Open Source World

- The State of Open Design and Open Source Hardware in 2018

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Introduction to this document

This document is the inception document for the publication "Open Source World - The State of Open Design and Open Source Hardware in 2018" (working title). This document is intended as a working document for this publication and will gradually take shape containing intended results, goals, requirements, process, work to be done, financials, people involved and any related topics and notes, as more people are consulted and more becomes clear.

Feel free to add any information you find appropriate, but please be careful deleting information. In time we will probably move away from using this Etherpad as primary documentation, but for now I assume it is good enough.

http://board.net/p/osworld

Introduction to the Open Source World publication

Do you know the "State of the Commons" [1] and the "Global Open Data Index" [2]? These are two annual publications, by Creative Commons and the Open Knowledge Foundation, celebrating the state of Creative Commons licensing and Open Data respectively.

Would it not be great if we had something similar for Open Design / Open Source Hardware? I believe it really could put our favourite topic better on the (global) map. Could or even should we as a community create "Open Source World - The State of Open Design and Open Source Hardware in 2018"? (working title)

What do you think?

Related documents

The process document of the Proof of Concept (PoC) initiative: http://board.net/p/osworldpoc-p
 The document containing the (draft) contents of the PoC: http://board.net/p/osworldpoc-c

Deliverables

The project will result in the following deliverables:

1. Report of 20-30 pages in PDF format, downloadable for free and openly licensed (probably CC BY-SA or CC BY)
2. Report in print (same as the PDF), can be ordered for a price of EUR 10 + shipping
3. Website with: promotional landing page, report download, report order, display of all logos of supporting organizations, donation option, download of raw data with description, names+info of project team, contact option

Ad 1. Report

Table of Contents

A preliminary list of contents of the report:

- Foreword by a 'famous' person articulating the importance of OD/OSH and endorsing the publication
- Introduction: your typical intro of a report, containing situation/context, 'problem', question that the report answers, goal(s) of the report, intended audience
- Licensing statistics/infographic: which open licenses are used in the initiatives? By which numbers? How many different licenses do initiatives use? How many initiatives that claim to be Open Source Hardware do not contain licensing information?
- How 'open' are the initiatives? The Open-O-Meter by OPEN! [4] seems like a very nice and practical way of determining this. Although one could also argue to 'measure' the initiatives to the OSHWA Definition.
- How long have the initiatives existed and are they still active? It seems there are a lot of initiatives that are not (very) active anymore, or are even abandoned. The OPEN! Observatory object attribute "Project status" [5] seems very useful here.
- Featuring of some 'evergreen' initiatives: attractive case descriptions of some initiatives that have been around for a long time, have proven value and are still very active
- Featuring of some 'hot' newcomers: attractive case descriptions of some initiatives that are new and seem to pick up traction.
- Business Model statistics/infographic: which business/revenue models are in fashion and how many initiatives at least attempt at developing a business model, having a sustainable revenue stream?

Writing style

The report will be written 'inverted pyramid' style, which means that after the introduction the most important information comes first, followed by the second most important, followed by the third, etc. The chapter and paragraph titles give the most important fact or conclusion of that chapter/paragraph. The (sub)title of the report could or even should do the same. This means that the report will not have an (executive) summary. If it would need one, it is not written pyramid style by definition. For more information on pyramid style writing, see Wikipedia [9].

Process

The following process will result in the deliverables:

1. Preperation phase
    1.1. Gathering information from people having experience with similar publications (Creative Commons, OKFN)
    1.2. Reaching out to relevant organizations and communities to get them 'on board' (gathering of logos)
    1.3. Drafting a plan for making the publication (this document)
    1.4. Identifying the required project team
    1.5. Investigating and applying for grants and other funding options, like co-funding in-kind or in-cash from on board organizations, possibly finding an organization willing to adopt the initiative
2. Report creation phase
    2.1. Formal start of the report realization phase, once team and funding are in place

2.2. Deciding on the selection criteria and detailed search plan for including initiatives
2.3. Gathering a list of relevant OD/OSH initiatives using desk research and 'expert-sourcing'
2.4. Drafting a detailed report outline and asking experts for input and review
2.5. Deciding on which parameters are to be gathered of each initiative
2.6. Researching and deciding on tools to use for gathering information and creating the report contents
2.7. Gathering and structured recording of information of each initiative
2.8. Analysing and processing gathered information into graphs, infographics and case descriptions
2.9. Compiling the draft report
2.10. Getting experts to review the draft report
2.11. Finding a 'famous' person to write the foreword
2.12. Improving the report from reviews
2.13. Styling and designing of the report lay-out, graphs and infographics
2.14. Compiling the report into a final PDF
3. Website creation phase
3.1. Getting a domain name and creating the basic page structure of the website
3.2. Writing texts for the website
3.3. Transforming all raw data used in the report into a publishable format with descriptions
3.4. Finding a print-to-order partner that will ship globally
3.5. Adding order option and donation option to the website
3.6. Getting expert reviews on the website and testing the ordering and donation options
4. Publishing phase
4.1. Making a communication/marketing plan for the publication
4.2. Creating a press kit and communication toolkit for partner organizations
4.3. Finding a high-profile event where the publication can be officially published
4.4. Sending out announcements / press release to all partners, media outlets, Social Media and other relevant organizations
5. Support phase
5.1. Being available for questions on the contents of the report and for technical assistance of the website

The process of creating the publication will be as open as possible, with the team communicating via a mailing list that is archived, with intermediate results available to the extended team and with use of open source tools and open formats.

Team

Core team

The core project team includes people with the following roles/expertise:

- Project Manager: responsible for an team coordination, progress, budget and result delivery
- Research senior: responsible for the methodology design and use (note: method should be robust, but '100% academic' not required)
- Research juniors: responsible for gathering and recording all information
- Data analyst (can be the research senior): analysing and processing all quantitative data, creating the graphs and infographics

- Copywriter: writing the (qualitative) contents of the report and including the graphs and infographics
- Web developer: responsible for the technical realization of the website
- Marketeer: responsible for getting the most out of publishing and communicating about the report

Extended team

The extended team consists of experts in Open Design, Open Source Hardware, report creating and publication, website creation and marketing. The extended team will be asked for input and reviews at specific moments (see Process) and will provide advice where they see fit.

Budget

Based on the gathered information from other iniatives, the ballpark estimate required budget to do OS World properly is somewhere between EUR 30,000 and EUR 50,000
- gathering quantitative data on initiatives: the OPEN! Observatory currently contains about 200 initiatives, let's say that amount is doubled to 400, gathering data for each initiative takes 15 minutes, means 400*15/60 = about 100 hours
- gathering qualitative data on 5 'best practice' and/or interesting initiatives (interviews): about 100 hours
- copywriting of the report and website, analysing data, compiling the draft report, getting reviews, setting up the website: about 100 hours
- communication and coordination, project management, compiling and adding to a list of initiatives, setting up the data gathering and analysis tooling: about 100 hours
- hiring a designer to create a beautiful report and website from the draft materials: EUR 10,000
- calculating with a tariff of EUR 75 per hour: totals EUR 40,000
- The book Made with Creative Commons was crowdfunded for a minimum of $ 50,000, from which I conclude that the ballpark estimate is about right

Selection criteria

Which criteria are used to decide which initiatives get included for publication and which not?

The list of criteria used by OPEN! in their Observatory of open source hardware [3] makes a lot of sense:

OPEN! Selection criteria
- The product is a discrete manufactured product. Products of food and process industries such as yoghurt, cement, chemicals or plastic compounds are excluded.
- The product contains at least original tangible and non-electronic hardware, that is, mechanical or any other type of non-electronic physical element (e.g. textile). The product may eventually include electronical hardware and consequently software. Purely electronic hardware or software products such as Arduino or Linux are excluded. The piece of non-electronic hardware is "original" in the sense that it is a creation of the product originator and is not a component bought off the shelf. This criterion aims at highlighting the latest development of open source hardware outside the sphere of electronic hardware.

- The product must have at least a certain minimum complexity. Products which consist for example of only one part or material do not meet this criterion. Products such as business card holders or cell phone cases made of one unique 3D-printed part are out of scope. The objective here is to bring to the foreground those of the open source products that are on the upper side of the complexity scale. In other words: to select the few complex ones and let aside the myriad of simple ones you can for example find on Thingiverse or similar platforms.
- The product is developed for functional rather than aesthetic purposes. Jewellery, artistic and decorative items do not fulfil this criterion and therefore were not included.
- The product is fully defined or is surrounded by a community working on defining it fully (i.e. so that you can actually produce it). Mere product ideas or concepts that are not intended to be further defined by the surrounding community are not considered. In that sense, the focus of this list is clearly different from those of challenge platforms such as OpenIDEO who focuses solely on concept generation.
- The product is labelled by its corresponding community as open source.
- Although there are not systematic 1:1 relations between product, project and community, only one product per project and per community is considered.

Links to (lists of) Open Source Hardware initiatives

https://opensourcedesign.cc/observatory/
https://www.wevolver.com/
http://openitagency.eu/open-source-hardware-actors-list-berlin-europe/
https://en.wikipedia.org/wiki/List_of_open-source_hardware_projects
http://certificate.oshwa.org/certification-directory/
https://www.ohwr.org/projects/cernohl/wiki/cernohlprojects

Potential partners

OKFN, https://design.okfn.org/
Creative Commons
OPEN!
OSHWA

Potential funds

List of potential funds for realization of this publication:
Open Society Foundation, https://www.opensocietyfoundations.org/

Potential tools

Using Open Source tools, unless there is a good reason not to do so (with explanation)
Open Data Survey platform, https://blog.okfn.org/2017/11/21/the-open-data-survey-measuring-what-matters-to-you/

- Oscar of OKFN is contact for more information and possible support
Google Spreadsheet (not Open Source)
LibreOffice Calc
MySQL
Parse, http://parseplatform.org/

Actions

Todo

- Reach out to authors/writers/bloggers on Open Design and OSHW with call for authors/ contributors
 Send message to people/platforms:
 shareable.net: general contact and authors of "open source" articles

Done

03-12-2017, Diderik: submit contact form on OPEN! Observatory [7] with request for raw data export
 04-12-2017, Diderik: sent intro e-mail with questions to openitnetwork@think-innovation.com
 04-12-2017, Diderik: sent intro e-mail with questions to Peter Troxler
 05-12-2017, Diderik: created inception document [6]
 05-12-2017, Diderik: sent intro e-mail with questions to Jeremy Bonvoisin of OPEN! [8]
 05-12-2017, Diderik: sent reply e-mail with follow-up questions to openitnetwork
 06-12-2017, Diderik: added deliverables, process and team sections to inception document
 06-12-2017, Diderik: sent reply e-mail on Christian's reply to openitnetwork
 06-12-2017, Diderik: sent reply e-mail to Sander and Oscar of OKFN after Christian's intro e-mail
 06-12-2017, Diderik: sent reply e-mail to Jennie of Creative Commons after Christian's intro e-mail
 08-12-2017, Diderik: planning phone call with Jennie of Creative Commons
 08-12-2017, Diderik: planning phone call with Jeremy of OPEN!
 09-12-2017, Diderik: received reply from Oscar OKFN on 8th, sent reply with follow-up questions
 11-12-2017, Diderik: started with Proof Of Concept, based on OPEN! Observatory data
 11-12-2017, Diderik: called with Jennie of CC, received information on the creation of State of CC
 12-12-2017, Diderik: called with Jérémy of OPEN!, introduction and sharing ideas on how to move forward, will send Observatory data export in a little while, will subscribe to the mailing list and is interested in getting involved, depending on how the initiative develops
 13-12-2017, Diderik: talked to Bram and Richard of Wevolver about the OSWord idea and the possibility of using their dataset as secondary data
 10-01-2018, Diderik: sent e-mail to mailing list, invitation to join OS World PoC
 15-01-2018, Diderik: found Jeremy to be interested, set up Skype call for Wednesday 17 Jan.
 15-01-2018, Diderik: sent e-mail to mailing list inviting others to join the Skype call
 17-01-2018, Diderik: created 2 new etherpads for the PoC, a process and a content document
 23-01-2018, Diderik: call with Jeremy about how he likes to contribute
 31-01-2018, Diderik: received Observatory export two times (first incomplete), started data analysis
 14-02-2018, Diderik: created draft version of a magazine and send to mailing list and REMODEL Slack
 15-02-2018, Diderik: sent e-mail to Richard of Wevolver asking for article contribution
 15-02-2018, Diderik: sent e-mail to Vincent of WikiHouseNL asking for article contribution
 15-02-2018, Diderik: received positive response from Christian to write article about REMODEL

17-02-2018, Diderik: sent e-mail to Jaime asking to become co-editor
19-02-2018, Diderik: wrote details for article outline, sent e-mail to Christian and Jeremy asking for outline
26-02-2018, Diderik: e-mail conversation with Christian and Vincent about article contribution
26-02-2018, Diderik: experimented and created set-up with GitBook and GitHub for collaborating on content
28-02-2018, Diderik: talked with Vincent of WikiHouseNL about the magazine
01-03-2018, Diderik: created GitHub pages website for Open Design Magazine
06-03-2018, Diderik: e-mail conversations with Wevolver and OPEN!
08-03-2018, Diderik: updated wiki with howto article (outline) contributions
08-03-2018, Diderik: reached out with call for authors to:
OSHWA: e-mail and forum
Wevolver: e-mail
OS Microwave: e-mail
Farmbot: e-mail and forum
OpenAg: forum
Lasersaur: e-mail helloworld@nortd.com
Wisdom Stoves: e-mail
OpenBCI: e-mail and forum
Open Source Imaging: e-mail
Waag Society: e-mail
Jaime Arredondo: e-mail
Tech Solidarity NL: Mattermost
Enspiral: e-mail
Digital Life Collective: Mattermost
27-03-2018: Jérémy and Christian have submit their outlines; Daz offered to contribute as designer; Jose is interested
as co-editor and author; Raffaello Palandri of https://ponfcamera.com/ is interested to become author
02-04-2018: sent message to Rafaello of PONF https://ponfcamera.com/ via website that project is too early-stage to be included
03-04-2018: e-mail dialogue with Indalecio Sabbioni on contributing
04-04-2018: sent e-mail progress update to Daz, Jérémy, Christian, Indo and Jose

Learning from others

Open Knowledge Foundation - Global Open Data Index
- process takes "hundreds of hours"
 - crowdsourced: submission and review
 - data gathering takes between 5 and 30 minutes per dataset
 - 4 people working on the Methodology, Project Management and Community Outreach
 - 8 more people doing "community wrangling" ie. outreach to local volunteers in each country to make sure we had submissions from those countries. Most of them were part-time working on this, so I would say around 20 hours a week
 - use of Open Source survey tool, can be re-used
 - use own channels and social media for publication

Creative Commons - State Of

- Jennie creates huge outline document with planning, goal of publication, contents, ask for review from colleagues and network of contributors
 - 300 hours, most work by Jennie and Jane, but also contributor network: review of outline and draft and gathering of interesting profiles/cases
 - out-of-pocket costs are design work
 - Publication via own channels, connect to CC Summit
 - total process takes about 9 months

Links

[1] State of the Commons https://stateof.creativecommons.org/
 [2] Global Open Data Index https://index.okfn.org/
 [3] Selection criteria of OPEN! Observatory https://opensourcedesign.cc/observatory/products#selection_criteria
 [4] Open-O-Meter of OPEN! Observatory https://opensourcedesign.cc/observatory/node/800
 [5] Definition of object attributes of OPEN! Observatory https://opensourcedesign.cc/observatory/node/798
 [6] Inception document of Open Source World http://board.net/p/osworld
 [7] OPEN! Observatory Report inappropriate content form https://opensourcedesign.cc/observatory/report
 [8] OPEN! Project partners and staff https://opensourcedesign.cc/wiki/index.php/OPEN!_Methods_and_tools_for_community-based_product_development
 [9] Inverted pyramid writing on Wikipedia https://en.wikipedia.org/wiki/Inverted_pyramid_(journalism)