Faculty of Design

2020

Modelling an innovation ecosystem to build and nurture communities

Agrawal, Ananya

Modelling an innovation ecosystem to build and nurture communities

Ananya Agrawal, National Institute of Design, India

Encouraging a culture of innovation and entrepreneurship in a country with a huge population density like India can have a significant role to play in ensuring the rise of self-reliant communities, especially in a post COVID-19 future where reverse migration has become noteworthy. As per experts, by increasing the varied set of people per capita who can inspire and develop markets and try out new products and methodologies etc., India, can leverage its innovative diversity to its fullest potential. Despite India's popular 'jugaad' culture, the innovation wave is yet to penetrate in smaller towns and villages. While access to spaces of innovation irrespective of age or economic differences serves as an entry point, this can only be sustained if communities are nurtured to build upon the local ecosystem with an increased degree of interactivity and ownership. The program design of Atal Community Innovation Center (ACIC), an initiative by Atal Innovation Mission, NITI Aayog, is therefore modeled after a careful study of the bottlenecks in the innovation cycle suggesting systemic interventions to counter them. This paper focuses on building the willingness and capacity of people to access the innovation infrastructure. The suggested methods have been supported by insights from theory of creativity as well as evidences from action research done at Jhamtse Gatsal Children's Community, Arunachal Pradesh as a Lakpar Fellow.

The two popular business models of makerspaces, incubation centers and innovation labs come with the following challenges:

- **Membership Fee** from day 1 as per usage of infrastructure and mentorship facility: Even if the fee is subsidized, this approach comes with the challenge of being less inclusive for people from lower economic backgrounds
- **Initial funding with focus on % share in Return on Investment** from start-ups for a fixed period after they break even: Here again, the tendency is to minimize the risk by investing in potential ideas or prototypes by individuals/already established companies as entry points. While this is a more inclusive approach than the former, the gap lies in the moment the space decides to invest in 'ideas' instead of 'people'.

As per field insights, the idea of innovation for most Indian communities is distant from their everyday life, mostly reserved for the privileged few. To counter this thought, National Innovation Foundation started with 'shodhyatra' with a motto to reach the grassroot innovators in their native places, instead of innovators having to find them. This helped to redefine the idea of innovation for the Indian audience such that what emerged from either necessity or traditional knowledge of one place, became acknowledged as innovation for the other. Another challenge faced by people on their road to innovation was seen to be their inability to figure out a starting point. According to theories of creativity in psychology, the missing link here is the 'Creative Induction' phase or the 'Grooming' phase which is a preparatory phase focused towards exposure and regenerative creativity.

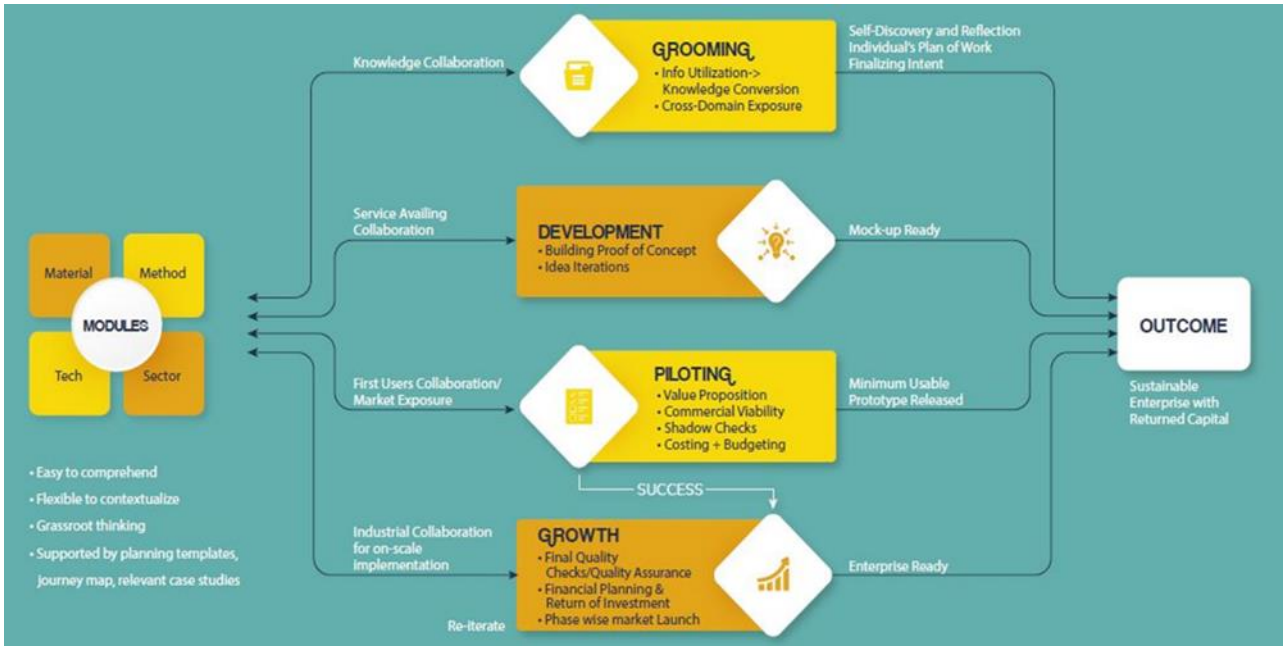

Fig 1: Stages of the innovation journey at ACIC

Fig 1 shows the stages of the innovation journey at ACIC where the Grooming stage focuses on knowledge collaboration and results in finalizing of individual's intent which precedes ideation and development. This phase is designed to be 4-week long which tests an individual's: **Reflexivity, Adaptability, Communication, Perseverance and Collaboration** based on the insights from learning methods:

Fig 2: Photographs from Action Research at Jhamtse Gatsal Children's Community

1. **Constructivism**- While Jean Piaget's theory of constructivism recognizes the learners' understanding and knowledge based on their own experiences, it also recognizes that every learner brings in a local knowledge with them which can act as an entry point into their creative development. The first set of activities should therefore be focused on enabling them to look at their current knowledge and skills in a reflexive manner, to be able to visualize the possibilities

they had overlooked before. This also helps to build self-confidence by both uplifting the one's self worth and the value they associate with their work.

2. **Exposure**- Once the first set of activities have been able to build a creative confidence the individual can be introduced to a range of resources through exercises focused on extensive field work, tinkering and connection building. This can improve the individual's ability to *adapt* an existing solution to multiple use cases or come up with entirely new solutions focused on contextual needs.

3. **Choices** –Having had limited space for self-discovery in space of learning or work, a lot of people are motivated to work but not sure what they wish to work towards. While few will be able to pick a sector/material/technology based on their experience so far, few other might be still confused and might need guided methods to identify patterns in their previous choices. An observable aspect of these *communications* is the frequency of a particular material/tech chosen for tinkering over another or pieces of visual/textual/audio information picked by the person as opposed to others.

4. **Group Work**- Working together and learning from each other is another essential skill on the road to innovation as nothing can be accomplished alone. People can be grouped based on contrasting choices at this stage or given conflicting scenarios or theatre exercises to work on to see how well they *collaborate*. There are different kind of players that make a team successful and activities at this stage can focus on bringing out these attributes in people to the forefront.

5. **Project-based Learning**- Apart from a range of advantages already known about project-based learning, it is also a good test of *perseverance*. After the initial excitement wears off many learners tend to give up. The last two weeks of this four-week grooming phase therefore need to be focused on individuals working on a mini project, after which their performance can be evaluated and potential innovators selected.

A compilation of different social groups and how the Grooming Phase is planned for and received by them can be helpful in developing this direction further.