Micro-organizations and Samvedna:
A more effective and empathic knowledge worker

The global knowledge society, one where knowledge is the primary form of capital[1], has created a fantastical reality with the help of its ubiquitous tool- digitalization. Digitalization has provided technologies that very often involve 'going down the rabbit hole' of disbelief and amazement. In fact, digitalization is so quickly transforming the world around us that logging on to the internet everyday feels like a walk through 'wonderland'. It has created unprecedented levels of efficiency, productivity and collaboration, and made knowledge more important than ever in history. On the other hand, it has made topics like 'internet of things' and 'big data' dinner-table conversation. It is almost an understatement to say that we are in the midst of a technological revolution.

This essay will focus on Drucker's view that any major technological change creates the need for social innovation[2]. To address this need outwith and within the knowledge workers' community, respectively, we will look at the rise of micro-organisations and the growing importance of *samvedna*.

A Mad Tea-Party of Micro-Organisations

Drucker once said, "The most efficient way to produce anything is to bring together under one management as many as possible of the activities needed to turn out the product."[26] Micro-organizations are very respectfully proving him wrong. Companies around the world are being led by their management in a direction unseen in much of history, wherein function is becoming much more important than form. There is no impetus to grow as large as one can. Entrepreneurs are single-mindedly and purposefully creating organisations, small in size but efficient in function, sometimes even believing in 'solopreneurship' [3], while capitalizing on outsourcing and consultation services provided by other organisations. A micro-organisation is similar to small businesses in having fewer employees but remarkably larger market size. A perfect example is Nest Labs [4], a digital product development company working in the domain of 'Internet of Things', producing electronic, wifi-enabled thermostats and smoke alarms. Nest Labs had a total of 300 employees in various countries around the world and all of 8 executives when it was acquired by Google for $3.2bn [5,6]. This is not an uncommon phenomenon and much a direct result of digitalization. Digitalization has provided knowledge workers with three simple, often-underrated tools- better connectivity, faster communication, and collaborative platforms. Drucker talked about the soccer team layout the Japanese use for their product development teams [31]. Today, this soccer team could have players in different corners of the world, still moving together in one direction.

Micro-organisations have created a new environment for the knowledge worker to operate in and its effects are important for them and managers to understand. Some of these effects are:

1. **Proximity to results-**The knowledge worker comes very closely in contact with the results of their work. Drucker famously noted that the results of business lie outside it and that the knowledge worker has to understand the bigger picture of how his work affects the entire company [1]. Unlike big organisations, where knowledge workers often have the difficulty of seeing the bigger picture; in a micro-

organization, they can more closely observe the direct effects of their efforts in the market and society because they're handling greater responsibility and involved with a bigger part of the product's development. This also enables them to monitor and control their social and environmental impact, and due to the small size of micro-organisations, changes can be made more quickly and effectively.

2. **Independence and wider boundaries-** Knowledge workers have a world of opportunity from which to choose a specialization that suits their range of skills . Consider the no-more-surprising story of Brandon Pearce, a piano teacher, who created an online tool to help handle the business aspects of running a private music studio, including managing appointments and creating a website. It is also good to note that this app is generating almost $360,000 per year [3]. The knowledge worker is becoming independent of the organisation and a creator of micro-organisations. Drucker had pointed out that the knowledge worker can easily switch jobs[1] but now it's also easy for them to create untraditional jobs for themselves.

   "Intellectuals see the organisation as a tool; it enables them to practice their techné, their specialized knowledge", said Drucker [1]. But more often than not, the specialized interests of the knowledge worker get suppressed in a large organization. The ability to create micro-organisations has freed the knowledge worker to pursue their interests and because of the benefits of small size, a micro-organisation is relatively easy to form and also has much lower risk factor. Added to this is the power of digitalization to magnify impact. E.g. Wikipedia, a 'collaboratively edited, multilingual, free-access, free content Internet encyclopedia', was founded by Jimmy Wales who worked as a financial trader before. Wikipedia has over 500 million unique visitors a month and is, in essence, a free library for the world.[7]

   This has also led to 'intrapreneurship'- an institutional effort to channelise the entrepreneurial instincts of knowledge workers in big organisations, further empowering the micro-organisation movement. Companies like 3M and Google have strict policies that promote employees to work on personal projects [8,9], which works in the favour of the knowledge worker- they can satisfy their creative and entrepreneurial instincts, while being supported by the organisation's resources- and the organisation- it can benefit from novel ideas and products that emerge, e.g. Post-It from 3M [27].

3. **Design and innovation-** To compete with big organisations, efficiency and productivity are not enough. And micro-organisations are constantly winning on the basis of superior design and continuous innovation in products and services. Apple is probably the best example, having produced game-changing products across industries. The impetus on design and innovation has not only bettered the effects of digitalization but also the products that make these effects possible. Square Inc. came up with the technology to accept credit card payments using a mobile device but not only is this technology well engineered, it is also well designed to make the card reader and software interface very intuitive; it is becoming an increasingly valuable tool for small businesses. User experience, human-machine interface and human-centred design are topics that have taken over the development of new and redevelopment of old tools and technologies.

The most important development in this field is that of frugal design and innovation. Micro-organisations realise the need for simplicity of products and the financial perils of over-engineering or over-designing. Coming back to Square Reader, which gets its name by the shape of the device; the device doesn't have a single button or screen, it simply attaches to the mobile device through the audio jack and depends on a well designed mobile app for operation. [10]

Samvedna and the knowledge worker

With the advantages of micro-organisations and digitalization, knowledge workers are expected to come up with innovative solutions to old and new problems. Quite often, though, knowledge workers find their solutions to be inadequate, unsustainable or just unacceptable. The seemingly-Sisyphean responsibility to create productive, affordable and sustainable solutions requires a value-skill very rarely found in the knowledge workers' community- *samvedna*. It is a Sanskrit word, where *sam* means equal and *vedna* means pain. So *samvedna* (pronounces sum-**vade**-na) is basically the feeling of absolute empathy towards someone, where you can feel their pain as your own. It is a value built on the inherent empathy and humility in all of us and a skill because it can be a very powerful tool in the hands of a knowledge worker. This was first propounded by Anil Gupta of IIM (Indian Institute of Management), Ahmedabad, in the context of frugal, grassroot innovations.[11] *Samvedna* lets knowledge workers work consciously to create holistic, far-reaching solutions,while identifying problems which are beyond the scope of their specialization. Many knowledge workers have used *samvedna* to create unique solutions to complex, persistent problems.

Take, for example, Sugata Mitra, a professor of Education Technology at Newcastle University. His 'hole in the wall' experiment, where he left a computer in a slum community in India for children to experiment with, turned out incredible results as he saw children learning by themselves and teaching each other. The experiment was created out of the realization that the 'best schools can't exist where they are most needed' and that children, especially from disadvantaged communities, need 'not only basic education but also the ability to deal with an increasingly complex and connected world' [12]. The experiments have not only introduced many to the benefits of digitalization but also inspired innovative teaching methods around the world. In a recent article on Wired Magazine, Joshua Davis talked about how Sergio Correa, a teacher at a middle school in Mexico, inspired by Mitra's experiments, found outstanding results when encouraging children to learn independently[13].

Topics like human-centred design [20], empathic design [19], etc have cropped up, which also take from the concept of *samvedna*. But *samvedna* is more than empathy. It is also humility. It is the realization that problems cannot be fully understood as a sympathetic bystander. It begets immersion into people's circumstances. And *samvedna* can never be an end in itself, it is always a means to achieve holistic, sustainable solutions.

Another great example is the Honey Bee Network (HBN)- 'a crucible of like-minded individuals, innovators, farmers, scholars, academicians, policy makers, entrepreneurs and non-governmental organizations (NGOs)' [14]- set up by Anil Gupta in Ahmedabad, India, over two decades ago. What started as a collective effort to recognise and felicitate grassroot innovators and knowledge holders has now grown, along with off-shoot organisations like the National Innovation Foundation[16] and SRISTI [15], into an institution that supports frugal,

grassroot innovations by providing the innovators technical, IPR and business support. In 2010, HBN launched Techpedia - an online portal to link engineering students with grassroot innovators and small industries so that students can work on original, real-world problems and their solutions can be useful [17]. To look at the potential of impact, we should note that India produces about 1.2 million[18] engineers every year and all of them have to complete a 6 month academic or industrial internship in their final semester. Through Techpedia, innovators and companies get to pose challenges and problems, which can be picked up by students as projects. A side benefit is that the database of projects can ensure that students do not work on something already done before, instead take it further or do something different. HBN is full of people who embody *samvedna;* knowledge workers- students, professionals, academicians alike- from different specializations who work together to find innovative and frugal solutions to problems of people at the 'bottom of the pyramid'. HBN has allowed many from the informal sectors of the economy to become part of a global community. It organises a biannual, week-long walk through villages, covering over 100 km on foot, with the aim of learning from local communities about grassroot innovations, herbal medicine, Ayurvedic practices etc. The walk is called *shodhyatra* [28]- walk for innovation- and attracts people from all around the world to join in. It is an experience that takes directly from the immersive nature of *samvedna* and allows knowledge workers, among others, to fully appreciate the potential and circumstances of these people. I like to think of it as a crash course in *samvedna*. And it is such knowledge workers that can create social innovations to support technological change. They understand that Project Loon, Google's unique idea to use balloons to provide internet access to disconnected communities, won't matter much to the unskilled, illiterate or malaria-stricken unless there are educational and health services designed around the product to include such people in the benefits.

An even bigger challenge is the inclusion of socially and culturally ostracised communities. Let's ask this: How can knowledge workers help sex workers, from developing and undeveloped countries, benefit from digitalization? Prostitutes have been ostracised and left to pick up the leftovers of advancement. They are among the last to reap benefits, if any. Prostitutes are in a 'poverty trap' [29]-they can't earn enough to get themselves out and social stigma doesn't allow them to try anything else. A lot of organisations work towards their betterment but very few help them learn another vocation. However, imagine a knowledge worker repeating the hole-in-the-wall experiment at Kamathipura- the largest red light district in Mumbai- along with a training program for women to learn basic English and basic computer literacy. On the other hand, Techpedia could partner with NGOs working with such communities to include their problems among projects that students can take up. The hole-in-the-wall will not only help children teach each other but also their mothers. Once skills are gained, a portal like Freelancer[22], which requires no social or financial background information and has projects with basic skill requirements too, can help these prostitutes earn extra money on the side. May be it won't be enough to get them out of prostitution but they might save enough to extract their next generation from it. Many would argue that this is a simplistic view that ignores the criminal hand that runs this business. But there are already cases of success e.g. an NGO helped a girl from Kamathipura get educated and finally admitted at a liberal arts university in the US [23]. Social workers have put a foot in the door and knowledge workers could ram it open. The knowledge society does not lack technology, skills or creativity to solve such problems. It also does not lack the facility to create integrated solutions that are an amalgamation of good ideas from different areas. It mostly lacks *samvedna*.

Samvedna is a powerful tool for the knowledge worker. *Samvedna* towards the individual,

though, is not fully effective without *samvedna* towards the system that the individual operates in. In fact, *samvedna* towards the system might me be more important- solving the problems of the system invariably solves problems for the individuals and ignoring the problems of the system can have disastrous effects for the individual. e.g. The plastic sachet, which has made many expensive items affordable to the poor, is also becoming the major cause of land and water pollution in developing countries [25]. However, there are times when the priorities of the individual must take precedence but, in all cases, the system should be well understood.

"Would you tell me, please, which way I ought to go from here?"

I feel a logical conclusion to this essay will be to predict how micro-organisations and *samvedna* will affect the future of the knowledge society. Drucker said two amazing things about predicting the future [24]:

1. 'Trying to predict the future is like trying to drive down a country road at night with no lights while looking out the back window.'

2. 'The only way to predict the future is to create it.'

Drucker's teachings make it amply clear that it isn't about what the future is going to be, it's about what we make the future to be. Myriad opportunities and tools that digitalization has created are at the knowledge worker's disposal. Limitations and dangers are associated with these but so have they always with any technological revolution. It is the prerogative of the knowledge worker to use these opportunities judiciously and create solutions for the disadvantaged sections of society.

This demands a very important two-pronged role of managers :

1. To manage knowledge workers across micro-organizations to 'make them capable of joint performance'[1].

2. To create conditions such that micro-organisational aspirations and *samvedna*, within the knowledge worker, can become capable of joint performance.

And I think both knowledge workers and managers are progressively realizing that the problems of today cannot be solved with the techniques of yesterday. It is only a matter of time before this realization becomes common knowledge. In Drucker's deep, husky voice, it 'is not desirable, it is just inevitable' [30]. How soon the knowledge society acts on it will decide how productive future generations will be.

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