



COVID Study Circle: An Experiment in Forming a Digital Collective During a Pandemic

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In this article, we reflect on a multi-institutional diverse **digital collective**, and its contribution to sifting fact from fake during the early part of the COVID-19 pandemic in India (March–June 2020).

In March 2020, many parts of India were just beginning to see cases of COVID-19¹. We were hearing from our colleagues in Italy and the UK about the scale of the crisis. Data were sparse, hard to translate to our context and general understanding about the virus and the disease was just emerging. The WHO team had just released its report from China and the prime minister cancelled his Holi celebrations^{2,3}. Data were being generated and transmitted rapidly (via Twitter and **preprint servers** such as Medrxiv and Biorxiv—bypassing the traditional publication lag); however, many areas were data-poor. This was also countered by a rapid spread of misinformation^{4,5}. We needed to organize data into information⁶, explore its reliability/uncertainty, and start to both construct the big picture and identify the missing details (Fig. 1).

This unprecedented situation threw up some immediate challenges:

1. Social media was polarized and rife with misinformation^{4,7}. Even with grounding in scientific thinking and critical analysis, we were struggling to separate facts from fiction.
2. We were unprepared for the spotlight that was suddenly put on scientists. There was an urgent need to be better informed to communicate effectively^{8,9}.
3. We needed to identify gaps in data and figure out how best to contribute.

One way to address these challenges was to come together as a group or collective with diverse expertise and have open discussions. Indeed, in India, multiple such groups emerged. These include “Indian Scientists’ Response to COVID-19 (ISRC) started as a group of Indian

scientists who came together voluntarily in response to the COVID-19 pandemic”¹⁰ and COVID19India.org—“A volunteer-driven crowd-sourced effort to track the coronavirus in India”¹¹. The former has made important contributions to modelling of COVID-19 in India and the latter group continues to aggregate and provide up-to-date information on positive cases across India. These collectives are unique/novel in that:

1. They have institutional links, but no institutional anchoring.
2. They came together particularly to address the challenges of the pandemic.

The COVID Study Circle which we co-ordinated was an experiment in forming a digital collective during a pandemic. It was to be a safe space in which we could discuss what seemed odd or rumour or potentially fake. We would focus on the science, continuously updating what we knew. We sought to contextualise the information we were collating to South India, to our existing paradigms, and our institutions. We would be inclusive, by actively encouraging diversity in the circle. This reflects our belief that science is better when informed by different perspectives. We endeavoured to incorporate diversity within academia (discipline; level of experience) and the wider context (non-academics).

The digital component of our collective was essential to implement the above-mentioned framework.

Who joined the study circle?

CP, with colleagues, had informally proposed a framework for the ideal team to investigate an outbreak of a novel pathogen and inform a public health strategy to combat it (Fig. 2). We used this to guide our initial invitations to the study circle. BS brought experience of coordinating an international multidisciplinary research team (BIGlobal) that spans three countries (Malawi, India and Brazil).

Digital collective: A group of people united for a specific purpose, using digital methods of communication and working.

Preprint servers: Publicly accessible repositories of preprints: articles that are posted by authors prior to peer review. Preprints may differ significantly from versions published in peer-reviewed journals, or may never make it into a journal; preprint servers often carry disclaimers to bring this to readers’ attention.

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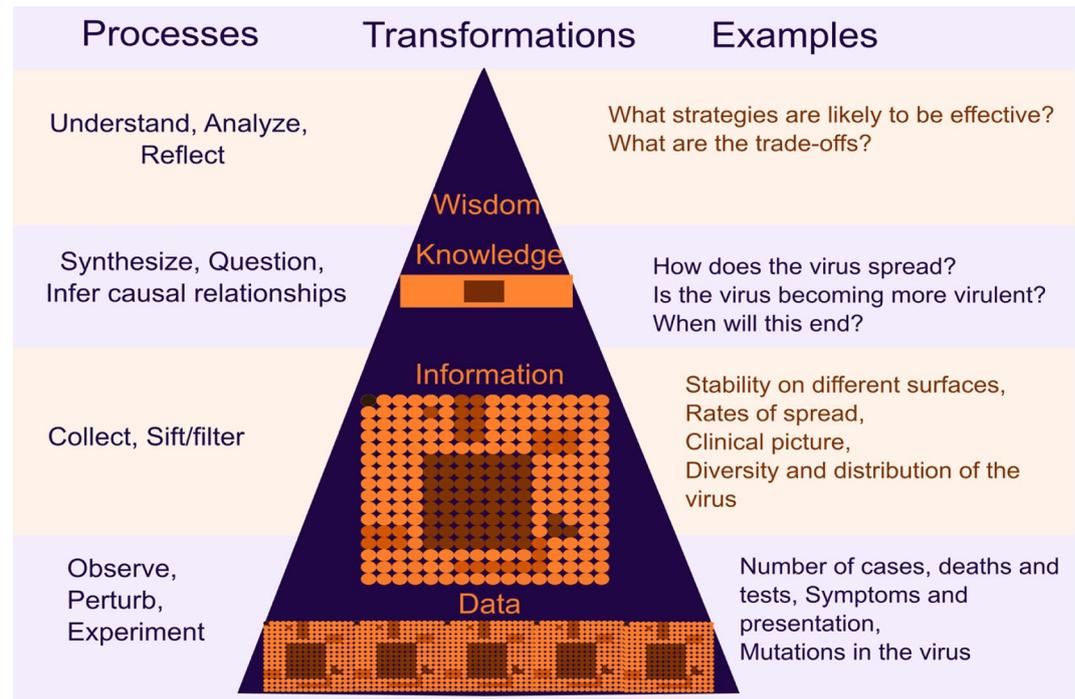


Figure 1: A model for the transformation of data to wisdom highlighting some of the processes and examples of each stage.

Early- and mid-career scientists: Usually refers to research scholars and fellows at Ph.D. and post-doctoral level, until achieving Professor or equivalent position.

We specifically invited **early- and mid-career scientists** (senior colleagues were requested to nominate younger colleagues as a requisite for participation), teachers and policy makers. We were open to anyone who was asking questions about COVID-19 and its impact, and was willing to put in some time every day, looking at it from a different lens. We relied more on word-of-mouth than active recruitment. In total, between 17 March and 23 June 2020, we grew to include 76 members.

The study circle had representation ranging from teaching and media to virology, public health, clinical medicine, policy, the biotech industry and basic biology. We had people join in from at least 16 different institutes/organizations (not accounting for those who joined in their individual capacity or were guest speakers). We did not have a clear opt-in or stay-in policy and we encouraged people to engage as little (just read the meeting notes or drop us an occasional email of interest) or as much (participate in every meeting, suggest topics or papers for discussion, identify guest speakers) as their situation allowed.

Having people from different backgrounds allowed us to think differently about what we were doing. For instance, feedback from a health economist increased our awareness of bias in

reports in media and journals, and cognizance of our own choice of reporting from certain sources. We also got non-medical/scientific perspectives from a teacher, and advice on what might be relevant to the public from journalists. The clinicians in the study circle could discuss the virus and immunity with virologists and immunologists; analogously, laboratory-based scientists developed a broader perspective on how their work could align with patient care priorities.

The following example illustrates the fact sifting nature of the study circle: In late March, it was suggested that there may be multiple strains of SARS-CoV-2, some of which were more “aggressive” than others. We discussed the data extensively in the study circle and came to the conclusion that there was no convincing evidence for this. Several of the study circle’s members got together to write an issue brief for a policy think-tank to offer our perspective on SARS-CoV-2 strains¹².

The study circle meetings

We met via Zoom, an online meeting platform, at 9 pm. After the first few weeks of meeting more often, we settled into a twice-weekly format. Most meetings were attended by 10–15 members (with a usual range of 8–20). We sent out reminders and a brief agenda before the meeting.

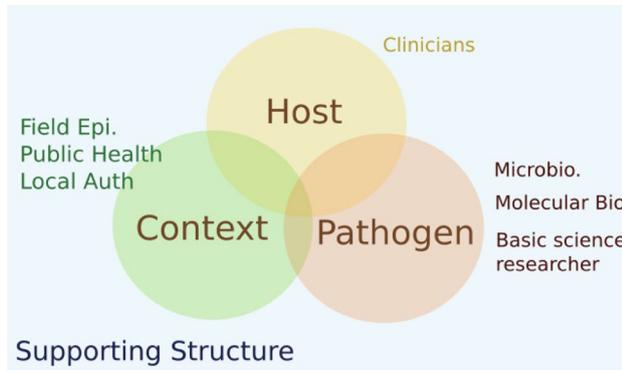


Figure 2: What should an outbreak response team for a novel pathogen look like?

Meetings were divided into the following sections:

1. Round-up—this evolved into a summary of national and international news on COVID-19, followed by some research highlights.
2. Clinical perspectives—led by actively practising clinicians, we had candid discussions on the state of health care for patients with suspected or confirmed COVID-19 in the country.
3. Paper discussion—we went through one or two studies in a detailed journal club style. These included both preprints and published articles.
4. General discussions—we discussed things that had come up during the meeting and between meetings.

After each meeting, we put together detailed notes which we shared in an editable format on Google Docs. We were also able to have several guest speakers (eight in total—spanning diagnostics, mathematical modelling, economics, public health response, and more) who spoke about their ongoing work on COVID-19. Sometimes these were even pre-publication, with a view to obtaining critical inputs from our group. The ability to meet without travel made it possible for us to engage with many people. This process saves time, scheduling conflicts could be minimized and lots of people who may not have been able to join an intense study group such as this, otherwise, now found it feasible. We maintained a separate Slack Workspace where the community would post news, media links, interesting papers or things they wanted to bring up in the meetings. Our Slack community (Corona Study Circle) has 51 (of 76) members. Slack facilitates management of

a large group: all discussions/notes/announcements can be stored in one place; there are channels for different conversations/topics; and it also enables variety of methods of sharing information.

We believe that the format of the study circle that we stumbled into was inclusive, allowed for holistic development of individuals and potential collaborations. These are the aspects of this digital collective that we feel were compelling (both salient and emergent):

1. Ostensible absence of hierarchy—during the meetings we did not have introductions. So while we had some accomplished senior experts among us, the rest of the group was not necessarily aware of their credentials. This anonymity may have prevented a natural settling into a hierarchy based on past achievements, which is all too common within scientific groups, and can stifle open discussion and learning. The digital meeting platform Zoom allows individuals to name themselves, and we rarely used video (i.e. only for special presentations) in an attempt to encourage anonymity. These aspects of the platform were key to creating a safe space which was at the same time flexible to allow relevant discussions.
2. Respect for viewpoints—as we shared a common goal of being better informed, we ensured that the group respected the viewpoints of all members.
3. We were able to focus on Indian Science and the local response.
4. Low energy barrier for inviting people—we got a lot of interesting people to talk and spend time engaging with us, even in the

absence of an institutional anchoring. People trusted us: guest speakers were mostly invited by active members; they came online as one-off guests, but most decided to stay connected to the study circle in some way.

5. This collective offered us a way to connect and stay human at a time when some of us were working long hours without much interaction or discussion with others—e.g. in laboratories, or from home.
6. Having multiple levels of engagement—active versus passive participation allowed for many more types of interactions and evolution of opportunities. The notes which were initially just for us became good resources to see how the situation evolved and how our knowledge grew through the pandemic.
7. No metrics—we did not measure much, and we did not set out with quantified material output targets.
8. We believe that the platforms we used (Slack, Zoom and Google Docs) were not only appropriate for the situation at hand, but also support continuation/evolution of these kinds of efforts.
9. We prioritized sustainability; this was facilitated by the organizers taking the responsibility to lead the discussions. We also changed the frequency of the meetings according to the needs and availability of the collective.

It is likely that at the very least, members of the study circle came away better informed. We also formed links and networks for future collaborations. This kind of collective fosters deep connections between researchers, medical practitioners and industry (built on trust and inter-dependence rather than immediate transactions), which in turn is likely to improve our overall understanding of local challenges in delivering quality health care.

Digital health involves a transition into new spaces and modes of communication between professionals; perhaps we should be going to the Internet for data and to diverse collectives such as these for our information. We believe that there is an important role for spaces like this in translating information to knowledge, and developing the wisdom of when and where to use this knowledge.

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