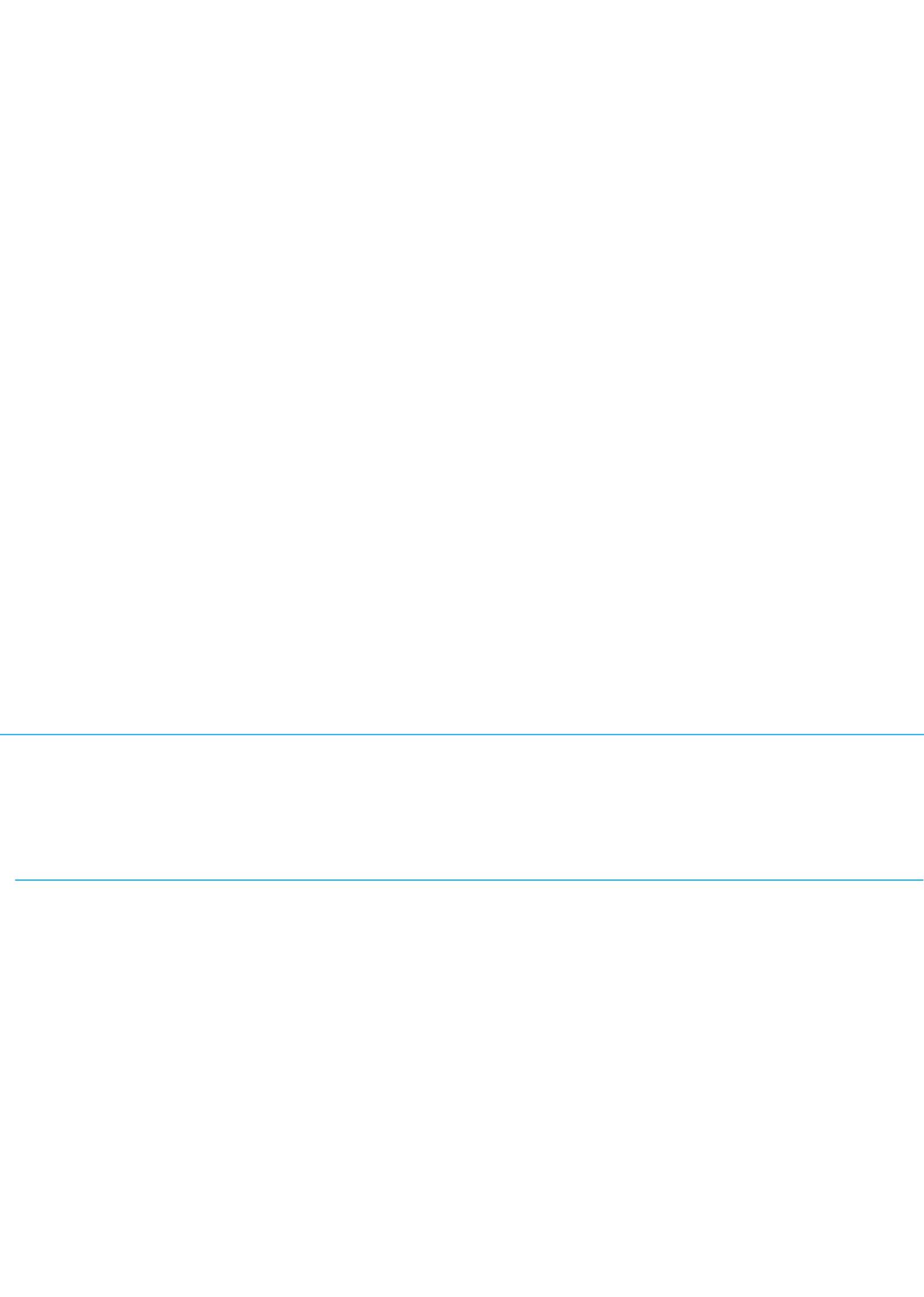


# Models for Sourcing, Creating and Curating Content on Learning Platforms

**National Urban  
Learning Platform (NULP)**

An Ecosystem Approach  
to Capacity Building





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An Ecosystems Approach to Capacity Building

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Anchor Institute  
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# Foreword



The Ministry of Housing and Urban Affairs (MoHUA), in collaboration with the National Institute of Urban Affairs (NIUA), and support from the Department for International Development (DFID) of the UK Government is operationalising the National Urban Learning Platform (NULP) component of the National Urban Innovation Stack (NUIS).

NULP is envisioned as a means of digitally consolidating key knowledge and skills required by urban stakeholders and making these available to all actors on the digital channel of their choice.

The platform is proposed to primarily empower India's urban functionaries, administrators, elected representatives, civil society, industry actors and other ecosystem players to build smart, inclusive, sustainable and resilient cities.

The principles of public participation which forms the cornerstones of the Smart Cities Mission has been adopted in the National Urban Learning Platform. The NULP program will oversee the selection of a few pilot and early adoptive cities to ignite long-term adoption of the program. Feedback received through its users would help determine platform efficacy and enable continuous improvement.

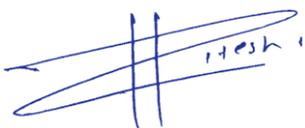
Embedding innovation and collaboration in city-level functioning forms the core elements of the program and remains the primary objective of NULP. Thus, NULP, is expected to be a watershed initiative for capacity building in urban development in India, one that will pioneer training and upskilling into a new era.

This document, part of a series of knowledge products showcased through the program, intends to present a summary of features pertaining to the program and functionalities of the digital infrastructure. While some will be available in the initial stages of program deployment, the documents are intended to be iterative and will undergo revisions at different stages of program maturity. Hence, these knowledge products are purposed to document the various stages of platform development in alignment to the vision of NULP.

I congratulate and thank all partner agencies working hard to envision and develop NULP for its intended mission in Urban India.

I sincerely hope that this document will serve as a valuable source of reference for other cities/prospective users looking to develop similar platforms.

We look forward to receiving your inputs to continually enhance the platform's design.

A handwritten signature in blue ink, appearing to read 'Hitesh Vaidya', with a stylized flourish above it.

Hitesh Vaidya  
Director, NIUA



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# Glossary

	<b>Definition</b>
NULP	National Urban Learning Platform
MoHUA	Ministry of Housing and Urban Affairs
NIUA	National Institute of Urban Affairs
ULB	Urban Local Body
CPMU	Central Program Management Unit
SoP	Standard Operating Procedures

# Introduction & Context

The Ministry of Housing and Urban Affairs (MoHUA) launched the setting up of the National Urban Innovation Stack (NUIS) to enhance outputs and delivery of citizen services through the implementation of efficient tech-enabled mechanisms embedded in City Ecosystems. In this regard, one component of the NUIS is operationalised through the National Urban Learning Platform (NULP) envisioned as a platform to facilitate a learning environment through modern techniques of knowledge and skills transfer. Supported by the Foreign Commonwealth Development Office (FCDO), the initiative is anchored by the National Institute of Urban Affairs (NIUA) to ensure that the upskilling, training, awareness and information sharing expectations of member cities and its stakeholders are met in a collaborative environment.

It is envisaged that partner organisations/ will play an integral role in contributing primarily to NULP's content repository. Urban sector is one of the important sectors which offers a variety of citizen centric services, and to deliver these services in an effective manner the sector is evolving day by day with newer technology-based solutions, hence to understand the emerging sector and to understand new technologies there is high demand for good quality content and learning materials. It is also observed that capacity building of municipal bodies remains a largely ignored space and needs to come to the fore. Also, it is also evident that ULBs lack pathways to learning providing technical skills for various municipal functions. ULBs are themselves not equipped to create content without proper training or capacity building support. Hence, partner onboarding is a crucial activity to source quality content from external sources i.e. all actors of the quadruple helix, like, Government functionaries, Industry Partners, Academicians and Citizens. Partners are to be actively engaged to create, evolve and upgrade high quality content for NULP.

Capacity building is one of the crucial activities which strengthens the knowledge, abilities, skills and behaviour of individuals, while improving institutional structures and processes such that the organisation can efficiently meet its mission and goals in a sustainable way. Training is one of the important components of capacity building, right kind of training to right employee at the right time is an important activity which an organisation looks for. It's one of the very crucial activity to effectively manage the human assets.

Functional areas of municipalities are municipal finance, water, sanitation, licensing, waste management are name a few, as ULBs are fourth layer of administration and are operating at local level hence ULBs act as a bridge between citizens and local level for providing various citizen engrossed services. In the rapid changing environment technology play a vital role in service delivery. Municipalities are now converting into smart municipalities and adopting new technologies, which require more skilled and technical manpower, hence the need of capacity building and training is rising rapidly.

The NULP is envisaged to become a knowledge repository of quality content to satisfy the need of learners of the urban sector. While NULP aims to create capacity in the system it also aims to develop an ecosystem of partners who can help building capacity, evolve better ways to create content and can also directly contribute high quality content towards building a large, open & relevant content repository for NULP. In this endeavour to create pool of excellent content, onboarding of distinguished content partners from the various domains will play an important role.

NULP will help the ULBs/Cities to streamline its learning journey and provide a knowledge sharing forum to leverage different knowledge resources such as SOPs, manuals, research papers, best practices etc. Using the platform, the process of conducting training programs, seminars, circulating SOPs, manuals will be automated. The platform is built not only to facilitate the municipality but also the other stakeholders associated with it as per quadruple helix.

While NULP aims to create capacity in the system it also aims to develop an ecosystem of partners who can help building capacity, evolve better ways to create content and contribute high quality content towards building a large, open and relevant content repository. In our endeavour to create a pool of excellent content we will be onboarding distinguished content and platform development partners from the various domains.

NULP proposes the association with the eminent partners from industries, academic institutions, research organisations and other institutions to share their learnings of working in specialised domains of the urban sector. The partners may associate with NULP for any of the following:

- Contribution of available content
- Creation of content as per need of the program's Central Program Management Unit (CPMU)/City Leadership
- Knowledge partnerships for scheme/programs/missions being implemented at centre or state level.
  - Designing of training and learning modules
  - Participation in Webinars/conferences
  - Participation in research as per requirements
  - Designing certification programs for users
  - Creation of blogs
  - Designing best practices, research papers and success stories
  - Support for Thematic area activation and sharing of subject matter expertise

This document outlines the strategy to enable content on the platform leading to effective and meaningful learning pathways for the users. This is meant to be iteratively developed at different stages of program maturity.

# Scope of Partnerships

The NULP is designed to support and grow from interactions for learning activated between ecosystem-based partnerships of the quadruple helix i.e. Academia, Industries, ULBs and Civil Societies. The purpose of these partnership would differ with each partner and the scope of convergence with program priorities. Some of the envisaged partnership models and proposed associations is depicted in the table below:

Sr. No	Probable Partners	Type of association	*Requirement of Content type
1	ULB (Municipal Officers/ Staff)	Long term	<ul style="list-style-type: none"> <li>Roles &amp; Responsibility of Municipality and Individual</li> <li>Learning from 74th Constitution Amendment and 18 Identified reform Areas</li> <li>Best practices of Municipal Functions</li> <li>Certification Courses on various municipal areas</li> <li>SOPs and Manuals of ULB processes</li> <li>Trainings on key module requirements i.e. Property Tax, Double Entry accounting system etc.</li> </ul>
2	Industries	Long term	<ul style="list-style-type: none"> <li>Details of Participation in CSR Initiatives (Swachh Bharat, mission level associations etc.)</li> <li>Showcases of ULB specific smart solutions</li> <li>Social Indicators at ULB level</li> <li>New trends w.r.t. municipal areas</li> <li>Research papers in specific areas</li> <li>Create manuals for tools, parts and software used by them in the ULB</li> <li>Paid courses with video tutorials about the usage of these tools and technologies along with certification of completion</li> </ul>
3	NGOs/ Civil Societies	Short term (program level)	<ul style="list-style-type: none"> <li>Participation in various social programs</li> <li>Social Indicators at ULB level</li> <li>Global issues such as climate change, global warming, cleaning of rivers etc.</li> <li>Best Practices for community engagement and collaboration</li> </ul>
4	Academia	Long term  (Educational institutions, training centers, etc.)	<ul style="list-style-type: none"> <li>Courses and Modules in specialised areas such as town planning, Water and Sanitation, emerging technologies</li> <li>Designed Certifications and accreditations</li> <li>Sectoral Best Practices and upcoming trends</li> <li>SOPs and response planning support</li> <li>Creation of learning materials for gaps pertaining to research</li> <li>To create live lectures and share their courses online on NULP</li> <li>Co-create content with other academicians</li> <li>Post blogs about their research and findings</li> </ul>

*\*Note: Table only suggest indicative areas of contribution however partners can propose any area of urban domain for association*

The purpose of the partnership is to build an ecosystem wherein a partner can contribute quality content and act as a knowledge partner on NULP. Partnership may be invited to manage, built, create urban domain specific content, allowing multiple contributors to create, edit and publish their content. The content once publish on the portal can be use and re-use by any user and would be made available for consumption of common citizens. Below is an indicative list of various urban reform areas as per 74th constitutional amendment the partners are requested to contribute on the portal for following specific municipal areas:

Sectors	Sub-sector	Type of content
Housing	Pradhan Mantri Awas Yojna	<ul style="list-style-type: none"> <li>Understanding of scheme</li> <li>Best practices of implementation of similar scheme in other countries</li> </ul>
Sanitation	Solid Waste Management	Best practices
	AMRUT	Understanding of scheme
Municipal Finance	Property Tax	<ul style="list-style-type: none"> <li>Understanding of the module/schemes</li> <li>Best practice</li> <li>Research paper</li> <li>Training modules</li> </ul>
	Octroi	
	licenses and service charges	
	<ul style="list-style-type: none"> <li>State/Central</li> <li>Governments loans and borrowings</li> </ul>	
Disaster Management	Natural Disaster	Research Paper Best Practices
	Man Made Disaster	
	Climate change & Global Warming	
Citizen Centric Services	Issue of Birth and Death Certification	Technical understanding of the module
	Marriage Registration	
	Trade Licenses	
	Fire NOC	
	Building Plan Approval	
Sewerage and Storm Water Drainage	<ul style="list-style-type: none"> <li>Sewage treatment</li> <li>Wastewater</li> </ul>	<ul style="list-style-type: none"> <li>Process &amp; understanding</li> <li>Research paper</li> <li>Best practices around the world</li> </ul>
Transport	Smart Transport	<ul style="list-style-type: none"> <li>Smart Transport Learnings</li> <li>Best Practices</li> <li>Research Findings</li> </ul>
Waste Management	<ul style="list-style-type: none"> <li>MSW</li> <li>Effluents other than sewerage</li> </ul>	
Roads	<ul style="list-style-type: none"> <li>Traffic Management</li> <li>Green fuels</li> </ul>	
Environment	<ul style="list-style-type: none"> <li>Pollution</li> <li>Indigenous flora and fauna</li> <li>Urban forestry</li> </ul>	
Housing	<ul style="list-style-type: none"> <li>Affordable housing</li> <li>Availability of rented housing policies around housing</li> <li>Inclusive housing through Town Planning</li> </ul>	
Safety and Security		<ul style="list-style-type: none"> <li>Rules and regulation around the world</li> <li>Best practices</li> </ul>
Town Planning	<ul style="list-style-type: none"> <li>Land and Estate Management</li> <li>Dynamic Planning</li> <li>Integrated Planning</li> <li>Transit-oriented Development</li> <li>Slums</li> </ul>	<ul style="list-style-type: none"> <li>Global Best practices</li> <li>Research papers</li> <li>Training Manuals</li> </ul>
Energy Management	<ul style="list-style-type: none"> <li>Management of Building Energy Consumption</li> <li>Cost Reduction Mechanisms</li> </ul>	
Education	Smart Education	
Healthcare	Effective healthcare	
Industry	<ul style="list-style-type: none"> <li>Agriculture</li> <li>Manufacturing Services</li> <li>Cluster servicing</li> <li>Informal sector</li> </ul>	<ul style="list-style-type: none"> <li>New trends and technologies</li> </ul>
Other probable topics for content creation: Recreation, Population, Migration, Poverty, Inequality, Marginalisation, Society and Culture, Inclusion (Gender, differently abled) and Sustainability, Urban local economy, Heritage, Food security		

# Content Strategy

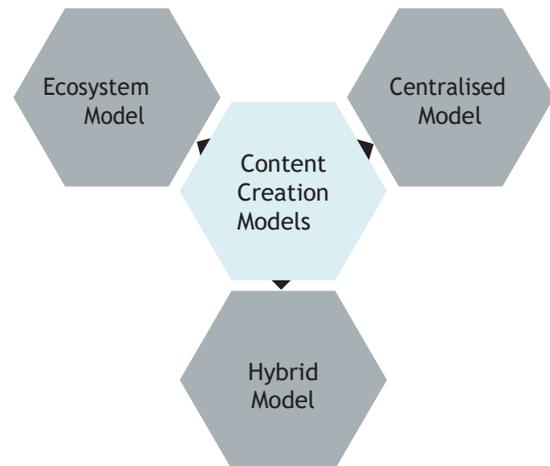
The content strategy is divided into two parts -

1. Content Creation
2. Content Review

Within these two parts, all the steps involved in content strategy are explained.

The first and foremost requirement for content strategy is the creation of content outlined through the following 3 possible models:

1. Centralised model of content
2. Ecosystem model of content
3. Hybrid model of content



## 1. Centralised Model

A centralised model is when there is a 'Content Cell' created in the CPMU/City Leadership and all the content efforts are decided by the content cell only. Driven largely by the program and thematic area priorities set by the CPMU/City Leadership, the content cell would decide whether the content is created within the CPMU/City Leadership or outsourced, or both. The timelines for workshops and other content development activities would be outlined by the content cell team members.

At the city-level, a content cell can consist of a senior ULB official acting as the Chief Learning Officer (CLO) who will primarily manage the content requirements and guide the team working for this function. Further to these developments in different sectors of the city will be explored through workshops, content outsourcing to the content partners and regular engagement with content creators and content reviewers. Following which roles of content creators and reviewers will be divided amongst the team of officials. Documents like SOPs and manuals might require a structure set by the content cell for implementation.

## 2. Ecosystem model

This model is chosen when there is no content cell structure at the CPMU/City Leadership. The content creation guidelines are finalised as per the priorities set by quadruple helix actors forming partnerships with the CPMU/City Leadership. Demand of the citizens and officials forming the learner base of NULP are communicated through industry partners, organisations, academicians, civil societies and their presence in the ecosystem. Development and management of the content/course will remain solely in the hands of the content creator. For the purpose of content review, the CPMU/City Leadership might assign a team to review all the content or samples of the same.

## 3. Hybrid model

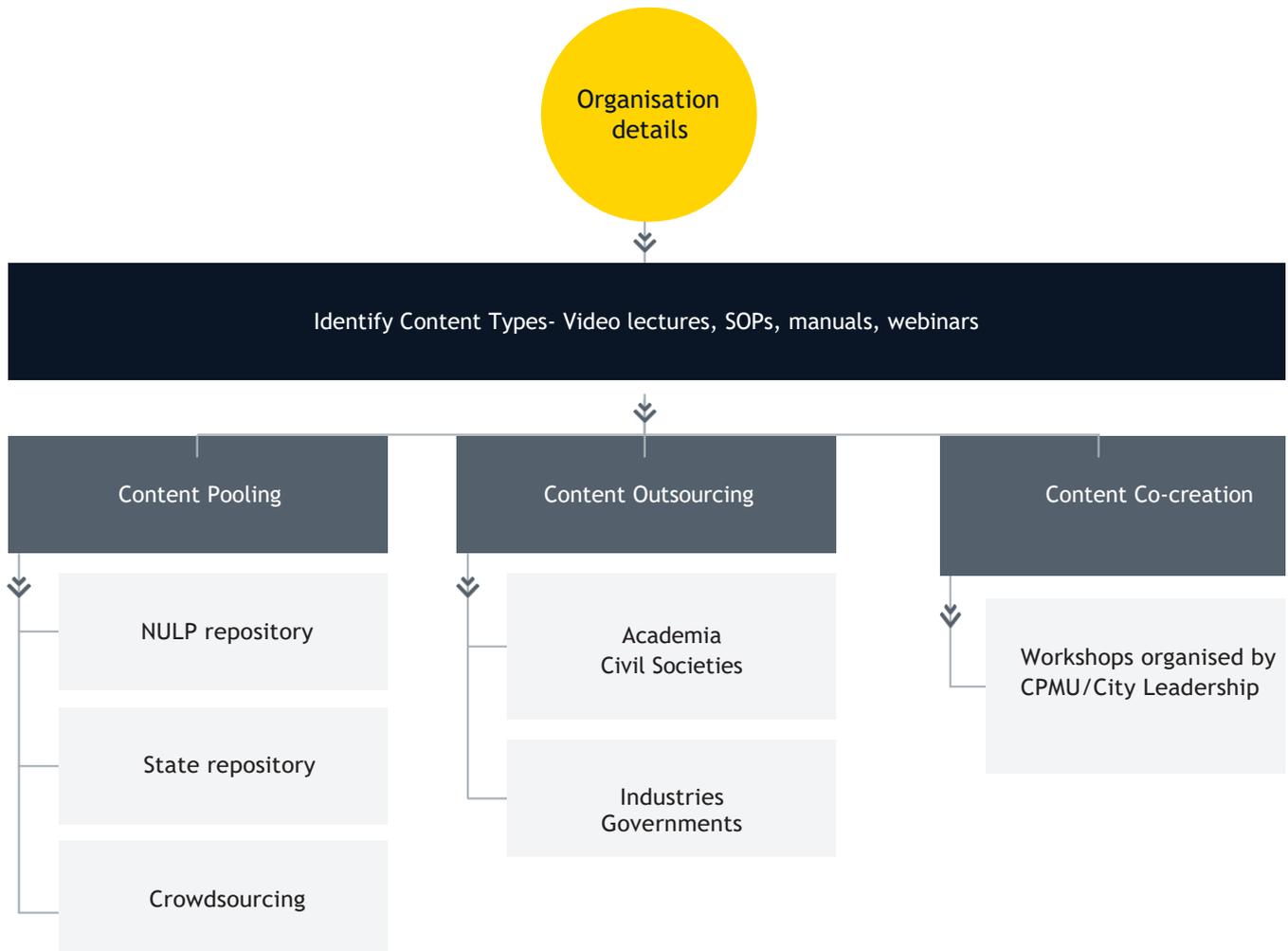
This is the most practical model of content strategy through which some content formats are managed by the Content Cell, while some are managed through the ecosystem. For instance, content pieces like certification courses, SOPs, manuals can be a part of centralised content strategy whereas, modules, assessments, blogs, research works can be a part of ecosystem model.

The CPMU/City Leadership can choose the model they wish to operate on basis the resources available and the feasibility of implementation.

After deciding the content strategy model, the next step is assessing content requirements for the ULB/s. The CPMU/City Leadership will analyse the sectors for which the content is required and their subsequent content types for each sector. The content types can be certifications, assessments, video lectures, SOPs and manuals, etc. Only after understanding the content requirement should the process of content outsourcing/creation start.

# Content Creation

This section mentions the steps involved in creating content strategy for CPMU/any City Leadership. An overview of the content creation strategy can be viewed through the table below:



## 1. Define Purpose

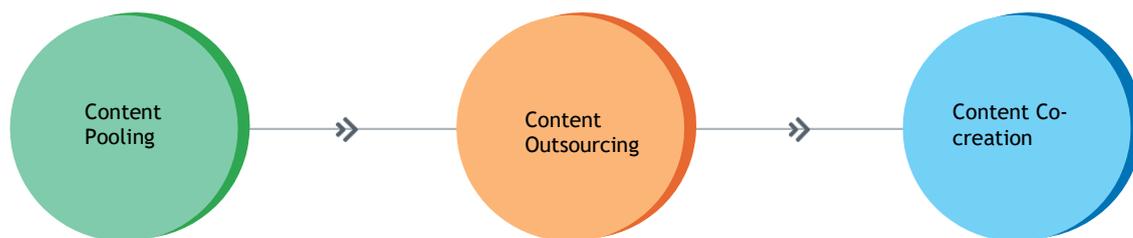
Every ULB must start their content journey on NULP with defining the purpose they wish to achieve with NULP implementation. The purpose for some ULBs may be to conduct online certification courses for the officials, whereas, for some the purpose might be to conduct training for citizens and some might require NULP only for publishing video contents on tools and techniques used in different sectors.

## 2. Identify content type

Content types can range from video lectures, certification courses, assessments, SOPs, manuals, blogs, PDFs, webinars. The ULB must choose which all content types will be suitable for their decided purpose for NULP.

## 3. Identify content sources

After identifying the required content types, the content sources need to be analysed from any of the 3 suggested sourcing models - Content Pooling, Outsourcing or Co-creation.



Designed as a simplistic and easy to implement content sourcing strategy, **Content Pooling**, will require lesser time and involvement from the contributing teams as CPMU/City Leaderships might have some content readily available as a part of the city/ state content repository. Alternatively, the CPMU will maintain a central repository of content accessible to all ULBs for consumption basis the requirement.

If the content requirement is not fully met by content pooling, City Leaderships can crowdsource content by opening the requirements to ecosystem actors urging participation for creation of content as per the guidelines to be shared on NULP. **Content Outsourcing** can be explored through identified quadruple helix partners who are engaged in different functions of the ULB providing tools and technology for functioning of the ULB. The partners can contribute through the creation of SOPs, manuals, training for using the tools and technologies deployed by them in the ULB functioning among other areas.

Content partners who can contribute content on various topics identified as priority can be reached through different channels which are highlighted below:

<b>Network Communication</b>	<ul style="list-style-type: none"> <li>• Contacting content providers which are already a recognised network for the city/ state/ country</li> <li>• Outreach for content localisation (translation and dubbing to local languages), editing content to give context, content curation and content reviews</li> </ul>
<b>Content Landscaping Longlist</b>	Designed as an evolving document with the CPMU/City Leadership, this would enlist sectors and key ecosystem partners for enabling learning and knowledge sharing.
<b>EOIs received through Content Providers</b>	As the program scales, EOIs/intent for partnership will be received through the digital infrastructure which will further aid content scoping and development.
<b>Industry Partners</b>	Many organisations create content, video lectures on various sectors as a part of their CSR activity. Such organisations can be contacted for content contribution on NULP
<b>NGOs/Civil Societies</b>	NGOs engaged with ULBs or forming formal/informal partnerships can share the scope and impact of their work undertaken with the ULBs
<b>Secondary Research</b>	Ongoing secondary research across department and City Management Team is ideal for updated outreach to ecosystem actors

The last option for hosting content on the platform is Content Creation. In this stage the requirements for learning and produced and consumed in-house to develop a ‘prosumer’ approach. This is recommended as the most effective approach for development of content and to meet the broader learning goals for ULBs in India. Primary design of the NULP is designed to create an ecosystem of prosumers contributing to the dynamic environment of knowledge consumption to better deliver citizen services.

Teams at the CPMU/City Leadership will decide the approach on content creation and will be provided the required credentials to ensure that all the pooled, outsourced or created content is live on the platform. However, a thorough review and adherence to internal standards is critical to ensuring user experience of learning is that of quality.

## Content Review

Every content on the platform that goes live for consumption in NULP needs to be reviewed first. The CPMU/every ULB must allocate a team of content reviewers for this step. The CPMU will be a central level nodal agency mandating and updating standards for content review which will ensure quality and traction of engagement on an ongoing basis. This is also because many content partners contribute content at the central level and not at the ULB specific level

Additionally, when a content partner is engaged to create content, 25% of all content must be chosen through random sampling for review. For instance, if the content partner has submitted one course with 20 modules, then 4 modules should be reviewed

The following table summarises the main pointers to be considered for content review:

Category	Description	Guideline Elements
Zero tolerance criteria	Content displaying any of these factors should be removed	<ul style="list-style-type: none"> <li>Factual error</li> <li>Discriminatory / defamatory elements</li> <li>Content Licensing limiting public viewing</li> </ul>
Hygiene factors	Content should meet these basic sanity check	<ul style="list-style-type: none"> <li>Visual clarity</li> <li>Audio clarity</li> <li>No technical glitches</li> <li>No missing elements</li> <li>No language errors</li> <li>No tagging issue (relevance)</li> </ul>
Explanation Modules		For video content on the platform, ideally downloaded versions should be uploaded on the platform. However, for sharing of YouTube links, it is advisable to check if these are hosted on the organisation/ULB accounts as opposed to third party accounts, so as to eliminate chances of redundancy/invalidity in case it is deleted from the respective channel at a later stage
Practice Modules		Completion of Q-A sets with proofreads
Qualitative factors	Content should display pedagogical quality	<ul style="list-style-type: none"> <li>Mapped to Course requirement</li> <li>Simple and easy language</li> <li>Good articulation</li> <li>Adequate structure and flow</li> <li>Good presentation</li> <li>Local contextualisation</li> </ul>
Content Explanation		<ul style="list-style-type: none"> <li>Explain multiple aspects of topic</li> <li>Adequate closing and ending</li> </ul>
Practice Content		Trigger further thinking / critical reasoning
Certification Specific factors		<ul style="list-style-type: none"> <li>Assessment should be used</li> <li>Should provide adequate instructions for passing the certification</li> </ul> Certificate format should be clear

# Content Development Guidelines

This section constitutes guidelines for the effective management of content on NULP. It includes the practices that a content provider should adhere to in order to manage the content in the platform efficiently. This also supports the contributor to allow their content to be discovered by relevant users and based on search.

The content providers are encouraged to understand the content lifecycle within the platform and accordingly set structures within their organisation to ensure the uploaded content meets NULP expectations. This includes appointing a reviewer who will be accountable for publishing content from that organisation.

## Overview

A content is a piece of knowledge that is published on the platform. All contents published in the platform should have a learning objective and target audience.

The organisation of content is very important so that it serves the purpose for which it has been created. In order to make the content available for the wider range of audience it needs to be structured very efficiently. IN NULP a content can be available to the audience by resources and courses.

## User Types

The digital infrastructure of NULP will be three types of users as follows:

1. **Admin User:** The admin user will do the overall maintenance of the contents added to the platform. They will administer the contents and courses added by contributors and also determine user roles within the platform.
2. **Contributor User:** The contributor user will add relevant courses and content to the platform. They will also be able to upload content.
3. **Consumer User:** The consumer user will be able to view and enroll in content and courses.
4. **Public User:** Any user who has not signed in and can access publically available data.

The admin users within the platform can upload content, create collections and organise them into modules. This allows the uploaded files to be later used by the end users.

## Content Creation

Contributor Users can create batches for the different courses and assign Consumer Users to complete the course. Every Content that is present on the NULP portal can be uploaded as a PDF, video, or audio file is treated as a *'resource'*.

Each and every *'resource'* on NULP follows the below mentioned Life Cycle:

1. **Resource Upload** - Content is uploaded onto the platform
2. **Resource Approval** - Content is sent for Review to the Approver
3. **Resource Publishing** - Content is published & made live on the platform

The below sections explain the Resource Life Cycle for Content and Collections on NULP.

### Create Collections:

The platform offers the feature of Collection. Collection is nothing but an umbrella which houses 1 or multiple resources. The end user can directly access the Collection & view all the individual materials within it. Before a Collection can be created, the individual resources within that Collection must be made Live on the system.

### Creating a Module:

A Course Creator can create courses by compiling content to it. They can create each unit of course content and then compile a course using the newly created content and the already existing content as well. Components can be in any of the following formats:

- **Text:**  
The platform supports the pdf file for a text driven document. If we want to upload a PowerPoint presentation or a word document, we need to convert this into a pdf and then upload in the system. **The size of a pdf should not exceed 25 mb.**

- **Video**  
The platform supports the contents in the form video as well. It supports below video formats. **The size of a video file should not exceed 25 mb.**
  - **MP4:** A file with the MP4 file extension is an abbreviation for an MPEG-4 Video file, which is a compressed file format that can contain not only video but also audio and subtitles. MP4 files are usually seen when we download a video from the internet.
  - **WEBM:** A WEBM file is a compressed video saved in the WebM format, an open, high-quality video standard. WEBM files are commonly used for delivering online videos using the HTML5 <video> tag. A WebM file should have index.html as an entry point in order to be supported by the platform.
  - **YouTube links:** Platform has the capability to embed YouTube links. The platform does not fetch any metadata from YouTube. Users need to enter the metadata for the YouTube content.
- **HTML**  
HTML stands for Hyper Text Markup Language. We can upload html content on the platform as well. An html content generally includes the static pages which are linked together by some contexts. **The size of an html file should not exceed 50 mb.**
- **Additional**
  - ECML - ekstep content markup language. **The size of an ecml file should not exceed 50 mb.**
  - H5P - H5P is an abbreviation for HTML5 Package and aims to make it easy for everyone to create, interactive HTML5 content. Interactive videos, interactive presentations, quizzes, interactive timelines and more can be created using H5P. **The size of a H5p content should not exceed 50 mb.**

## Content Metadata

In NULP platform, Content metadata consists of the following fields:

- **Content Title**  
Content title signifies the name of the content. It is very important to give significant titles of the content so that users get the sense of the content.
- **Content Description**  
A short description of the content is always helpful to users to understand what this content is about and to help them to make a decision on content exploration.
- **Content Image**  
An Image against a content also describes the content. Image can be about the content or the identity of the content provider etc. A content image can be of .png or .jpeg type. It should not exceed more than 1 mb.
- **Content Keyword**  
A keyword helps to describe the content. You can add multiple keywords against a content. Sometimes users do not know what the exact content title is, so they search with the keyword what they are looking for. It is a very effective feature and must be utilised for effective content management.

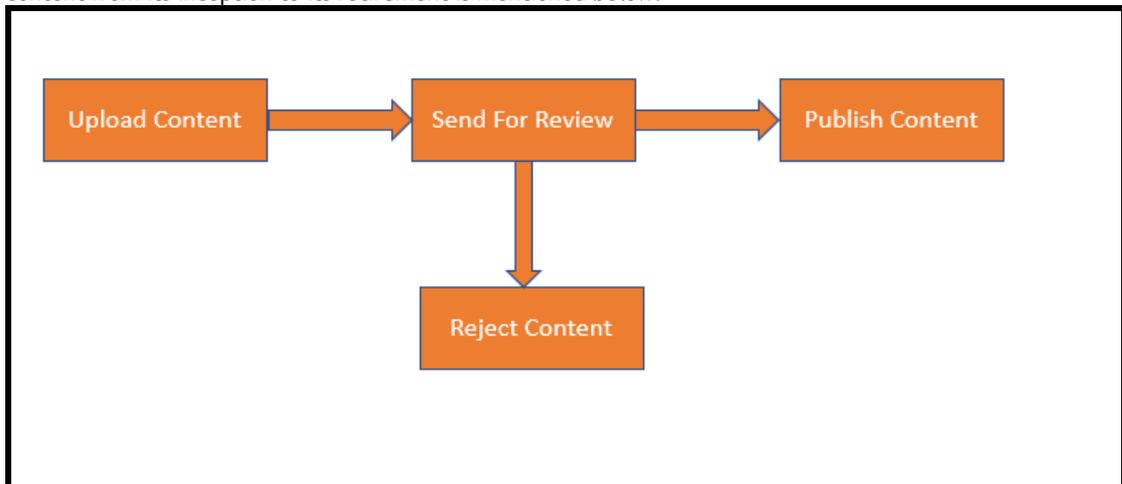
## Mandatory Fields

Although most of the fields while creating content are optional, we should provide data for each field to make it more effective. Below table specifies the Mandatory and optional fields for a content. The mandatory fields are the content title and the taxonomy fields.

Mandatory	Optional
Title	Description
Category	Keywords
Sub-Category	Content image
Topic	
Language	

## Content Lifecycle

In NULP platform, a content is available for the users once it is published only. The journey of content from its inception to its retirement is mentioned below.



## Model Course Development Guidelines

While NULP is designed on an open architecture promoting interoperability and flexibility of setting learning standards for each tenant on the platform, industry standards used worldwide for developing model courses are recommended to enhance learning outputs for the learner. Curated below are a set of best practices applicable on the platform, that would aid City leadership and partnering organisations to further their learning initiatives through the platform.

### Do's and Don'ts

While contributing to the platform, both creator as well as reviewer should keep in mind the below points so that the best quality of document is served to users.

Do's	Don'ts
Content metadata should be well defined.	Do not violate the copyright policy of any document.
Associate correct taxonomy with the content.	Do not upload content that does not meet the consent of the programs onboarded by NIUA
Content reviewers should check the entire content best on the consents defined and approve or reject the content based on that.	Content image should be within the permissible size as defined in the platform.
On rejecting the content, the reason for rejection should be well defined so that the creator of the content can work on that.	The size of the contents should be within the permissible size as defined in the platform.

## Best Practices

In order to contribute the effective contents to the platform, we should follow the below best practices.

- **Content Development**
  - The content should not be very big. Users generally starts losing focus when the read time of content is more than 10 minutes.
  - Break the contents in multiple topics if it has read time more than 10 minutes.
  - There is a common taxonomy across ULB's and hence the taxonomy definition should be appropriate across ULB's.
  - The metadata of the document should be well defined to make the content more effective and connectable to the audience
  - The description of the content should clearly define about the content
  - Put a proper content image which defines the content in order to easily connect with the audience
  - Formatting of the document/text should be paid extra attention to during creation as they affect user readability and participation
  
- **Content/Course Creation**
  - **In-built Editor on NULP**
    - **Tutorial videos on NULP** can be leveraged by content creators/contributors to create courses/content to enhance learner participation.
    - **Question sets** with recaps of concepts/courses must be embedded within course content to support retention and user engagement
      - **Yes/No question sets** are beneficial for gauging quick concepts and elicit higher participation from the learners
      - **MCQ question sets** are beneficial in gauging retention of foundational components of the course and add value to assessment scores.
  - **Video Content**
    - **PPT with voice-overs** - To match the current feasibility of the platform, course presentations in PPT and PPTX format can leverage features enabling a voiceover walk through of the course/content in a video format can be leveraged to enable interactive learning.
    - **Trainer videos** with in-person instructional delivery of the andragogy has known to result in heightened user engagement and course retention due to the traditional nature of learning.
    - **Webinars/discussion group sessions** can be embedded within content/course material to ensure newer methods of user engagement and participation.
    - **Sharing of live site/s related videos** can be beneficial for ULB personnel to learn and real-life instances to their requirements for learning. This can be particularly beneficial in a situation with mobility constraints imposed by lockdowns etc.
  - **Textual Content**
    - **For SOPs and processes** the use of graphic/diagrammatic tools should be leveraged for ensuring learner usage and adaptation.
    - **PDFs should be broken down** into relevant sections ensuring sizes of each section is designed for user-friendly consumption.
    - **Digital/automated tools** should be explored to convert analog learning material to digital.

These guidelines will undergo iteration on a regular basis contingent to the enhancements made to the digital infrastructure, enabling more tools for building learning models. Program maturity and priorities outlined by City Leadership/owners of NULP at the time of institution will be pivotal in developing partnerships and content relevant for the ecosystem of learners under NULP. A summary of other best practices<sup>1</sup> followed by global platforms for course and curriculum development (enclosed below) can be referred to by cities as well.

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<sup>1</sup> Spyropoulou, Natalia & Pierrakeas, Christos & Kameas, Achilles. (2014). Creating MOOC Guidelines based on best practices

## Course Curriculum and Configuration best practices

Category	Examples	Platform/s
<b>Structure</b>	The course should be divided into sections that include activities aimed at completing within one week each	FutureLearn, Iversity, Edx, Coursera
	For each section should be given a descriptive name in order learners are informed on what they are going to learn during the corresponding week.	FutureLearn
	Each section should contain at least one educational video.	Udacity
	Besides video tutorials, a section should contain hypertext, video comprehension questions, exercises / tasks, discussion topic(s) and additional education material.	Udemy
	At the beginning of each section, learners should know what activities will be carried, when and why.	Iversity
	Students should be able to navigate in different sections (e.g. weeks) of the course, giving the opportunity to find out what they will learn next.	Coursera
<b>Duration</b>	Generally, the courses are divided into 6-14 sections, which have a maturity of one week each. The duration of the courses varies from 6-14 weeks.	FutureLearn, Iversity, Coursera, Edx
<b>Enrolment dates and deadlines</b>	Students should be informed about the enrolment dates and deadlines in the course description page. After the end of the course registered students should be able to enter the course, but should not be an option for new enrolments.	FutureLearn, Iversity, Coursera, edX
<b>Engagement Time</b>	Recommended time engagement of learners could be between 3-4 hours to 10 hours per week. The information should be occurring in the course description page.	Iversity
<b>Certification</b>	Learners after a successful completion of the course obtain a free certificate of attendance, which certifies that the participant has successfully completed a course, without confirmation of learner's identity. A Certificate with a verified identity could be provided, by paying a certain fee.	edX
<b>Communication and Collaboration</b>	Academic staff should encourage learners to support a network of cooperation, with the active participation of all and to exploit the power of community for continuous online support, where everyone has the opportunity to become an instructor and learner.	edX, Coursera, Udacity, FutureLearn
<b>Assessment</b>	Generally, during a course, the educators undergo a series of evaluations. This can be exercises or a task (which usually comes at the end of the course). The exercises can be open response, multiple choices, gap-filling and matching	Coursera, Udacity, FutureLearn, Iversity, edX, Udacity
<b>Download ability</b>	It is recommended to have the educational material downloadable	Udemy
<b>Accessibility</b>	The educational material proposed to be created is compatible with the Web Content Accessibility Guidelines (WCAG) 2.0, so as to maximise learner participation, including learners with disabilities.	FutureLearn

# Licenses and IPR

Content is uploaded on NULP under Creative Commons Attribution 4.0 International license (CC BY 4.0)



Public copyright licenses that enable the free distribution of an otherwise copyrighted "work". The Creative Commons Attribution license allows re-distribution and re-use of a licensed work on the condition that the creator is appropriately credited.

**Easy Share:** copy and redistribute the material in any medium or format

**Easy Adapt:** remix, transform, and build upon the material for any purpose, even commercially

**Required Attribution:** You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use

**No additional restrictions:** You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits

## Conclusion

The enclosed strategy is designed to outline a starting point for Central and City level agencies to institute and initiate a mechanism of learning through NULP. As the program scales up through adoption by ULBs in India, it is envisioned that the 'prosumer' approach will be at the forefront for driving content creation and consumption on the platform, resulting in fundamental changes to the proposed strategy.

City Leaderships and ecosystem actors are urged to leverage the interoperability and multi-tenant nature of NULP to ensure a steady flow of learning repositories are made available through their ULB on NULP, best customised to their requirements.

More on partnership development and onboarding strategies can be explored through other knowledge products made available in the National Urban Learning Platform (NULP) - An Ecosystem Approach to Capacity Building series. Content is uploaded on NULP under Creative Commons Attribution 4.0 International license (CC BY 4.0)

# Annexures

## 1. Partner Onboarding Form

1	Partner basic information					
1.1	Organisation Name					
1.2	Organisation Type					
1.3	Organisation summary (150-200 words)					
1.4	Contact Person for NULP engagement Email id- Phone No -					
2	Type & Quantity of Content Resources					
	Resource Type	No. of Content	SOP/Manual	Research Paper	Best Practices	Course Modules
	PDF					
	Video					
	HTML					
	Other					
	*Please ensure content size should be less than 50MB					
3	Content Qualitative factors (Zero tolerance criteria)					
3.1	Factual errors					
3.2	Discriminating /defaming statements based on gender, religion, community, etc. <i>(E.g.: any kind of visuals or words contemptuous of racial, religious or other groups. Visuals or words which promote superstition, communal, obscurantist, anti-scientific attitude. Visuals or words involving defamation of an individual or a body of individuals. Abuse or ridicule of people with disabilities (physical or mental).</i>					
3.3	Copyright / IPR violations					
3.4	Visual clarity Checks <ul style="list-style-type: none"> <li>Text size and font should be readable on screen no overlapping of text and image</li> <li>Text is not getting covered by an image/ navigation or submit buttons</li> <li>Not too much text in one screen (Ideally there should not be more than 3-4 sentences with ten words per page)</li> <li>No pixelated images</li> <li>High resolution picture</li> </ul>					
3.5	No technical error/glitch					
4	Details of licensing					
4.1	Creative Commons (CC)					
4.2	CC-BY-NC					
4.3	CC-BY-SA					
4.4	CC-BY-ND					
5.	Signature and Stamp of the authority		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 200px; height: 60px;"></div> <div style="border: 1px solid black; width: 200px; height: 60px;"></div> </div>			
5.1	Organisation Logo					

## 2. Self-declaration Certificate for partners for hosting of content on NULP

Self-Declaration and Certification for hosting content on NULP

Issued by Content Contributors for contributing content on NULP - The Ministry of Housing and Urban Affairs, Government of India

### 1. Definitions

Content Contributor - Any individual, organisation or institution who is contributing research material, training modules and learning content to the NULP platform.

- a) NULP- National Urban Learning Platform
- b) NIUA- National Institute of Urban Affairs
- c) MoHUA - The Ministry of Housing and Urban Affairs, Government of India.

### 2. Content Contributor details and declarations

- a) This declaration, certification and agreement is issued by \_\_\_\_\_ (name, address, email ID, ph. number and description (hereinafter referred to as “Content Contributor”). The Content Contributor wishes to upload and make available their learning content to the NULP platform and its users. The Content Contributor shall abide by all the rules, principles and terms of the NULP platform.

### 3. Content Contributor Self-Declaration and Certification

- a) The Content Contributor hereby declares and certifies:

The Content Contributor wishes to contribute content to the NULP platform (hereinafter “Contributed Content”).

- (i) The Content Contributor has thoroughly scrutinised the content they wish to contribute to the NULP platform.
- (ii) The Contributed Content is technologically compatible to be uploaded on NULP platform.
- (iii) The Contributed Content conforms in its entirety to the curation and taxonomy guidelines/norms and other parameters provided by NIUA.
- (iv) The Contributed Content does not violate rights of any third parties including Copyright. In case of any violation, the entire responsibility whatsoever will lie with the Content Contributor.
- (v) The Content Contributor is providing content to the NULP platform and its users pro-bono and as per the creative commons license framework recognised by the NULP platform.
- (vi) If the Content Contributor makes any modifications, deletions, additions or any other form of amendments to the Contributed Content after it has been hosted on NULP, for whatever reason, the Content Contributor shall issue a fresh self-declaration and certification.
- (vii) The Content Contributor takes full responsibility for any errors or discrepancies or mistakes in the Contributed Content and attributions issued by the Content Contributor and undertakes to rectify the same upon becoming aware of such errors or discrepancies or mistakes or upon being notified of the same.

### 4. Further Agreements - The Content Contributor further understands and agrees that:

- a. The Content Contributor authorises the NULP central team/NIUA/MoHUA/City (of State wherever relevant)/ Project Management Unit to publish the Contributed Content on NULP and in the public domain to make available to users of NULP without any restrictions.
- b. The Content Contributor nominates the following person(s) as authorised persons responsible for addressing and taking care of public feedback, suggestions with regard to any errors or discrepancies or mistakes in the Contributed Content (Please nominate 2 people including the head of the organisation. Individuals can nominate themselves)

Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Email id \_\_\_\_\_  
Ph. no \_\_\_\_\_  
Address \_\_\_\_\_

- c. In the event of a breach of any of the statements in this certificate, the Content Contributor undertakes to address any issues immediately and recognises that the CPMU shall take appropriate remedies to address the breach including removal of Contributed Content from the NULP platform as per guidelines to this effect.
- d. The NIUA as the sponsor of the NULP platform shall host the NULP platform in manner deemed appropriate and shall take such action in the interest of the NULP platform and its users including removal of Contributed Content from the NULP platform for violation of content guidelines of the platform as they deem necessary.

Name of Authorised Signatory \_\_\_\_\_  
Designation \_\_\_\_\_  
Signature \_\_\_\_\_  
Stamp \_\_\_\_\_  
Date \_\_\_\_\_  
Place \_\_\_\_\_



## About NIUA

Established in 1976, National Institute of Urban Affairs (NIUA) was tasked to bridge the gap between research and practice on issues related to urbanisation and suggest ways and mechanisms to address urban challenges in the country. For more than 40 years now, NIUA has been the vanguard for contributing to, and at times, building the urban narrative for a fast-evolving Urban India. The Institution has been actively working on bringing forth key areas of concern for urban India in order to build the urban discourse at various urban scales.

It has utilised its competencies in research, knowledge management, policy advocacy and capacity building to address urban challenges and continuously striving to develop sustainable, inclusive, and productive urban ecosystems in the country. It has emerged as a thought leader and knowledge hub for urban development in India and is sought out by both Indian and International organisations for collaborations and partnerships in India's urban transforming journey. NIUA is committed towards aligning its efforts towards achieving Sustainable Development Goals (SDGs) through all its initiatives and programs.



## About FCDO

The Foreign, Commonwealth & Development Office (FCDO) pursues the national interests of the UK and projects the UK as a force for good in the world. FCDO promotes the interests of British citizens, safeguards the UK's security, defends the UK's values, works to reduce poverty and tackle global challenges with international partners.







National Institute of Urban Affairs

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