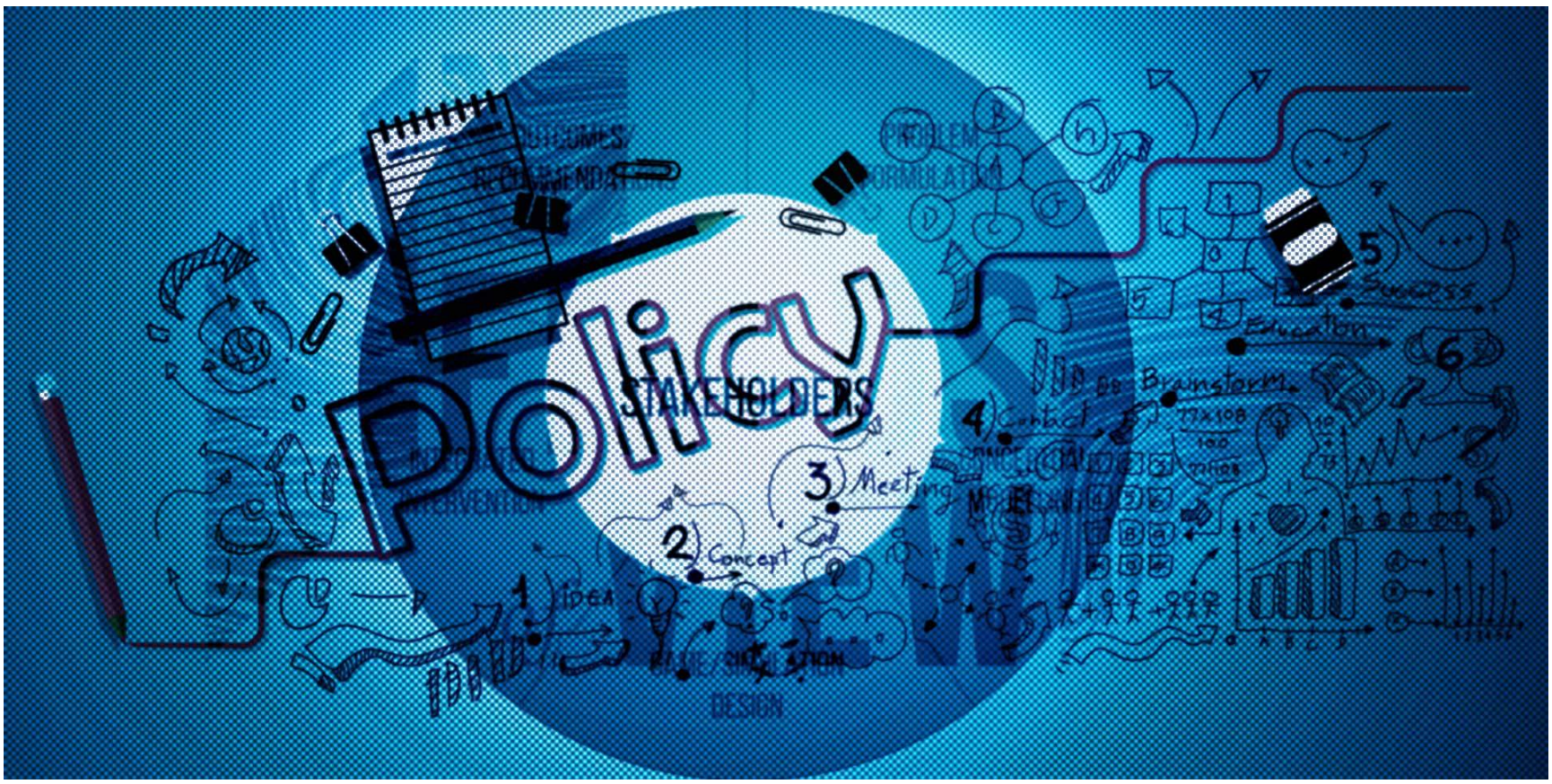
Culture (/Culture)

These Bengaluru game designers have gamified policymaking. Let's play!

Shrabonti Bagchi (https://factordaily.com/author/shrabonti/) | May 17, 2017



The people at Fields of View love their games. As soon as you walk into the ground floor of their office, an independent two-storey house in Bengaluru's Jayanagar area converted into a workspace, you see a stack of board games prominently displayed in a glass-fronted cabinet. There's Settlers of Catan, Arkham Horror, Dominion, Power Grid, Strategy, and even Anti-Monopoly, the interesting subversion of the insanely popular Monopoly, created to debunk the idea that monopolies are desirable.

The office houses the nine-member team of Fields of View (http://fieldsofview.in/): people from backgrounds like computing, economics, gender, public policy, design, media and communications, illustration, and animation. It's also home to two adorable cats, Subbu and Molagai, who weave in and out of the room where I'm talking to Sruthi Krishnan and Bharath M Palavalli of Fields of View.

We begin by talking about classic board games (also referred to as tabletop games), and one of my pet peeves: how some people are bad at these while being generally competent in other areas of life. Krishnan laughs. "Playing board games gives you a lot of insight into personality. People surprise you all the time. People who seem meek and reserved in real life are sometimes really aggressive and competitive while playing board games. It's fun to watch," she says.

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The folks at Fields of View actively play these games and even conduct serious game nights, not just because they love board games (they do) but because they understand that games can be used to convey deeper messages. For instance, to craft policy, understand it, gauge its impact, and ultimately bring about social change. The not-for-profit based in Bengaluru, founded in 2012, started crafting games and simulations that would help policymakers, economic stakeholders, governments and citizens understand the nuances of policymaking and how it affects everyday lives.

Some of their current projects include building a game for the UN for students of economics and sustainability studies to understand the Inclusive Wealth Indicator (IWI), an indicator proposed as a complement to the GDP (Gross Domestic Product) and HDI (Human Development Index); ₹ubbish! a game on waste management in Bengaluru; and SimCity, a game that lets participants build simulations to understand and plan for cities in the Indian context. Their past projects have included City Game, a multi-player game to understand urban design; the Indian Energy Game, designed to provide players with insights into the energy ecosystem; and Thrift, a tabletop game to understand the complexities of the Indian Smart Cities Challenge.

A session of the City Game at NextBangalore, an event held to conceive the future of Bengaluru. Image: Fields of View

The nine-member team of Fields of View who come from backgrounds like computing, economics, gender, public policy, design, media and communications, illustration, and animation. Image: Rajesh Subramaniam/FactorDaily

“Citizens and civil society are often left out of the policymaking process. Our aim is to create methods for policymakers to engage and interact with them in a meaningful way. Not like news channel debates about policy, which are shouting matches and lead to more finger-pointing (than anything constructive),” says Palavalli, who is one of the founders of the organisation along with Harsha K Both have studied at IIIT-Bangalore, and were mentored by the likes of Dr Eswaran Subrahmanian, a research professor at the Department of Engineering and Public Policy at Carnegie Mellon University, and Robin King, a director at the WRI Ross Center for Sustainable Cities, a global non-profit working towards urban sustainability in Brazil, China, India, Mexico, Turkey and the United States.

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But how exactly does gamification and simulation help in solving urban problems? Let’s take the example of designing new transport systems for cities. Most existing models, usually created in the West, used by the government to draft new rules and methods to deal with a city’s transport needs, are based on largely homogenous traffic, dominated by four-wheelers. If you use such models to help solve transport issues in Indian cities, you’re bound to come up with flawed solutions because the Indian transport scenario is hardly homogenous: there are two-wheelers, three-wheelers, unmotorised vehicles, cycles, handpulled carts and even bullock carts to take into account. At the same time, experimenting with transport is costly and time-consuming, even if you do pilot projects first. This is where localised games and simulations come into play, because by using them, policymakers and other stakeholders can figure out the flaws in their ideas and iron out imbalances without risking capital and time in building pilots.

Let’s talk ₹ubbish

At the Fields of View house, we play ₹ubbish, a game designed to create awareness about the need for waste segregation, and to raise awareness about the challenges faced by owners of Dry Waste Collection Centres (DWCC) in Bengaluru. Most Indian cities have an informal network of waste segregators — people who manually separate recyclable waste from mixed waste and sell it for minor profit. Recently, the civic agencies in the city adopted a decentralised approach by setting up DWCCs in every ward and encouraging those involved in the informal segregation sector to become owners of DWCCs. The game, Krishnan and Palavalli explain to

me, is set up to show players the problems faced by these centres and how citizens and civil society can make their jobs easier while contributing to the environment and ensuring minimal waste ends up in landfills.

Playing ₹ubbish with various stakeholders in waste management in Bengaluru. Image: Fields of View

The game is played by four-six members, all sitting round a board that has a ward map of Bengaluru. The players start off with Rs 5,000, and are encouraged to buy as many DWCCs in different wards as possible. Once the players have selected and "bought" the wards, the gameplay begins. There are different counters for different types of waste, which are traded between the wards. Any waste not collected goes to the landfill. While individual players are motivated to maximise their profits by recycling as much dry waste as possible, the collective goal of the group is to make sure the landfill (represented by a bin, into which all the uncollected waste goes) does not fill up.

Games for change

In gaming circles around the world, the concept of "games for change" is pretty well-understood. In fact, there is even an annual gaming festival, held in New York, that goes exactly by that name. Although its focus is primarily on digital games (while Fields of View does both digital as well as tabletop or classical boardgames) the underlying principles remain the same. Make it interactive, make it meaningful, make it competitive, and most importantly, make it fun. As Mary Flanagan, founder of the Dartmouth College-based Tiltfactor, a game research centre, puts it (http://www.gamesforchange.org/): "Create a player experience that's fun first. If you remove the fun, (players) will feel like they're being preached to and it's not a game any more, there's no agency."

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Palavalli agrees that there has to be “validity and believability” built into the game, and being preachy or too obvious about the goals of the game are not effective. However, the FoV folks don’t quite see eye-to-eye with the Games for Change community on everything. “The problem with some games that encourage you to collect points for certain good behaviours in the game is that these often don’t translate into real-life behaviours, when there is no incentive for you to do that,” says Palavalli.

Pourakarmikas, waste collectors attached to the Bengaluru civic agency BBMP, take a turn at ₹ubbish. Image: Fields of View

Interestingly, none of the senior members of the Fields of View team have specialised training in designing or constructing games. Krishnan started as an engineer, worked with an IT major, moved into journalism before joining Fields of View. “My interest has been the intersection of technology and culture, especially in the Indian context,” she says. This led her to co-author a book on design with Professor Eswaran Subrahmanian and Professor Yoram Reich from Tel Aviv University. “Working on the book (it is due to be published soon) deepened my interest in design research. It is this continuing interest and research at the intersection of technology and culture that drew me to FoV,” says Krishnan.

Palavalli has a Master's in Information Technology from IIIT-Bangalore, and had an interest in using computing to model human behaviour. Having played games competitively, it led him to ask if we can think about using such mechanisms to understand societal problems. "I was able to experiment with a lot of these ideas in my first job where I was creating simulations for infrastructure policies," says Palavalli.

Game theory

Bengaluru in the 2000s had a thriving computer gaming culture. Cybercafes, gaming parlours, colleges, and groups in Bangalore organised tournaments for clans (teams), says Palavalli. Harsha and he were part of a clan, which predominantly played real-time strategy and first-person shooter games. During their masters' programme at IIIT-B, they studied game theory and simulation systems. Combining their interest and understanding of how players interact with games with their learning of complex adaptive systems, they then began designing and creating games and simulations that could help with infrastructure policy problems.

Over the last 10 years, based on theories from different disciplines and the specific needs of using games and simulations for policy design, Palavalli and Harsha have evolved a design methodology. Drawing from this, Palavalli teaches game design courses for masters' students at NID, Bangalore, and previously at IIIT-B. He has also been conducting workshops on game design for various organisations whose interests vary between policy research, art, design, and theatre.

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In the past five years, the organisation has received project-based grants ranging from six months to four years from various organisations such as Department of Science and Technology, Government of India; Department of Atomic Energy, Government of India; UNESCO-MGIEP, UNDP Sri Lanka, Dutch Science Foundation (NWO), Netherlands e-Sciences Centre, IIIT-Bangalore. They have also worked with national and international organisations in the fields of urban planning and design such as TU-Delft, Medialab Amsterdam, KTH Stockholm, Sahjeevan, Gender at Work, TARU, and Directorate of Urban Land Transport, Government of Karnataka.

Indian Energy Game with IAS officers at Indian Institute of Management, Bangalore in February, 2013.
Image: Fields of View

“One of the challenges in India continues to be that of funding for non-profits and non-academic research,” says Krishnan. At FoV, a principal challenge is that of getting funding from Indian individuals or philanthropists, she says, given that they are working in the area of policy research using technology, social sciences, and design. “People have been confused about whether they want to put us into a category of a charitable organisation, start-up, or social enterprise.” In India we still have a long way to go to create funding mechanisms for a healthy, vibrant eco-system to support interdisciplinary non-profit research, believes the team at FoV.

Technology, of course, plays a big role in the work at Fields of View. “One of our primary methods of investigating policy problems is through the use of computer-based simulations. These simulation systems are a result of developments in areas that span across AI & Complex Systems, distributed and high-performance computing, the creation of portable and high-fidelity sensing mechanisms, VR, and AR technologies,” explains Krishnan.

> “One of the consistent themes for us in the past five years has been that technologies often help us understand and analyse the problem, and more often than not the path forward lies in addressing other parts of the system” — Sruthi Krishnan, FOV

Each of these provides FoV with an important element for understanding the implications of policies. For example, high-performance systems and distributed computing are necessary for running simulations over several years to understand impact of policy; AR and VR provide an immersive experience for different stakeholders to explore policy outcomes to choose their preferred scenarios; advances and theories in complex systems provide the base for creating models to test different policy strategies.

However, technology is merely a tool and cannot solve complex social problems by itself without deep and meaningful social transformations, believes FoV. “Given that many of us in India are technophiles at heart, we tend to get excited about using technologies to ‘solve’ societal problems. However, one of the consistent themes for us in the past five years has been that technologies often help us understand and analyse the problem, and more often than not the path forward lies in addressing other parts of the system,” says Krishnan.

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