How to
leverage & maximize current set
of learning assets

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What learning assets?

- NPTEL Lectures / Videos

- Virtual Labs

- And any other existing educational content

Leveraging & maximizing

- Great content... already in place
- Needs to reach more and more people
- Factors that could help to proliferate
  - Language translations
  - Cross integration of existing content (Reuse, allowing for novel combinations)

Language Example

- Our research has shown that Language of instruction does matter. That content can be in English, but instruction can be vernacular

- For example:
  - Don't literally translate programming languages or course content into Hindi, Telugu or some local language. Instead, just instruct or teach in local langauge but use the subject specific English (or technical) language.

Integration example

- There is considerable overlap in content between the scope of NPTEL lectures, Virtual Labs or some of the curriculum centric assets that MHRD is creating.

- We can create hooks / links that allow components of each to integrate with the other.

- Example:
  - A NPTEL lecture on search algorithm can be linked to a Virutal Lab on a related topic.
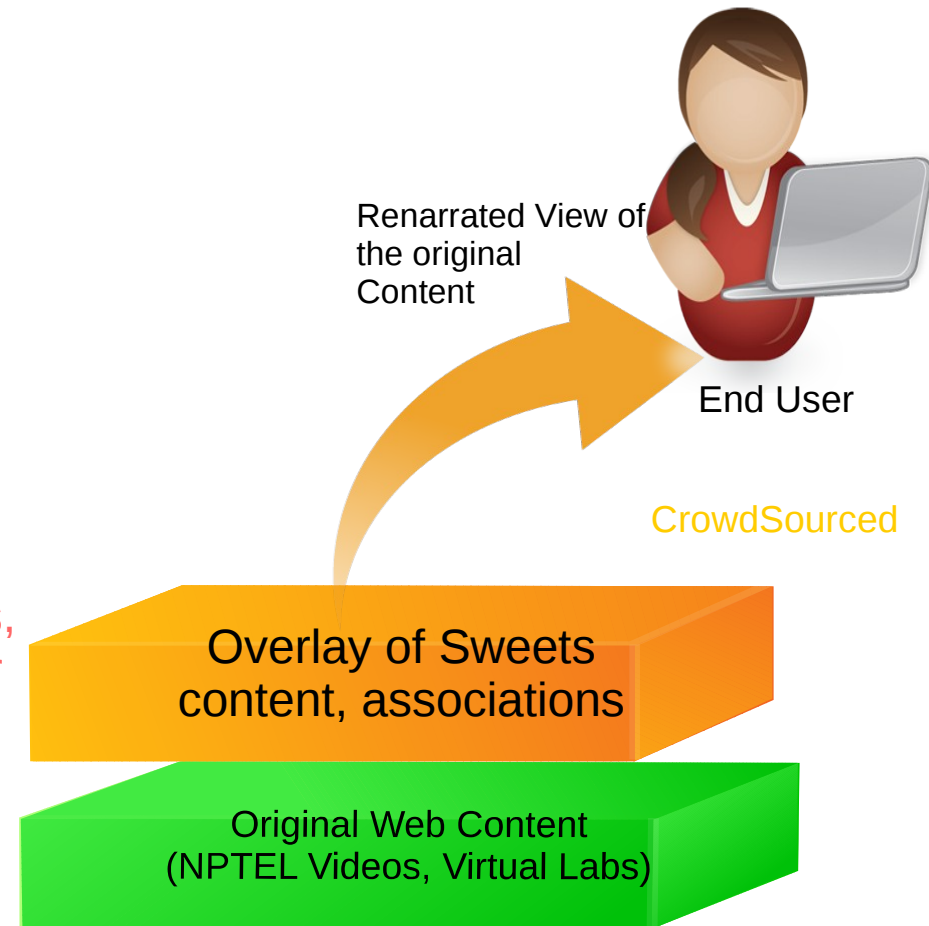
How to enable this?

- One most intuitive approach is to hard code the translation and also hard code the links for integration
  - That is, have human translators sit and hand change the material, hard code the links etc.
  - Issues with this:
    - Time consuming, frozen and not-editable, no novel interpretations, no multiple interpretations (to exist simultaneously) etc.
- Other options?

Our proposal

- We need to have a system
  - That allows us to scale
  - That is modifiable
  - That allows for democratization
  - That allows for multiplicity
  - That showcases Indian talent in proposing novelty in approach
- We propose a "SWeeT system"

- Original data should be undisturbed

- Additional annotation, modifications, translations can co-exist as an overlay

- Links between overlay and existing content can be handled by semantic tweets (SweeTs based technology)

Renarrated View of the original Content

End User

CrowdSourced

Curators, any user

Overlay of Sweets content, associations

Original Web Content (NPTEL Videos, Virtual Labs)

Our pitch

- We have a prototype to show
  - that crowdsourcing can work
  - That original content can be renarrated to a wider audience
  - That mark-ups and annotation can help glue new content to old (mashup)

- We want a chance to build this novel idea into a system.
- Our solution will not only provide a platform for translation but also integration of existing educational content. This is how we wish to maximize and leverage what we already have.