community standards** and a “chain of command” for resolving disagreements

Make **style/content standards** and **project plans** part of the Open project.

Have a **plan for managing contributor's needs and requests**

Don't accept contributions to your project until you are ready

TIPS FOR COLLABORATIVE MANAGEMENT AND MAINTENANCE OF YOUR PROJECT (CONT.)

Invest in training materials and mentoring to help people become successful contributors to your project

Just say “no” to poor quality help

Identify tools that will help you manage your project

- Have just *one* really good tool for each key area such as **revision control**, **issue tracking**, **documentation**, and **community discussion**.
- Tools should be free for participants and accessible from the public internet
- When possible, use tools that are familiar to your potential collaborators

OPEN WORKS AND FUNDING

Open Works **need resources** to be maintain and supported them

Start-up costs can include privacy audits, technology investments, legal costs and more

Ongoing resource requirements may increase due to the need to support participants (even with the help of contributors)

Funding sources may need help understanding the start-up and ongoing resource requirements

Organizations may need to work with their funders to **adapt metrics** used for measuring program success

TIPS FOR WORKING WITH FUNDERS

Determine the start-up costs for your project and communicate your requirements ahead of time.

Identify the special qualifications and expertise that makes your organization the best source for the management and ongoing development of your work

Document the cost and time burden that comes from collaborative management to set funder expectations

TIPS FOR WORKING WITH FUNDERS (CONT.)

Leverage the increased use of your work

Emphasize your role in improving community knowledge

Demonstrate a commitment to lowering barriers to access

Demonstrate a commitment to efficiency through re-use

Incorporate third party use of your work into success measures

OPEN WORKS AND REVENUE GENERATION

Open Works can mean a major change if a primary business function involved licensing or mediating access to the information or works

It is possible to successfully generate revenue by **servicing, supporting, analyzing, presenting, extending, and otherwise leveraging Open Works for commercial gain** by looking for ways to add value

Some people believe that a work can still be Open (available for use) without being “free” (no cost)

Open Works can reduce business costs by allowing for co-operative production and maintenance of tools that support the business

Open Works can encourage the adoption of standards that benefit or promote the business

PLANNING FOR THE “VALUE ADD”

Extend the Open Work

- Additional datum (e.g. more data elements, more records, additional classifications)
- Prepared reports / analytics

Offer an enhanced experience

- High-volume or high-speed access
- More frequent updates or data update assurance
- Searching and reporting tools
- Data updating and validation services

Provide customer support or consultation services

- Be an expert that helps others use your resources effectively

OPEN WORKS AND LICENSING: AN OVERVIEW

Open Works are not copyright-free; they have licenses that allow free use under specific conditions

Restrictive Licenses have provisions that limit the conditions under which a work can be used or modified

Permissive Licenses normally only require attribution, a release from liability, and a statement of non-endorsement

Dual-licensing is possible if you are trying to address different needs

Common (rather than custom) licenses are the right choice for most

COMMONLY USED OPEN LICENSES

For Open Source:

- **MIT**
- **Apache 2.0**
- **GNU Public License (GPL)**

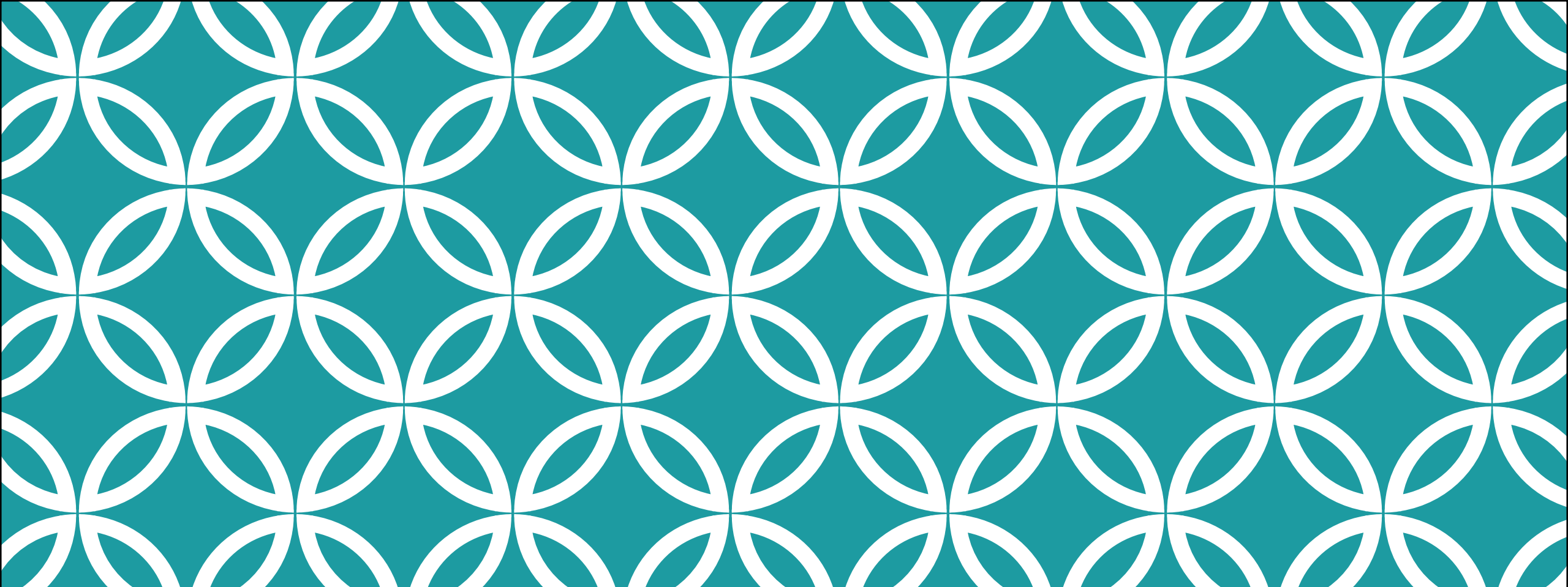
For Open Data:

- **Creative Commons**
- **Open Data Commons**

Many more are available - more information on Open Licenses is included at the end of this presentation.

SUMMARY: FIRST STEPS TO OPEN WORKS

1. What are your goals?
2. Who are the stakeholders?
3. What kind of license is appropriate for you?
4. What are your start-up costs?
5. How are your ongoing costs likely to change?
6. How will you manage contributions or collaborative development, if applicable?
7. How will you replace any revenue previously gained through limited access?
8. What resources are available to support your project?



OPENING UP, PART 2: THE OPEN REFERRAL PROJECT

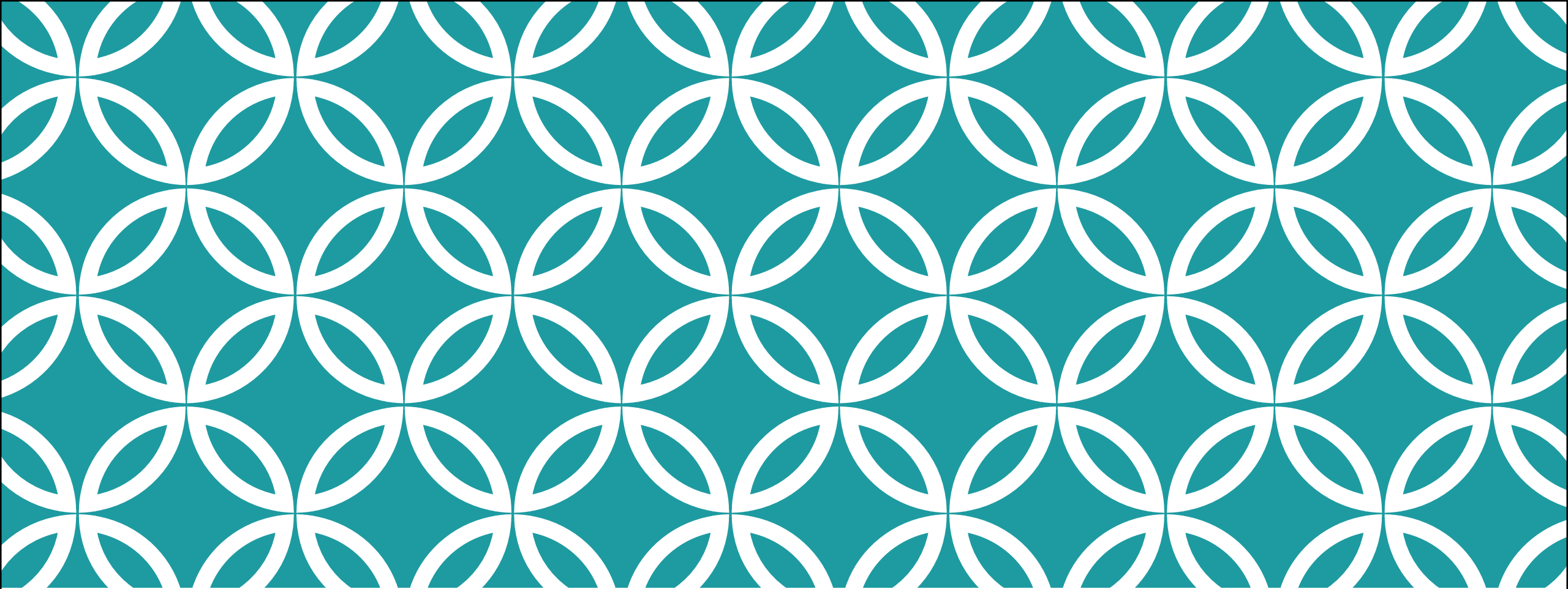
Greg Bloom,
Open Referral Project

September 29, 2015

OPEN REFERRAL INTRODUCTION

Presentation by Greg Bloom, Chief Organizing Officer of the Open Referral Project

More information at: <http://www.openreferral.org>



OPENING UP, PART 3: OPEN SOURCE AND OPEN DATA FOR CIOC

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September 29, 2015

CIOC AS AN OPEN PLATFORM

The CIOC Board of Directors and the software developers (KCL Software Solutions Inc.) have been discussing the possibility of making CIOC an Open Platform for more than a year

Why Open CIOC?

- Acknowledge past public contributions
- Revitalize the development project
- Encourage wider participation
- Provide current users with more options for using the software in the future

CIOC AS AN OPEN PLATFORM (CONT.)

The goal is to have all of CIOC's software and data products Open by the end of 2015, and we've already started...

Project updates (including this presentation) are available at:

<http://www.opencioc.org>

DOES THIS MEAN MY SOFTWARE IS FREE?

The software is “free”, in that there is no license fee to use the software, and anyone can use it...

...but there are still costs to use it, because you need:

- Software support (setup, training, monitoring, bug fixes, system admin, etc.)
- Hardware and network (servers, data transfer, etc.)
- 3rd party software licenses (Windows, SQL Server, etc.)

Each member (and anyone else) will have the *option* of figuring out different hosting and support services if they felt that was in their best interests, but sticking together has cost advantages

CIOC AND OPEN DATA

CIOC Members, partners, and developers have spent years developing many informal standards used within CIOC and beyond

This includes CIOC “checklists” and classification systems like Volunteer “Areas of Interest” and the geographic hierarchy.

These works have been published under the **Creative Commons CC-0 (no rights reserved)** or **Creative Commons CC-BY (attribution only)** license. Visit <http://www.opencioc.org> for links to these projects.

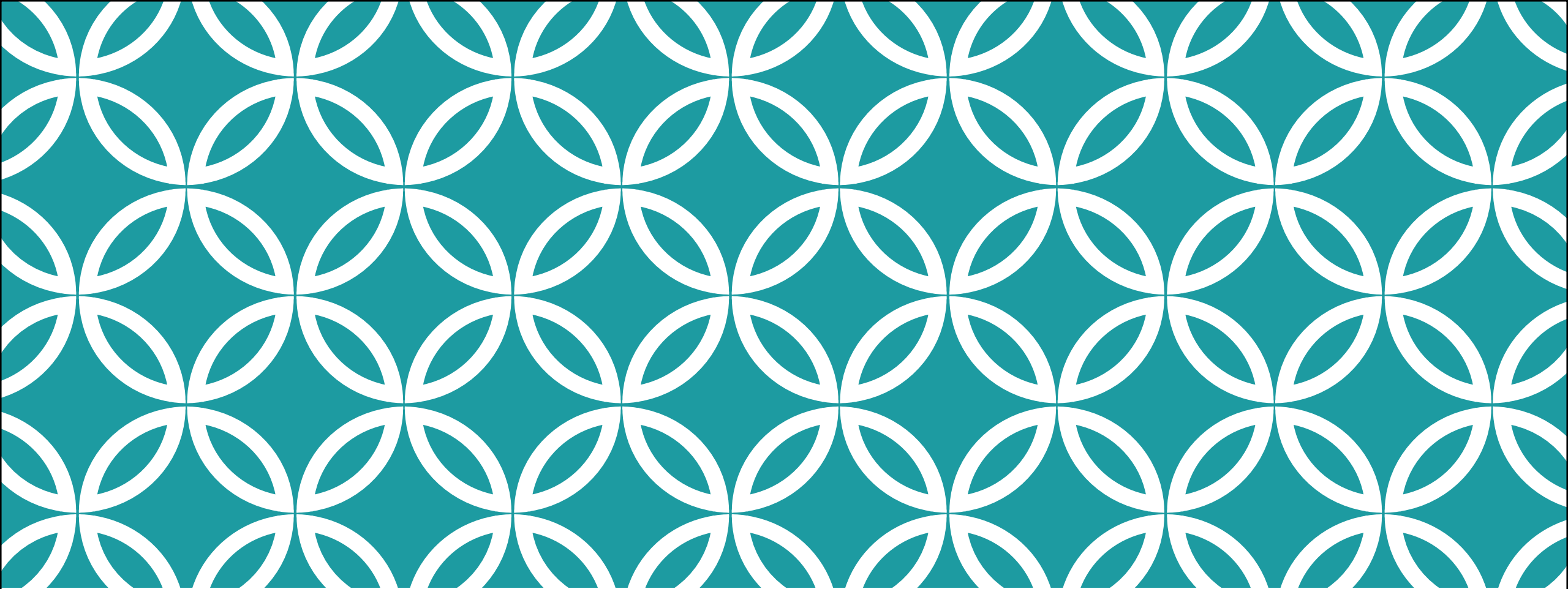
These are not technical projects, and your participation is welcome!

CIOC AND OPEN REFERRAL

We're investigating the possibility of providing a basic ability to publish data from CIOC Software using the **Open Referral Tabular Data Package**

A project to *import* information from other sources using the Open Referral model is a more complex project

If you are interested in data sharing using the Open Referral format, please be in touch!



OPENING UP, PART 4: AN OPEN SOURCE OVERVIEW

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September 29, 2015

OPEN SOURCE INTRODUCTION: TERMINOLOGY

Next we explore major roles and terminology used in the Open Source world (from a non-technical perspective)

Our goals:

- Give CIOC Members some vocabulary to voice their questions and concerns
- Help Members feel more confident about participating in and following Open CIOC projects

Questions?

- Contact me (Katherine Lambacher) by email
- Start up a discussion on the CIOC Community Message Board at <http://community.cioc.ca/message-board/>

HOW OPEN SOURCE PROJECTS WORK: USERS, CONTRIBUTORS, AND COMMITTERS

There are three major non-administrative roles in an Open Source Project:

End-Users actually use the software project

Contributors submit specific change requests to the project code and/or documentation

Committers are the gatekeepers of changes to the project and responsible for planning, reviewing and co-ordinating changes

HOW OPEN SOURCE PROJECTS WORK: COPYRIGHT HOLDERS

Open Source projects still retain a **copyright holding entity**, typically the original author(s) or a **Software Foundation**.

Most projects that accept contributions require participants to sign a **Contributor License Agreement (CLA)**, which officially transfers license to use contributions in the project without restriction

A **Copyright Assignment (CA)** goes further by transferring copyright ownership of contributions

HOW OPEN SOURCE PROJECTS WORK: FOUNDATIONS

Open Source Foundations are the copyright holders of many significant Open Source projects.

Foundations can provide a **legal and operational infrastructure** and are often set up to **facilitate project donations**.

Projects must answer to the Foundations' Board of Directors and follow the Foundation's by-laws

Most Foundations are technology-specific, like **Linux Foundation**, **Python Foundation**, and **Django Foundation**

Some Foundations support a broader range of projects, such as the **Apache Foundation**, the **Software Freedom Conservancy**, the **Free Software Foundation**, and **Software in the Public Interest (SPI)**

HOW OPEN SOURCE PROJECTS WORK: REVISION CONTROL

Revision Control System (RCS) is essential for collaborative development and maintenance of all kinds of electronic documents

An RCS provides tools for:

- **tracking, attributing, and reviewing** changes
- **merging** changes made by multiple people.

Common Revision Control Systems include **GIT, Subversion, Mercurial, CVS, and Bitkeeper**

Many hosted RCS options are available, some of which are free for Open Source projects (e.g. **GitHub, BitBucket, GitLab, and CodePlex**)

HOW OPEN SOURCE PROJECTS WORK: ISSUE TRACKING AND COLLABORATION TOOLS

Software development projects require a system for collecting and tracking reports of issues and change requests and assigning them to contributors; this is generally managed through purpose-built issue tracking software

Open Source projects also depend on a number of collaboration tools in order to accept contributions, including:

- Pull requests (a method for reviewing software code changes)
- Mailing lists, forums, and/or group work spaces

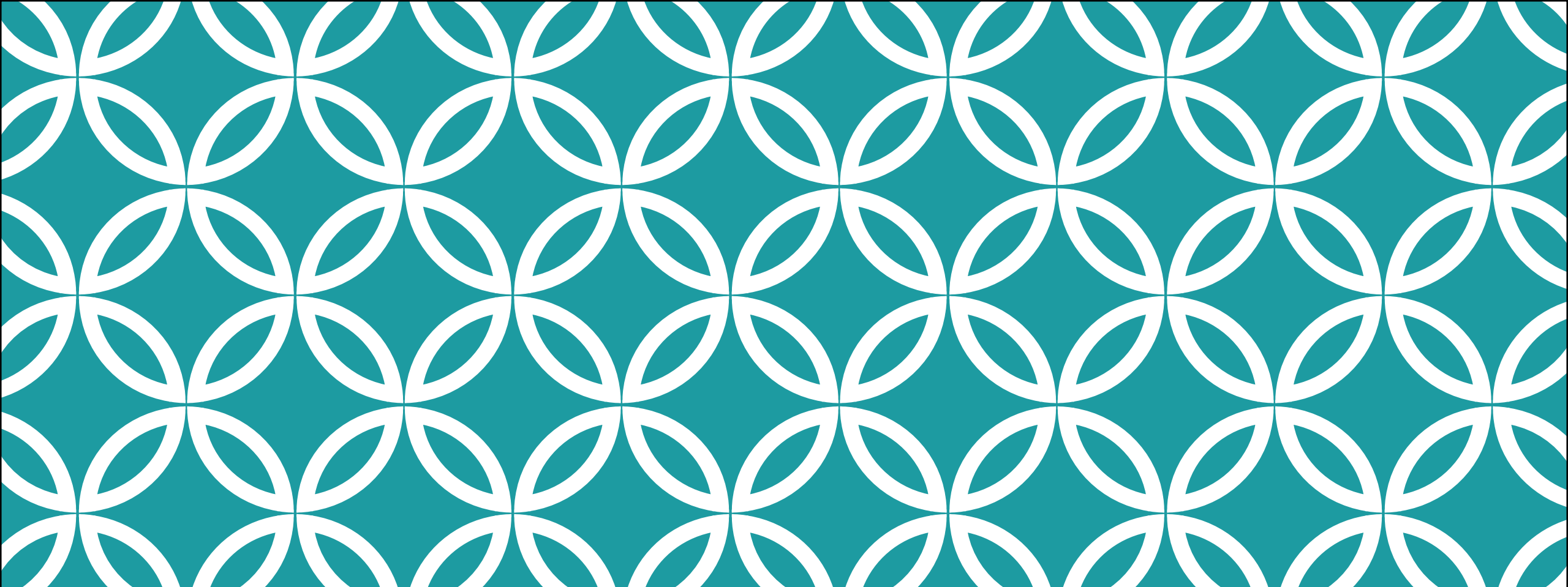
HOW OPEN SOURCE PROJECTS WORK: CLONING AND FORKING

A key feature of Open Source projects is the easily ability for others to duplicate a project and/or create derivative works.

The terminology for this is:

- **Cloning** - making a copy of the project's RCS repository for local use
- **Forking** - making a copy of the project with the intention to create a derivative work in a new RCS repository

Running a project is a lot of work, so people don't often Fork an existing project – but it's nice to know you have the option!



OPENING UP, PART 5: OPEN LICENSES AND OTHER RESOURCES

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MORE INFORMATION ABOUT OPEN LICENSES

Open Source Licenses

A directory of Open Source Licenses, including licenses discussed in this presentation, is available from:

<http://opensource.org/licenses/>

Suggestions for choosing an Open Source license from the most common variants is available at:

<http://choosealicense.com/>

Open Data Licenses

A number of re-usable licenses are for Open Data are available from:

<https://creativecommons.org/licenses/>

<http://opendatacommons.org/licenses>

It is common for government entities releasing Open Data to develop their own licenses, but these are generally not re-usable by others.

MORE INFORMATION AND RESOURCES ABOUT OPEN ACTIVITIES AND INITIATIVES

<http://opensource.org>

<https://openreferral.org/>

<http://creativecommons.org/>

<http://www.opendataresearch.org/>

<http://www.opengovpartnership.org/>

<http://dataportals.org/>

<http://open.canada.ca/>

<http://www.ontario.ca/open-data>

<http://www.data.gov.bc.ca/>

<http://www.data.gov/>

<http://data.ottawa.ca/>

<https://data.winnipeg.ca/>

There are Open Initiatives in your area – just search for “Open Data” and your City/Province!

WANT TO SHARE?

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