

# OPEN DATA AWARENESS PROGRAM

Chitwan

Nawalparasi

Butwal

Kathmandu

Lalitpur

Kavre

Bhaktapur

Raising Awareness on Open Data to Nepal's  
Digital Natives

**Project Report**  
December 2017

11

COLLEGES

2

YOUTH ORG.

7

DISTRICTS

335+

SENSITIZED

Uttardhoka, Lazimpat  
Kathmandu, Nepal  
[www.oknp.org](http://www.oknp.org)



OPEN  
KNOWLEDGE  
NEPAL

## About Open Knowledge Nepal

Open Knowledge Nepal is an open network of open knowledge enthusiasts - the official local chapter of Open Knowledge International. We are a non-profit organization comprised of openness aficionados, mainly self-motivated youths who believe that openness of data is powerful in order to have a participatory government with civil society, eventually leading to sustainable development. Those self-motivated youths are social activists, professors, students, journalists, government officers, however not only limited to it. The group has been involved in research, advocacy, training, organizing meetups and hackathons, and developing tools related to Open Data, Open Government Data, Open Source, Open Education, Open Access, Open Research and other areas. The group also helps and supports open data entrepreneurs and startups to solve different kinds of data related problems they are facing through counseling, training and by developing tools for them.

Website: <http://oknp.org>



Raising Open Data Awareness to Nepal's Digital Natives - Project Report

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## Executive Summary

Raising Open Data Awareness to Nepal's Digital Natives is the project conceptualized by [Open Knowledge Nepal](#), which consists activities like preparing Open Data Curriculum and Open Data Manual, conducting series of Open Data workshops at different colleges and youth organizations and finally organizing Open Data Hackathon. The project aims to raise awareness about the concept and usage of open data to Nepal's digital natives, who are the current youth population and the future decision-makers and leaders of Nepal.

The project hopes to make the open data momentum in Nepal stronger, especially amongst the youth population. In addition to grooming Nepal's future leaders and decision-makers to be data-driven. As a result of the program, a significant number of human resources will become available to support the current data revolution in Nepal. Most importantly, the program will help to improve the chances of more open data startups and initiatives emerging in the near future. An increased capacity and awareness of open data in Nepal's present and future generation will also increase the data driven development, transparency and accountability of responsible bodies.

As a part of the program, hands-on training sessions were organized at 11 different colleges and 2 youth organizations of 7 districts of Nepal. During the workshop, 335+ youths and students were sensitized about the use and benefits of open data. After the completion of all workshops, a hackathon event was organized in Kathmandu to bring together selected participants to work collaboratively on open data and use these data to make innovative products. The different phases of the projects are as follows:

- Prepare Open Data Training Curriculum and based on the curriculum develop Open Data Manual.
- Organize Open Data Awareness Program at different colleges and youths organizations.
- Organize Open Data Hackathon

This project was supported by the Data for Development Programme, and implemented by [the Asia Foundation](#) in partnership with [Development Initiatives](#), with funding from the UK Department for International Development to improve the sharing and use of data as evidence for development in Nepal.



## Background

With the increased number of civil society organizations and private organizations working for and with Open Data, the momentum is also slowly gaining its new height in Nepal. The skilled human resource who can easily interpret data using different software and programming language is also increasing. Many thanks to to the rapid technology changes, Nepal's youth population are becoming more tech-friendly. People now have started to believe in the digital world, but the progress made by Nepal in open data field isn't that significant, as the global open data survey like Global Open Data Index and Open Data Barometer suggest that Nepal still has a long way to go, especially when it comes to sharing of data in open format and using licenses.

Most of Nepal government's data that is released publicly is in closed formats like PDF, leaving a massive amount of datasets which need to be processed and analyzed to make the proper use of it. For example, air quality data, weather forecast data, land ownership data, draft decisions and much more. This has clearly highlighted the need to produce more skillful open data human resources for Nepal's progress in development, governance and other fields. According to census 2011, 20 % of Nepal's population lies in the age group of 16-25, and 40 % lie in the age 26-40. Our current youths (undeniably the country's present and future), raised as digital natives could understand and use open data easier and better than the leaders currently operating in government, civil society, and private sector.

The project raising open data awareness to Nepal's digital native aimed to sensitize Nepal's youth population of different districts about the use and benefits of open data, with the help of resources like Open Data Curriculum and Open Data Manual.

### **Concept: Raising Open Data Awareness to Nepal's Digital Natives**

We planned to raise awareness about concepts and usage of open data to young people in Nepal, mostly tech and data savvy students who are the potential future decision makers in government, civil society and the private sector. We aimed to reach more than 10 colleges, institutions and youth networks in Kathmandu and nearby districts for half-day to full day events. In our experience, giving presentations and talks have limited impact on the audience. It can sensitize people, but can not lower the barrier significantly for the audience to get involved in open data. So, during these events, we planned to run lively, interactive sessions that will engage students in debate and experiential learning concepts of Open Data, Nepal's successful (and failed) open data initiatives, and inform them the ways to, (and hopefully inspire them to) join Nepal's ongoing data revolution.

As a part of this project, we planned to do hackathon where students will learn how to open up government data that remain unused in PDF formats into machine readable formats like CSV,

JSON. Students would also analyze these data and make interesting visualizations from the data they opened. This should help them understand the essence of data they are working with. We believe this to be an important step in civic awareness, as we are learning from our own experience. We planned to prepare open online curriculum and guidelines as a part of this project, which can be used by the participants and others in opening and visualizing data, even after the events.

We believe that this will make Open Data momentum in Nepal stronger than before. The chance of people joining in will increase, the ongoing data initiatives by civil society and private organization will reach to more people. This will potentially help in growth of Nepal's future leaders and members of government, civil society and private sector to share their data. As a result of this, a significant number of human resources will be aware about the importance of open data in developing countries like Nepal and, more importantly we can assume that the chance of open data startups and initiatives emerging in near future will also increase.

## Objectives

The objective of the awareness program was to make the youth of Nepal more aware of the benefits of open data, to fill the gap of data literacy and to better prepare young people for a rapidly changing data scenario. This was also an opportunity to collaborate and involve people who could easily understand and use open data to add value in governance, education, civic engagement, journalism and more. We can involve Nepal's young people who had a better chance at education than earlier generations and are the digital natives in the true sense that they grew up in a world of internet and smartphones.

Open data awareness in Nepal's young people is also an opportunity for increased civic awareness and engagement and participatory governance as well. Many businesses are emerging in Nepal that can use open data for adding values to their products and services. Young people are best suited to make innovative tools and products by making the best use of these Data. Open data awareness is an opportunity to fill the gap in education and better prepare young people in a rapidly changing world.

Through the program, the university students and youths will learn how to take direct and indirect benefits from open data so that they can use it in:

- For research and new projects
- For business intelligence and analytics
- For analysis and reporting
- To improve the skills of using new data tools and programming languages
- To build innovative solutions to tackle development challenges

## Expected Results

The expected result of the awareness program was to enhance awareness about use and benefits of open data to students and youths of different districts of Nepal. The program hoped to make the Open Data momentum of Nepal stronger, especially among the youth population. Through the open data workshop, the chances of trained youth population joining the open data ecosystem will increase, helping groom Nepal's future leaders and decision-makers to be data-driven. The ongoing work and data-driven initiatives conducted by different organizations will also reach more people through this program. As a result of the program, a significant number of human resources have become aware regarding the current data revolution in Nepal. More importantly, the program will help improve the chances of more open data startups and initiatives emerging in the near future in Nepal. Likewise, an increased capacity and awareness of open data in Nepal's present and future generation will also help to increase the potential for open-data-informed development decisions and accountability of responsible bodies.

# Activities

## Open Data Training Curriculum

Every successful concept and project in life requires a proper framework and planning. This relates to all processes, including education. Whenever we embark on any new plan or procedure, we need to make sure that we have all the plans drawn up. What is on offer, what are the resources that we have, what are the steps, which we need to take and what are the goals that we need to achieve are some elements that need to be looked upon. A similar set of constraints when applied to education in schools and colleges gives birth to the curriculum. A curriculum is a set of courses, including their content, offered at a school or university. The curriculum often contains a detailed list of subjects and the elements of teaching them. To organize the open data awareness program in a structured format and to generate resources which can be further use by others civil society and institution, Open Knowledge Nepal prepares an Open Data Curriculum as part of the project. It contains basic aspects of open data like an introduction, importance, principles, application areas as well as the technical aspects of open data like extraction, cleaning, analysis, and visualization of data. Topics like working with open data in Nepal, open data sources and projects from Nepal were also covered in the curriculum. The Open Data Curriculum was developed and coordinated by Kshitiz Khanal and Nikesh Balami.

Curriculum link: <https://goo.gl/4TCNhQ>

## Open Data Manual

To help improve the data literacy understanding of Nepali people, this Open Data Manual was prepared by the Open Knowledge Nepal as a reference and recommended guide for university

students, private sectors, and civil society. The manual was written on the basis of Open Data Curriculum. It is a compilation of information from a series of online resources covering key data topics to explain about open data - its benefits and technicalities - to those who are interested to use open data to make innovative tools for and add value to products and services, as well as to those who are planning to join the open data



ecosystem through new startups and ideas. The recommended readings, references and the guidance provided by the manual can be a great pool of resources for those interested in open data to improve their capacity, adding value in governance, education, civic engagement, journalism and more.

The manual also covers the technical aspects of working with data like data extraction, data cleaning, data analysis, data visualization and data publishing.

It was developed by Shubham Ghimire, Nikesh Balami, Sagar Ghimire and Firoj Ghimire of Open Knowledge Nepal and reviewed by Sanjog Sigdel - Kathmandu University, School of Engineering, Lieke Ploeger - Open Knowledge International and Kshitiz Khanal - Open Knowledge Nepal, the project's Chief Curriculum Developer.

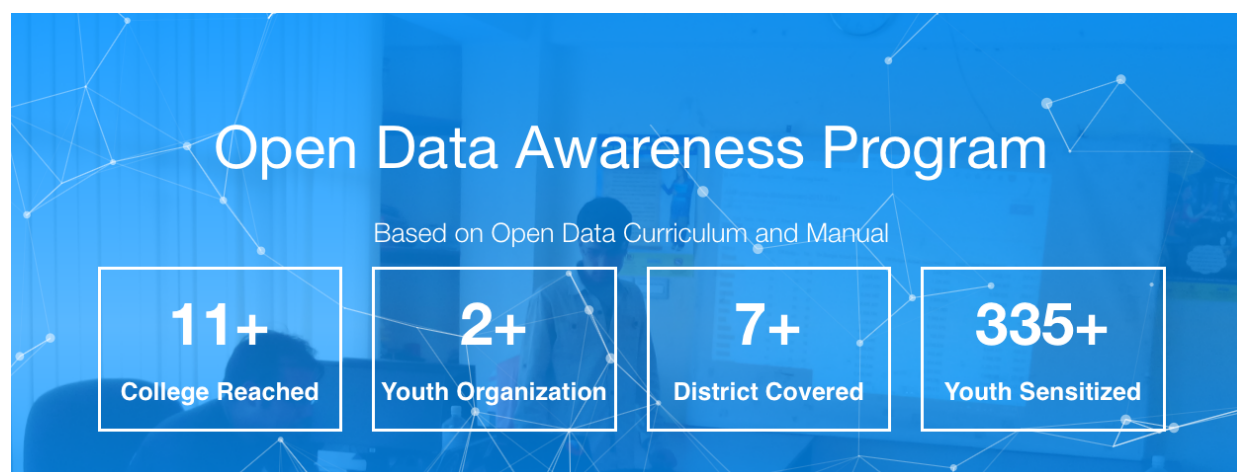
Download link: <https://goo.gl/1fuCdq>

## Open Data Manual Reviewing and Feedback Day

The Open Data Curriculum and the Open Data Manual review and feedback day was organized to discuss the structure and flow of resource in the close group for the suggestion. It was organized at the premises of Bscsit.com office, Bagbazar, Kathmandu. 5 students from 4 different colleges joined us to discuss Open Data Manual and Open Data Curriculum. The workshop was moderated by Nikesh Balami, CEO of Open Knowledge Nepal and observed by Nikki Sharma and Tirza Theunissen from the Data for Development program.

The list of participants is in Annex A-4

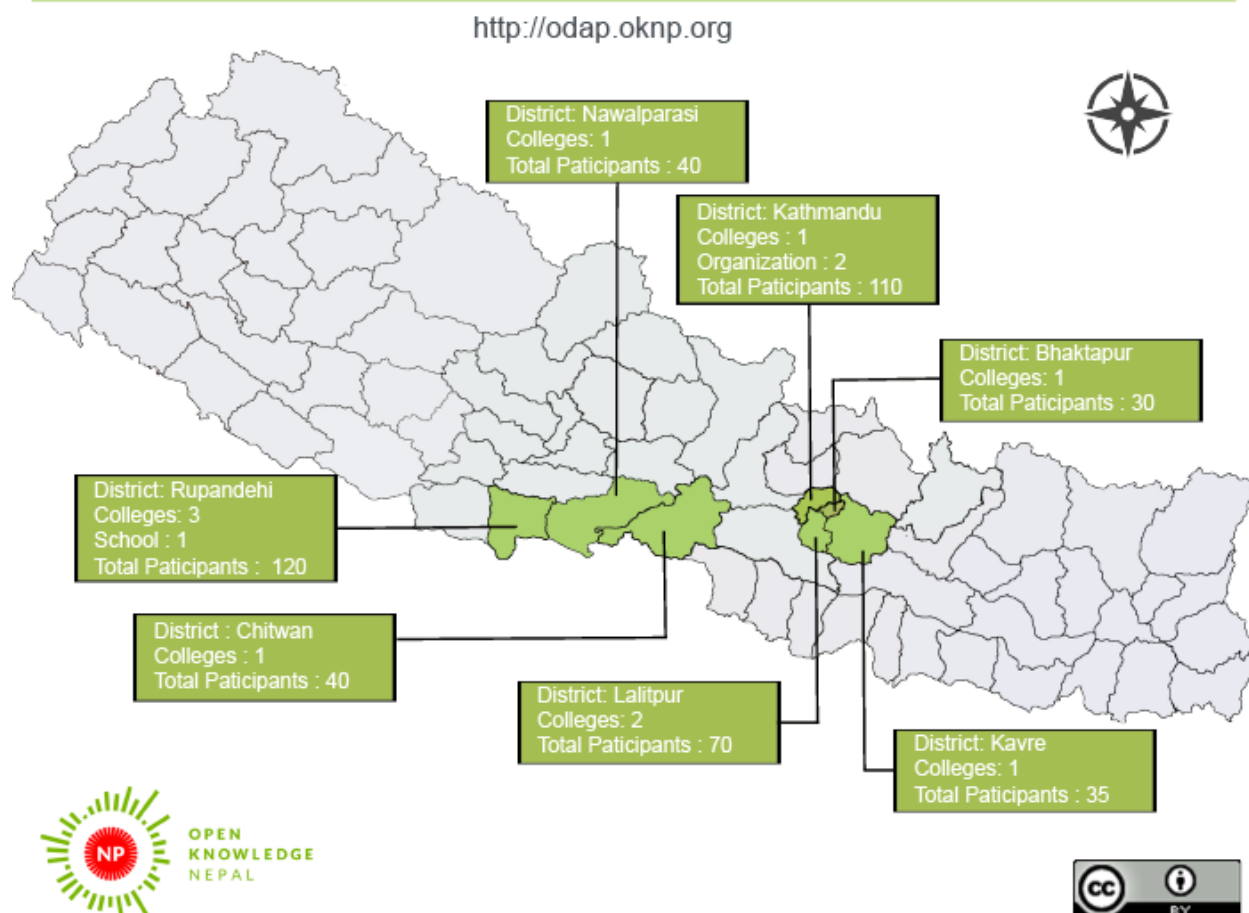
## Open Data Workshop in Colleges and Youth Organizations



Open Data Workshop conducted in 11 colleges and 2 youth organization, reaching more than 335+ youths is first of its kind conducted in Nepal. The representatives of Open Knowledge

Nepal visited 7 districts of Nepal with the Open Data Curriculum and the Open Data Manual to train youths about the importance and use of open data. Most of the participants who joined the workshop were from technical backgrounds whereas others are from different backgrounds like management, arts, journalism, social work etc.

## District Covered During the Open Data Awareness Program



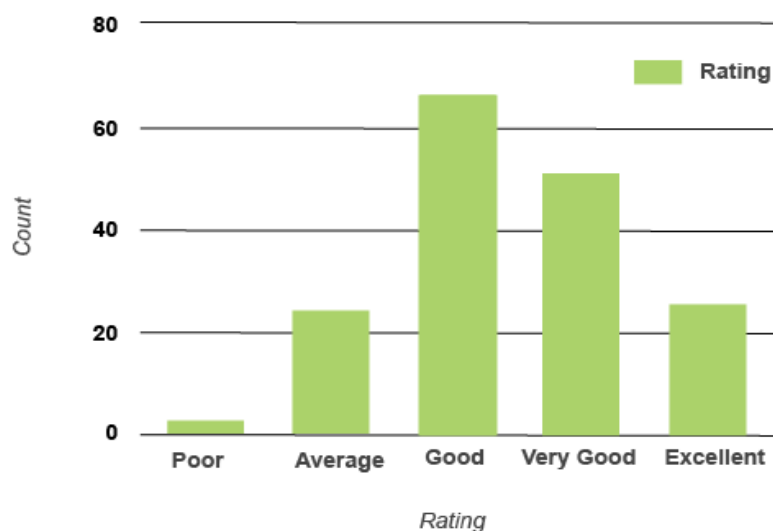
Based on the type of colleges and organizations we visited, for many open data was an entirely new topic and for some participants, it was something which they had read and learned in their college's course but haven't used it in their projects and others stuffs. Most of the colleges also have topics like data analysis, statistics in their college courses. The list of colleges and organizations were attached as Annex A-2.





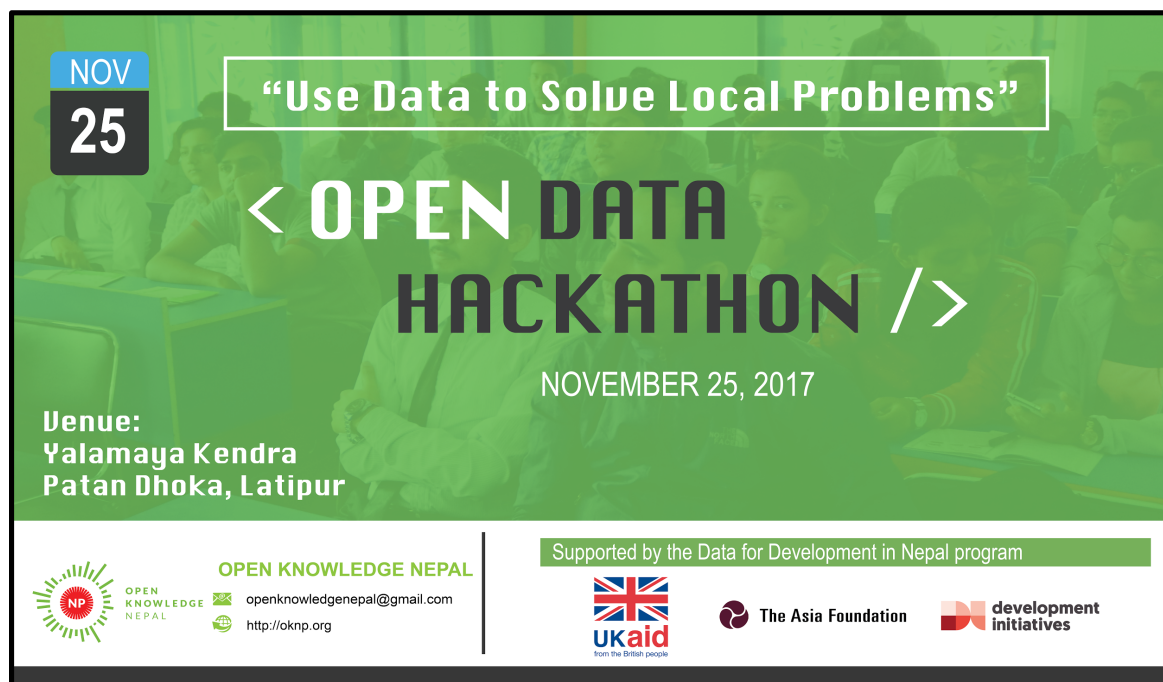
The trainers for the workshop were Mr. Nikesh Balami, Chief Executive Officer of Open Knowledge Nepal, Mr. Shubham Ghimire, Chief Operating Officer of Open Knowledge Nepal and Mr. Sagar Ghimire, Chief Technical Officer of Open Knowledge Nepal.

We conducted post survey during the open data workshops to collect participant's feedbacks. And collecting survey data, we analyzed it and found that many participant said that the workshop was very helpful to them. More than 75% participants said that the workshop had help them to understand the value of open data and had rated workshop as Good, Very Good and Excellent.



**Fig: Participants views on Open Data Workshop**

## Open Data Hackathon

A green-themed poster for an Open Data Hackathon. At the top left, a blue box contains 'NOV' and a black box contains '25'. A white box at the top center contains the theme: "Use Data to Solve Local Problems". The main title is '< OPEN DATA HACKATHON />' in large white and black letters. Below it, the date 'NOVEMBER 25, 2017' is written. The venue 'Venue: Yalamaya Kendra Patan Dhoka, Latipur' is listed on the left. The bottom section features logos for Open Knowledge Nepal, UKaid, The Asia Foundation, and development initiatives, along with contact information for Open Knowledge Nepal.

NOV  
25

"Use Data to Solve Local Problems"

< OPEN DATA  
HACKATHON />

NOVEMBER 25, 2017

Venue:  
Yalamaya Kendra  
Patan Dhoka, Latipur

OPEN KNOWLEDGE NEPAL  
openknowledgenepal@gmail.com  
http://oknp.org

Supported by the Data for Development in Nepal program

UKaid  
from the British people

The Asia Foundation

development  
initiatives

To conclude the long journey of [Open Data Awareness program](#) organized at different districts of Nepal, [Open Data Hackathon](#) was organized with the theme "Use data to solve local problems faced by Nepali citizens" at Yalamaya Kendra (Dhokaima Cafe), Patan Dhoka on November 25th, 2017. In hackathon, we bring students and youths from different background under the same roof to work collaboratively on different aspects of Open Data. At the event, participants shared their experiences of learning and working with open data and discuss ways to engage more young people in the open data movement in Nepal. Participants were from diverse fields. Some of them are developers, students, data analysts, data science engineers, where some are makers, UI/UX Designers, storytellers, artists etc.

To inspire participants, there was a presentation and demo session of successful open data initiatives in the very beginning. Where we showcase the different successful open data projects of Nepal. The projects were [Prepare Pokhara](#) from [Kathmandu Living Labs](#), [Nepal in Data](#) from [Bikash Udhyami](#) and [NepalMap](#) from [Code for Nepal](#). After the presentation teams were formed and each team was assigned a task of searching, scrapping and analyzing data of different government bodies. In the hackathon, there were more than 40 participants.

All the work done at Open Data Hackathon can be accessed from GitHub repo:  
<https://github.com/okfnepal/opendatahackathon>.

# Open Data Workshop Contents

Open Data Workshop at different colleges and youth organization were based on the Open Data Curriculum and the Open Data Manual. The whole workshop was divided into 4 modules - Introduction to Open Data, Working with Open Data in Nepal, Process of working with Data and Discussion and further planning, each of 30 minutes. There were 2 sessions - Presentation and Practical session. In practical session, there were demos of different open data projects led by government and civil society and also hands-on training of Data Scraping, Analysis, and Visualization using [Tabula](#) for scrapping, [Open Refine](#) for cleaning, analysis and [Datawrapper](#) for visualization.

## Presentation Sessions

In the presentation session the following topics were covered:

- Introduction about project and organization
- Introduction, principles and importance of open data
- History of open data and data revolution in Nepal
- Open data ecosystem of Nepal
- Situation of Open Data in Nepal - Highlighting the progress made
- Overview of different kinds of Open Data Initiative lead by government and CSOs
- Process to work with data in Nepal
- Different government, CSO's and International data sources
- Open data law and policies in Nepal.
- Brief about the open data licensing condition of Nepal

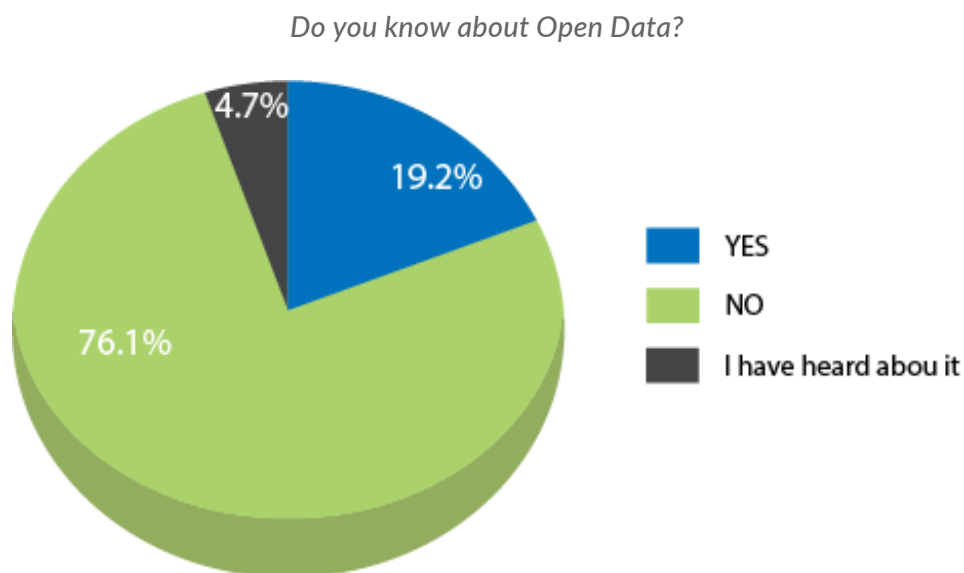
## Practical Sessions

In the practical sessions, the following topics were covered:

- Demo of different open data projects from Nepal - NepalMap, Election Nepal, Nepal In Data, Aid Management Portal
- Extracting data from PDF to CSV using Tabula
- Cleaning and analyzing data using Open Refine
- Data Visualization using datawrapper.de
- Publishing Data

## Facts and Findings

We conducted pre-workshop survey and post-workshop survey to the participants during the Open Data workshop conducted at different colleges and youth organizations of different districts of Nepal. The survey questionnaire can be found in Annex A-6. In pre-survey we asked them about their understanding on Open Data. The result is as follows:

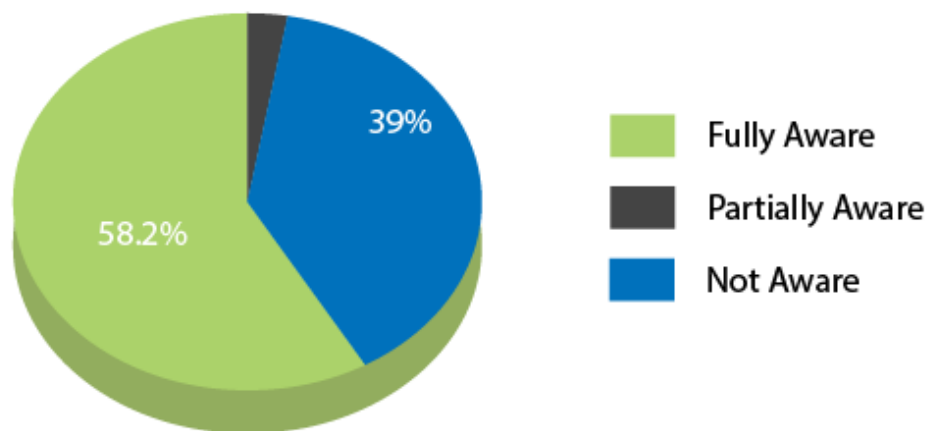


**Fig: Participants understanding on open data according to pre-survey**

Above chart shows that almost 76% of the participants do not know what open data is, 19% knows exactly what open data is and almost 5% have heard the term “Open Data”. This shows that most of the participants were unaware about the term open data. Participants ticked yes in this question gave their understanding of open data which is included in Annex-9 .

We also asked them about “Open Licensing” and the result is as shown below. According to the analysis almost 58% of the participants are not aware about open licensing, 39 % are partially aware about it and almost 3% are fully aware about it.

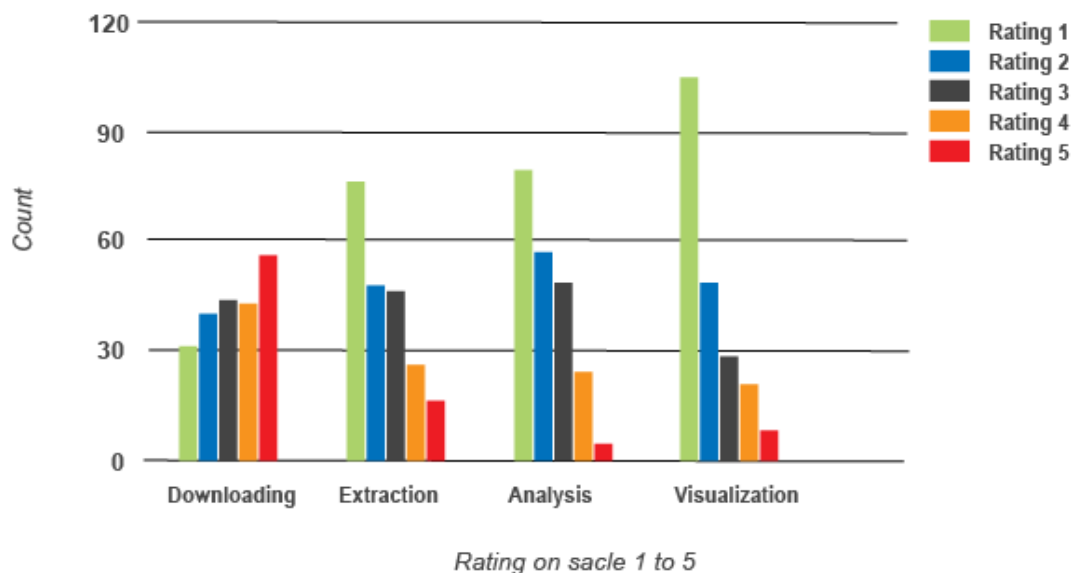
Do you know about Open Licensing?



**Fig: Awareness level of participants on “Open Licensing” according to pre-survey**

We asked the participants to rate in-between 1 to 5 to measure their expertise on Data Downloading, Extraction, Analysis and Visualization. The survey result highlighted that almost all participant know how to download data from the internet and only few know how to analyses and visualize those data.

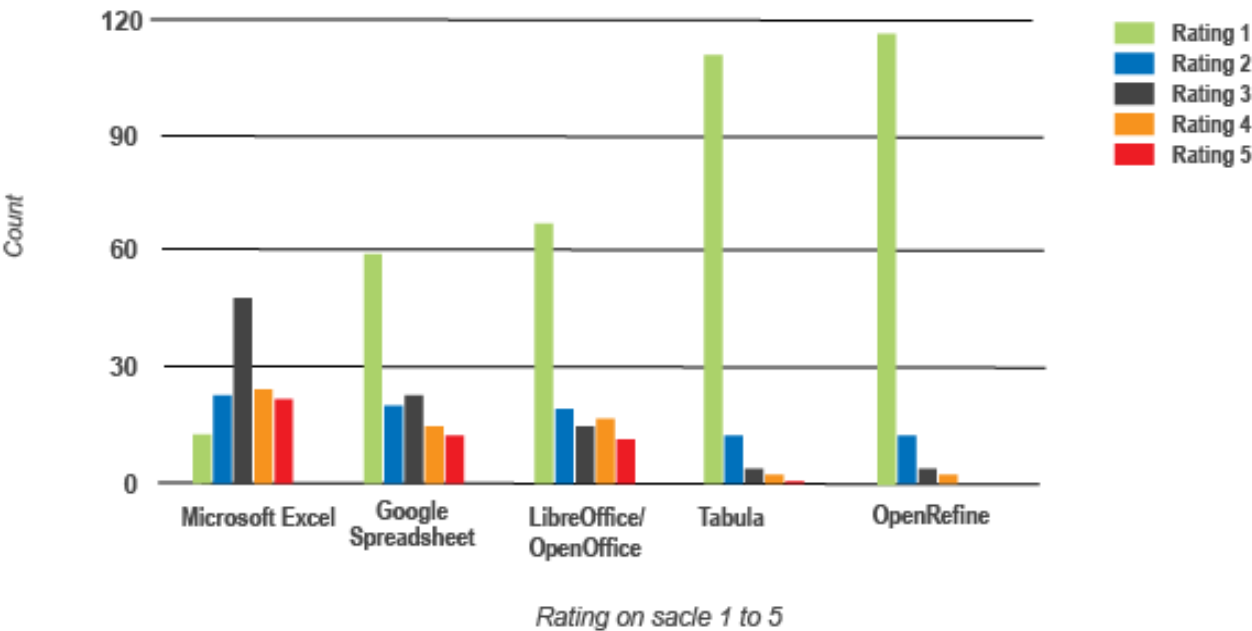
*Please rate how well you can perform the following acts?  
(1 = not aware, 5 = fully aware)*



**Fig: Participants expertise on Data Downloading, Extraction, Analysis and Visualization**

The survey had also shown that the most of the participants know how to use Microsoft Excel for analysis but only few know about the advance scraping and analysis tools like Tabula and Open Refine.

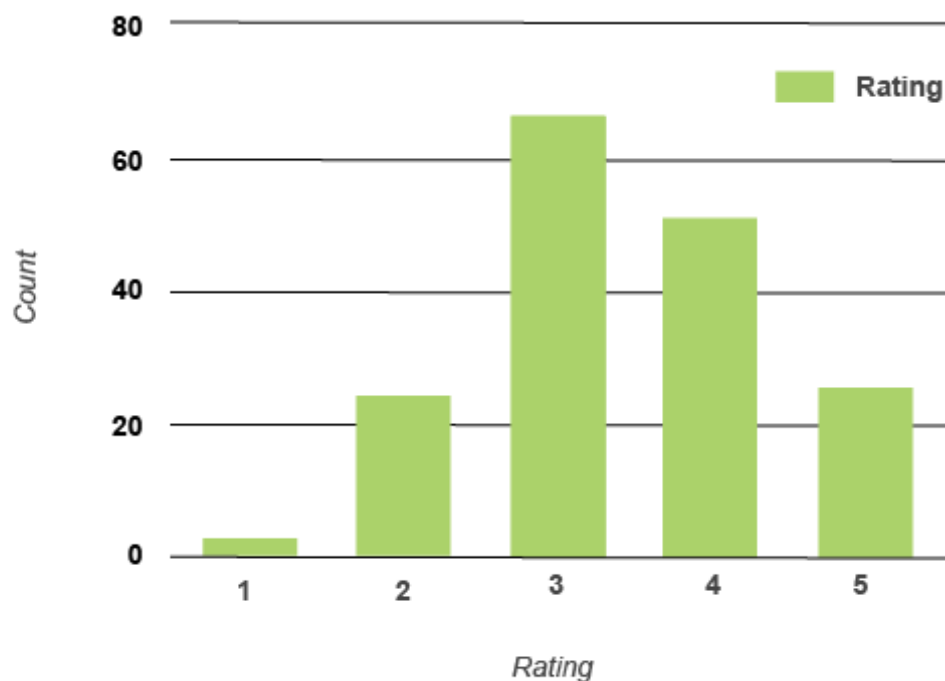
*Please rate how well you can use the following tools?  
(1 = not able, 5 = fully able)*



**Fig: Participant expertise of using different data tools**

In post workshop survey we asked them about their views on the workshop and their confidence level about Open Data after attending the workshop. The result is as follows:

*How confident are you now to use Open Data in your work?  
(1 = not confident to 5 = confident)*



**Fig: Participants confidence level about Open Data after attending workshop**

The workshop had also helped to boost the participant's confidence of working with open data in Nepal. More than 80% of open data workshop participants had said that the workshop had increased their confidence level of working with any kinds of open data projects.



## Conclusion

Raising Open Data Awareness to Nepal's Digital Natives was concluded on 30th November 2017 after the completion of Open Data Hackathon. The project had helped to grow the momentum of open data in a decentralized way. This is first of its kind which had reached 7 different districts of Nepal at once, sensitizing more than 335+ youths and students of Nepal about both technical and non-technical aspects of open data. This had helped to generate more technical human manpower who now can analyze and interpret data in better way by using software tools and programming languages. They can also use open licenses like Creative Commons in their content. The project had also helped to generated open data resources which can be further used by others civil society organization, institution and much more for their own purposes. Resources like Open Data Curriculum and Open Data Manual can be helpful for everyone who wants to dive into open data ecosystem of Nepal from the scratch.

## Follow-up action plan

As the open data momentum get bigger with more people and organization joining in - all kinds of open data projects now need follow-up action plan. The project Raising Open Data Awareness to Nepal's Digital Natives had also played a huge role to grow the momentum by sensitizing huge numbers of youths about open data, now things we need to do at first steps as a civil society organization is to be in touch with those youth frequently.

Some of the follow-up action plan which we had prepared are:

- Organize the awareness program yearly to sensitize youths of different districts of Nepal.
- Be in touch with college students and help them with open data projects.
- Provide all kinds of open data trainings to youth organizations to teach them how to use data tools.
- Lobbying of Open Data Curriculum within the different university and government organizations.

## Acknowledgement

Open Knowledge Nepal would like to acknowledge the generous support provided by Nikki Sharma, Louisa Dennison, and Tirza Theunissen throughout the project. In addition, the organizers are grateful to the Colleges and Youth organizations for providing us the opportunity to conduct the Open Data Workshop. We would like to express our gratitude to the following people from different colleges and organizations for helping us with open data workshops.

- Aadesh Shrestha - Swastik College
- Amit Chaudhary - Kathmandu Engineering College
- Ananta Pandey - Nepathya College
- Arun Kumar Pasyi - Indreni College
- Bijaya Khadka - Youth Initiative Nepal
- Madhu Pandey - Tinau Technical College
- Niraj Bista - FOSS Chitwan
- Pratit Raj Giri - School of Engineering, Kathmandu University
- Rajesh Gautam - Butwal Multiple Campus
- Saurav Thapa - YUWA
- Shubham Joshi - School of Engineering, Kathmandu University
- Subash Basnet - Kathford Engineering College
- Sudarshan Dahal - School of Arts, Kathmandu University

## Annexes

### Annex A-1 Open Data Awareness Program Module

Open Data Awareness Program was divided into 4 different module - Introduction to Open Data, Working with Open Data in Nepal, Process of with Data and Discussion and further planning. Where participants were facilitated through demos, hands-on, QA and interactive discussion.

Detailed planning for all 4 sessions:

First Module	Introduction to Open Data - Presentation
30 minutes	<ul style="list-style-type: none"><li>● Brief about project and organization</li><li>● Introduction and importance of open data</li><li>● History of data in Nepal</li><li>● Principles and types of data</li><li>● Data revolution and its value</li><li>● Open data ecosystem of Nepal</li></ul>
Outcomes: The goal of the first session is to aware participates about the global scenario of open data with the right practices and its meaning so, that participants can empower themselves to be more data friendly.	

Second Module	Working with Open Data in Nepal - Presentation
30 minutes	<ul style="list-style-type: none"><li>● Situation of Open Data in Nepal - Highlighting the progress made</li><li>● Overview of different kinds of Open Data Initiative lead by government and CSOs.</li><li>● Best way to work with data in Nepal</li><li>● Data sources</li><li>● Open data law and policies in Nepal</li><li>● Brief about the open data licensing condition of Nepal</li><li>● Sharing the contact details of CSOs</li></ul>
Outcomes: The goal of the second session is inspire participants by featuring the current situation of Nepal and letting them know about the possibilities of open data in coming days which they can grab to build innovative project which will impact the life of many Nepali citizens.	

Third Module	Process of working with Data (Technical) - Presentation
30 minutes	<p>Brief overview of the tools and process of working in data</p> <ul style="list-style-type: none"> <li>● Data Extraction</li> <li>● Data Cleaning</li> <li>● Data Analysis</li> <li>● Data Visualization</li> <li>● Publishing Data</li> </ul>
<p>Outcomes: The goal of the third session is to provide hands on training with some suitable examples to participants so that they can learn about the different tools which they can use while working with data. This will give clear understanding of the tools and decrease the chances of having confusing in coming days.</p>	

Final Module	Discussion and further planning
30 minutes	<p>Topics</p> <ul style="list-style-type: none"> <li>● How you can use data in your project, startup, research, campaign, studies to add more values</li> <li>● How you can be the part of ongoing Open Data momentum in Nepal</li> <li>● Right place to share your queries and ideas</li> <li>● Open Data Hackathon</li> </ul>
<p>Outcomes: The aim of the final session is to have some interactive discussion with participants so that we can know more about their interests, ideas and queries. Some planning of Open Data Hackathon will be also shared.</p>	

## Annex A-2 List of colleges and organizations

Open Data Awareness program was taken at 7 different districts of Nepal, where the representative of Open Knowledge Nepal sensitized more the 355+ youths of 11 colleges and 2 youth organization.

Districts	College/Institutions	Date
Nawalparasi	Lumbini ICT College	30th October 2017
Chitwan	Indreni College	30th October 2017
Rupandehi	Butwal Multiple Campus	2nd November 2017

Rupandehi	New Horizon Institute	2nd November 2017
Rupandehi	Tinau Technical College	3rd November 2017
Rupandehi	Nepathya College	3rd November 2017
Bhaktapur	Swastik College	5th November 2017
Kathmandu	Kathmandu Engineering College (KEC)	6th November 2017
Kathmandu	YUWA	7th November 2017
Kavre	School of Engineering, Kathmandu University	8th November 2017
Lalitpur	School of Arts, Kathmandu University	9th November 2017
Kathmandu	Youth Initiative, Nepal	20th November 2017
Lalitpur	Kathford Engineering College	22nd November 2017

### Annex A-3 List of Open Data Manual Reviewers

Reviewer Name	Affiliation	Email Address
Lieke Ploeger	Open Knowledge International	<a href="mailto:lieke.ploeger@okfn.org">lieke.ploeger@okfn.org</a>
Kshitiz Khanal	Open Knowledge Nepal	<a href="mailto:khanal1990@gmail.com">khanal1990@gmail.com</a>
Sanjog Sigdel	Kathmandu University, School of Engineering	<a href="mailto:sigdelsanjog@gmail.com">sigdelsanjog@gmail.com</a>

### Annex A-4 List of participants who attended Open Data Manual feedback day

Open Data Manual Feedback Day was hosted at the office premises of BscCSIT at Bagbazar, Kathmandu, which was facilitated by the Nikesh Balami and Sagar Ghimire from Open Knowledge Nepal, where they discuss the possible changes Manual needs to have to make it easy to understand for Nepali students. A student from four different colleges joins the event along with Nikki Sharma and Tirza Theunissen from Data for Development Nepal program.

Full Name	Affiliation	Email
Rahan Poudel	Orion college and Answer Nepal	<a href="mailto:rahanpoudel@gmail.com">rahanpoudel@gmail.com</a>
Rabi Raj Khadka	Neuromance R Creation	<a href="mailto:er.rabirajkhadka@gmail.com">er.rabirajkhadka@gmail.com</a>
Rabin Shrestha	Swastik College	<a href="mailto:danieldangol@gmail.com">danieldangol@gmail.com</a>
Aadesh Shrestha	Swastik College	<a href="mailto:aadeshhere1@gmail.com">aadeshhere1@gmail.com</a>
Bishwajeet Shrestha	Thapathali Campus	<a href="mailto:shresthabishwajeet@gmail.com">shresthabishwajeet@gmail.com</a>

### Annex A-5 List of Trainers

Open Data Workshop which was organized at 11 colleges and 2 youth organizations was facilitated by the staffs of Open Knowledge Nepal:

- Mr. Nikesh Balami  
Chief Executive Officer | Open Knowledge Nepal
- Mr. Shubham Ghimire  
Chief Operating Officer | Open Knowledge Nepal
- Mr. Sagar Ghimire  
Chief Technical Officer | Open Knowledge Nepal

### Annex A-6 Survey Questionnaires

## Pre-Workshop Survey

1) Full Name

2) Email Address

3) Institution / Organization

4) Do you know what open data is?

☐ No

☐ Yes

☐ If yes, please tell us what is your understanding of open data?

5) Did you learn about data, statistics, and analysis in your college courses?

☐ No

☐ Yes

☐ If yes, please select the statement which best describes your level of understanding:

☐ I have received comprehensive formal training in data, statistics and analysis

☐ I have received some formal training in data, statistics and analysis

☐ I have not received any formal training in data, statistics and analysis

6) On a scale of 1 to 5 please rate how well you can perform the following acts?

(1 = not aware, 5 = fully aware)

	1	2	3	4	5
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Data Downloading					
Data Extraction					
Data Analysis					
Data Visualisation					

7) Are you engaged with any kinds of open data projects?

☐ No

☐ Yes

☐ If yes, please mention your project

8) On a scale of 1 to 5 please rate how well you are able to use the following tools?

(1 = not able, 5 = fully able)

	1	2	3	4	5
Microsoft Excel					
LibreOffice/OpenOffice					
Google Spreadsheet					
Tabula					
Openrefine					
Other – please specify					

9) Which of the following formats are you familiar with?

☐ .xls

☐ .csv

☐ .txt

☐ .xml / .kml / .svg / .json

☐ .pdf

☐ Others .....

10) Do you know about Open Licensing?

☐ Not Aware

☐ Partially Aware

☐ Fully Aware

11) What are your expectations from this workshop?

### Post-Workshop Survey

1) Full Name

2) Email Address

3) Institution / Organization

4) What are the three things you really liked about the workshop?

5) What are the three areas that this workshop could improve in?

6) Has this workshop met your expectations?

- ☐ No
- ☐ Yes
- ☐ Partially

7) How confident are you to now use open data in your work?

(1 = not confident to 5 = confident)

1	2	3	4	5

## Annex A-7 Evaluation by Participants

### Feedback

- Good Information about Open data tools.
- Detail information about the current situation of open data.
- It gave a basic idea to initiate open data projects.
- Information about Right to Information Act and its process.
- Detail Information about open licenses like creative commons, its type and process of using it on intellectual property.
- Brief information about existing programming libraries (e.g. Beautifulsoup, Scrapy etc), software tools (Tabula, OpenRefine, Parse Hub) & the way of using them.
- Examples given by presenters were really good and they support the understanding of Right to Information (RTI), copyright issues and the process of working with open data.
- Good demonstrations of open data projects initiated by the government, private sectors and CSO.
- Effective hands-on training on extracting pdf to CSV using tabula software tool, cleaning the data using Open Refine and visualization using datawarpper.de

## Recommendation

- Make it less monotonous
- More basic information to those who are out of computer influence as technical words, terms are more often used.
- Detail information about the current situation of open data.
- It gave a basic idea to initiate open data projects.
- These programmers are very useful. Similar workshops should be organized at different levels
- More demos with student interaction would be helpful.
- This workshop should be extended as a whole day. Training program was excellent but it should be for a longer duration
- Everyone in the workshop must be given time to use practice on their own laptop.
- It will be better if there is pop up quiz between the presentation secession
- More emphasis should be given to practical sessions
- The training should be spread throughout the country
- It is motivated for people to working in the openness of data.

## Annex A-8 Participants expectations from workshop

- “Tools and techniques used in open data”.
- “Context of open data in Nepal involved organizations, how to get started and benefits and challenges.”
- “Learn about the state of open data and learn from people involved in open data.”
- “To be able to use open data in projects and further in future.”
- “Clear understanding of Open data projects, how one can be participated in projects, learn about open licensing and other applications on open data.”
- “Be well known for data extraction, analysis, and visualization.”
- “Information about open licensing and copyright issues”.
- “Know about various languages and tools used in data analysis.”
- “I hope to learn about open data and how to utilize the openness we have on using open data.”
- “To learn about basic knowledge, pros, and cons of open data with its scope and applications.”

## Annex A-9 Participants Understanding of Open Data

Participants understanding about Open Data before Workshop:

- “Open Data is those data which can be obtained in freely or easily through the internet.”
- “Legal data that is free to retrieve without restrictions.”
- “Data present in structured form and not locked in PDFs, and another unusable form.”
- “Open Data simply refers to the data that we can use for meaningful purpose freely without any restriction.”
- “Open Data is gallery or collection of data that is free to use by people in their project, research, and organization.”
- “Data which is easily shared with the public as their demand.”
- “Providing data to others for the public free of cost similar to that as open source but consisting of data.”
- “Data that we can use without violating ethics and laws.”
- “Data which the common can have easy access by using various communication tools.”
- “Data that is made available for everyone in a machine-readable format.”
- “The collection of information available to the public with free to use licenses mostly for any sort of purpose.”
- “Openness and availability of various information as data regarding different fields.”
- “Data that are open to view, access and utilize and data can be in different formats.”
- “Data that can be accessed by anyone, anywhere at the time of need.”
- “Data that can be used freely and can be used to create or manipulate data to build one.”

## Annex A-10 Hackathon Schedule

### Schedule

Time (NPT)	Activities
09:30 - 10:00	Registration and Kit distribution
10:00 - 10:15	Tea, Coffee and Networking
10:15 - 10:30	Welcome Speech, COO of Open Knowledge Nepal Mr. Shubham Ghimire
10:30 - 12:00	Presentation Session <ul style="list-style-type: none"><li>● Prepare Pokhara - Kathmandu Living Labs</li><li>● Nepal in Data - Bikash Udhyami</li><li>● NepalMap - Code for Nepal</li></ul>
12:00 - 12:40	Lunch
12:40 - 01:00	Team Division and Briefing
01:00 - 04:15	Hacking
03:00 - 03:15	Coffee break
03:15 - 04:15	Hacking continues
04:15 - 04:45	Presentation and Demo by Teams
04:45 - 04:55	Experience Sharing in Working with Open Data in Nepal, Chairman of Open Knowledge Nepal Mr. Kshitiz Khanal
04:55 - 05:10	Certificate Distribution
05:10 - 05:20	Thank you speech, CEO of Open Knowledge Nepal Mr. Nikesh Balami
05:10 Onwards	Group Photo, Coffee and Networking

## Appendix



Appendix 1 Youth Initiative Nepal



Appendix 2 Tinau Technical College





Appendix 3 Swastik College



Appendix 4 School of Arts, Kathmandu University





Appendix 5 New Horizon Institute



Appendix 6 Nepathya College





Appendix 7 Lumbini ICT College



Appendix 8 School of Engineering, Kathmandu University





Appendix 9 Kathmandu Engineering College (KEC)



Appendix 10 Kathford Engineering College





Appendix 11 Indreni College



Appendix 12 Butwal Multiple Campus





Appendix 13 Open Data Hackathon