

The book cover features a background of light blue wavy lines on a dark blue field. A white-bordered rectangle in the center contains the title and author's name. The title 'MOTHERS OF INNOVATION' is written in white, bold, sans-serif capital letters. Each word is underlined with a horizontal bar that transitions from blue to yellow to orange. The author's name 'Geraldine Bedell' is centered below the title in a smaller, white, sans-serif font.

MOTHERS

OF

INNOVATION

Geraldine Bedell

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Mothers of Innovation

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Charlie Leadbeater is probably not referenced enough in the text but to anyone who knows his work, the extent to which this report is steeped in it will be glaring obvious. That is the least of my debts to him.



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INTRODUCTION

Too often, when we think about innovation, we make assumptions – that innovation is indistinguishable from science and tech, that it involves men (probably young men, probably wearing hoodies) and that it comes from special places: innovation hubs and labs and hack spaces with a steady supply of pizzas; design agencies with Post It notes on the wall, funky décor and beanbags; or from designated geographical areas – Silicon Valley or Silicon Roundabout.

INNOVATION does, of course, come from all of the above, but it also comes from elsewhere. To ignore that risks missing investment opportunities, and, at another level, the possibility of making a much better world.

The cultural assumptions that surround motherhood might seem diametrically opposed to the cut and thrust of innovation with its hero-inventors and spectacular breakthroughs. Mothers are popularly thought of as nurturing, caring, exclusively absorbed in their gurgling infants. Motherhood is culturally imagined as routine, monotonous, safe. Innovators, on the other hand, are dynamic, focused, abstracted, quite possibly a bit weird.

Both sets of prejudices are partial and sexist. Mothers are of course perfectly capable of being dynamic. And innovation is increasingly understood to be less a singular activity than a collaborative one; as much about repurposing and

recombining existing ideas and resources as coming up with entirely new revelations; and as much coming from outliers – remote communities and uncommon behaviours – as from the centre.

Even so, there *is* something in the nature and culture of motherhood that most women would acknowledge is different to non-motherhood – and it turns out that this is actually rather conducive to innovation. This report looks at mother-innovators around the world, both commercial and social, and seeks to identify the skills and capabilities that connect them.

These mothers are coming up with ideas just as people (even women) have doubtless done in all places and times. With increased economic opportunity and cultural freedom, they are increasingly able to put those ideas into practice in ways that change the world around them.

This report is an attempt to understand mothers as a force for innovation, globally and across sectors: innovating socially, commercially and economically. It is our contention that there are connections between mothers innovating for their families by farming chickens in India and mothers innovating in tech in the UK. And there are lessons to be learned in both directions. Often the innovations that occur on the margins, in the developing world, offer new ways of tackling problems that may also exist in developed economies. The effective and affordable delivery of healthcare is a worldwide problem: hospitals and health systems in the developed world are creaking under the strain. But as highlighted in chapter six, HIV patients in London are deploying their own tacit knowledge to support the work of doctors and nurses following a paradigm developed by mothers in Africa.

Motherhood is a vastly different experience for women even in similar socio-economic groups in Britain, let alone for women around the world. But some things are common. The world looks different when you become a mother. (This is also true of adoptive mothers). You are responsible for another human life, viscerally, immediately, and that forces you into a different relation to the rest of the world: your identity will never be the same again. And although in time you will recover most of your pre-maternal self, the very fact of having been forced to realign your perspective leaves you with a more contingent, less certain outlook. This may also be true for fathers, of course; but, for mothers, the physical disruption of pregnancy, birth, breastmilk and hormonal disruption is unavoidable, even before taking into account the differences in parental leave¹ or the cultural assumptions that derive from centuries of gendered responsibilities for the primary care of babies and families. All that disruption can be good for asking questions – and innovation is as much about asking the right questions as it is about answers.

If innovation is the process by which new ideas turn into practical value in the real world, then framing the question in the right way is much more likely to lead not only to a different idea but also the best way to put it into practice. Molly Melching, the woman behind a dramatic reduction in female genital cutting in Senegal, didn't tell families to stop mutilating their daughters. That had been

tried already. Aid agencies had tried it, the Senegalese government had tried it. Molly Melching invited mothers to think about their human rights and those of their daughters. She found a way not only to look at the problem from the other side and, from there, to disseminate her radical but simple approach through a web of relationships until the innovation became systemic. It was mothers, their networks of kinship, affiliation and affinity, who took over and carried the innovation forward, to the point that female genital cutting is now viewed very differently in Senegal, and practised far less.

The mother-innovators in this report share a strong sense of values. This is true for entrepreneurs in for-profit organisations as well as for those who have founded charities or pursued social innovations. ‘Motherhood forced me to ask, “what am I going to teach this kid about me? What do I stand for? What are my values?”’ says Babou Olengha-Aaby, the Oslo-based founder of crowdfunding platform, Mums Mean Business, which supports mother-led enterprises. Mother-innovators are united by a sense of contribution, of doing something that is valuable enough to undertake alongside bringing up their children, powerful enough to keep them going.

They are also pragmatic. Innovators typically develop a problem-solving mentality, an ability to dodge setbacks and pivot to achieve their goals. A powerful executive can have thousands of people anticipating her every wish, jumping to her every email; but a mother can never be entirely sure her infant or her teenage son is going to cooperate. Motherhood engenders a useful degree of humility and the ability to live with failure, which is crucial to that ability to acknowledge that things aren’t quite working and change direction. A Japanese proverb describes resilience as the capacity to fall down seven times and get up eight; mothers cannot afford to be knocked sideways and stay down. They have to keep the end in view.

The mother-innovators featured here are changing health, education, the environment and the workplace. They are innovating in tech, as entrepreneurs, opinion leaders and consumers. Taken together, they show that motherhood is not at odds with innovation; on the contrary, it is actively a spur to it. Many of the skills and instincts of motherhood, whether those are natural or cultural, are a positive advantage when it comes to innovating – and the report will draw out some of these.

The capacity of mothers to innovate isn’t simply about the psychology of motherhood. Mothers occupy a pivotal intergenerational position in families, responsible for the welfare of the young and the care of the old. They are at the forefront of consuming for families, making decisions about spending priorities and the family’s relationship to the wider community. Invest a pound in mothers and you get a multiplier effect: the ripples run through families and beyond. Ignoring the tremendous force for innovation that mothers represent – whether you are government, business or investor – means not only doing badly by mothers but by everyone else as well. Investing in mothers has the potential to boost everyone’s economic and social prospects.

A note on methodology:

To produce this report, we interviewed 25 mother innovators around the world in depth and talked to others. Around two-thirds of them were from the developed world. The mothers came from every continent and were involved in innovations:

- by mothers for and with mothers
- by mothers for the market as a whole
- by non-mothers for and with mothers

Approximately half of the innovations we looked at were social – in education, health, food and the environment. Others were primarily business innovations, featuring mothers as creators of new products and services. A few were economic – mothers innovating in the ways people are working. But in fact there was quite a lot of overlap between these categories: there was often both social and commercial purpose. It is fair to say that in all cases, mother innovators made a social case for what they were doing; there was invariably an ethical dimension.

In attempting to explore what mothers can add to the wider debate about innovation, I have organised the profiles of mother innovators thematically, partly because their talents, capabilities and styles of innovating span disciplines and it seemed that there might be lessons to be learned across sectors. While this seemed to me to be a more interesting way of looking at the qualities of mother innovators, it does have a random aspect: many of the stories exemplify more than one aspect of the innovation process, so the examples in the chapter on systemic innovation, for example, could have fitted into almost any other chapter. The overall aim was to highlight how far what we know about the conditions that foster and support innovation intersects with the skills, capacities and culture that mothers bring to bear on changing the world.

■ ■ ■



NEW VANTAGE POINTS - POKING LIFE

Steve Jobs once said: ‘The minute that you understand that you can poke life and actually something will...pop out the other side, that you can change it, that you can mould it, that’s maybe the most important thing...Once you learn that, you’ll never be the same again.’²

IT’S NO accident that Jobs’s description of the creative process sounds a lot like sex, childbirth and parenthood. Procreation is the most widespread and fundamental human creative process, the most commonplace and, arguably, the most exhilarating. In the developed world, in the 21st century, it also usually entails a radical shift in identity. Independent, autonomous, self-directed women become givers of life, the co-creators of nothing less than a new person, at the beck and call of something tiny, vulnerable and intensely demanding. You are never the same again and your sense that you can poke life and that it will never be the same again is highly visible, not to say audible. There is a loss of one kind of power and agency, to be sure, but the arrival of a very powerful new one (even if, between the nappies and the sleepless nights, it’s hard to appreciate that sometimes).

At the very least, new motherhood is a point of punctuation, a moment for a woman to reconsider her priorities and her place in the world. In most developed countries, this is marked by an officially-sanctioned period out of the paid economy when the point is to focus on your baby, to bond, to lay down

the beginnings of a healthy and happy future. It would be odd if that didn't also entail some reflection on one's own life. New motherhood is by definition a time of looking forward; it invariably also entails some looking back to one's own upbringing and childhood.

'When you become a mother, time stops for a while,' says **Mariah ben Salem**, director of **Drivhuset** (Conservatory), an incubator for entrepreneurs in Gothenberg, Sweden. 'You have time to think, "what do I want to do with my life?" You get very creative because you are exposed to a lot of need you haven't seen before. In Sweden we have a generous policy which means you can stay at home for nearly a year on virtually full pay, and that gives you time to reflect on everything. What we see is that new parents very often want to create value above themselves: suddenly you want to do more for the kids. You want your kids to be proud of you.'

Motherhood is nothing if not disruptive and, when disruption turns a problem on its head, it can be highly conducive to innovation. How you frame a question, in other words, can be the most important determinant of whether you find a solution. If, for example, your problem is that you can't find anywhere near your house to park with your baby, his car seat and changing bag, it is difficult to see how you might improve things, because the city is already clogged with cars and there aren't enough spaces. But if you frame the problem as one of a lack of family-friendly public transport, it is relatively easy to see how a solution might emerge.

Motherhood can offer a way of thinking about things afresh – not least because it often involves bumping up against problems you would much rather avoid. **Caroline Tomlinson** was lying in bed in Wigan one Sunday morning when someone came into her room and asked if she'd like a shower. Her son Joseph has complex multiple disabilities, the result of meningococcal meningitis, which he contracted at the age of six months. At the point when



'When you become a mother... You get very creative because you are exposed to a lot of need you haven't seen before.'

MARIAH BEN SALEM Drivhuset (Sweden)

someone barged into her room and assumed she was the client, Caroline had endured the best part of 12 years in what she describes as ‘service land, where things are done to you rather than with you’. Getting access to help for Joseph had meant going along with the idea that the authorities knew best, even though their representatives came and went and didn’t have the emotional investment that she did in his welfare. Quite a lot of the time, she didn’t even like the people who were parading in and out of her house. And clearly, some of them knew so little about what they were dealing with that they came into her bedroom and assumed she might need to be lifted into the shower.

Early on in this relationship with the state, a health visitor had warned her that no one apart from her really cared about Joe’s future. It was, she says, a brutal conversation, but it turned out to be very useful advice.

Her real worry, though, was what would happen to Joe when he grew up. For the first time in history, adult children with serious disabilities are outliving their parents. ‘We had been planning with Joe for years but it was hard to see how the services imposed on him by the system could possibly respond to what he’d want. He can be made anxious by the system – by having no sense of agency or control – and if that happened it might well lead to his challenges becoming significantly worse, with the potential to spiral out of control.’

‘He was getting £60,000 worth of help a year. It was a waste of bloody money. I said to the local authority, “give it to me and I’ll give half of it back to you.”’ Fired up by the experiences of people with children with disabilities in the United States, she brought together 15 families. In the past, they had felt in competition for scarce resources; now they would work together to pilot personal budgets. In 2003, Joe was the first person in the country to be able to make his own decisions about what kind of support he had and when. Now, at the age of 25, he has his own home, a mortgage, his own transport, his own business and friends.

‘He was getting
£60,000 worth of help
a year. It was a waste
of bloody money.’

CAROLINE TOMLINSON
In Control (UK)



Caroline Tomlinson readily acknowledges that, as a government policy, personalisation has not been an unqualified success: there can be too much bureaucracy and too much emphasis on a money-for-hours equation and not enough on creativity and flexibility. 'For me it was always a recognition that there are some things you can't buy.'

The Tomlinsons, though, have pioneered a way of caring that mixes state and family provision, that is flexible and responsive and has allowed the state to work with them, rather than doing things to them. They have used the personal budget to take back control of their own life. Joe is no longer dependent on a churn of people sent by the state with no personal stake in that day's work.

'We all want the government to spend more money and provide better services, but in the end, such services do not provide security,' Caroline Tomlinson says. 'People provide security. Joe's security, and my own, depend on his being at the centre of a network of people who care about what happens to him and will continue caring after I have gone.'

Motherhood – of a very particular, raw kind – has propelled Caroline to do things she would never have imagined before she had Joe, including advising the Department of Health, leading a campaign, becoming a community activist and speaking on platforms all over the world. She has made alliances between people with power – politicians and health officials – and families at the end of their tether, with none. She has been pragmatic and flexible, moving in and out of roles in statutory authorities and the third sector, working both on the inside and as an outsider.

Yet despite having been a prime mover in changing the way families with disabled children get support, Tomlinson sees herself as an ordinary woman doing the best for her child. It may be that one reason we don't think of mothers as innovators is that mothers don't think about it like that themselves. They don't envisage themselves as heroic trailblazers, but as parents solving problems, sorting things out, doing what needs to be done. 'I am absolutely convinced had I not had a child with disability my sense of strength and self-efficacy would never have evolved...I also firmly believe that talent is often over-rated. It is how much you want something, how determined you are and how much you can't possibly lose that will make you succeed.'

Even without the focus brought about by having a disabled child, mothers very often find that motherhood induces them to see the world in a new light. **Babou Olengha-Aaby**, founder of **Mums Mean Business**, a crowdfunding platform for mother-entrepreneurs based in Norway, describes a common experience: since she had a child she has become unable to watch films in which children are abducted or hurt. What used to be a narrative device, a story, has become practically unbearable to contemplate. Olengha-Aaby believes many women are differently-sensitized to the world after the birth of a child. This may well entail a shift of values: 'I started thinking about my life, what I was going to

do with it, what I was going to communicate to my child about what I stand for.’

Mothers who work in the paid economy are aware that they are taking time away from their children to do so. That is of course true of fathers too and, for most women, there is no longer much choice anyway. Economic necessity dictates the need for paid work; but the fact that, throughout history, women have traditionally been assigned responsibility for the care of family members, particularly children, means that it would be an unusual mother who didn’t give being away from her child any thought at all. The moralisation of femininity puts pressure on women to appear nurturing, as Pamela Stone has observed; she makes the case that taking time out of a career to assume full-time mothering responsibilities offers a powerful display of femininity.³ This gender identity can prove expensive. Mothers experience acutely the timeless economic and moral dilemma of how to balance individual interests against those of family, friends and community.

Throughout history, as the feminist economist Nancy Folbre points out, economists have typically praised men for their self-interest while criticizing women for being selfish. This apparent inconsistency derives partly from the historical assumption that men and women should ideally inhabit separate spheres, work and home, devolved respectively on the market and the family. For Victorian and Edwardian commentators, a woman who strayed into the workplace betrayed her nature and her children – and worse, she betrayed men because she was the one who was supposed to be safeguarding the virtues of

‘When women tell you about their idea, there is always some element of giving back.’ **BABOU OLENGHA-AABY** Mums Mean Business (Norway)

Photo: Oslo Tech





‘I have always asked myself, “what difference can I make that is worth my while... rather than being at home?”

SILVIA TORRES CARBONELL Endeavour Global (*Argentina*)

nurturing, care, generosity and putting other people first. It was the very fact that she was looking after that side of things that allowed men to go on being self-interested. As Folbre puts it: ‘this social cosmology offered men the possibility of inhabiting both worlds, buying their cake and having it homemade for them, too. It created a sacred space in which traditional moral values remained exempt from the demands of economic rationality.’⁴

Of course, hardly anyone today believes that it is women’s duty to stay at home looking after everyone in order to maintain the moral fabric of society. (In the mid-1980s, nearly 50% of those questioned in the British Social Attitudes survey supported a gendered separation of roles, with the man in the breadwinner role and the woman taking responsibility for caring; by 2012, only 13% thought this was desirable.)⁵ We are, nevertheless, haunted by the ghosts of these ideas, still carrying the cultural baggage handed to us by men like Alfred Marshall, the influential late-Victorian professor of economics at Cambridge, who decreed: ‘The most valuable of all capital is that invested in human beings; and, of that capital, the most precious part is the results of the care and influence of the mother, so long as she retains her tender and unselfish instincts, and has not been hardened by the strain and stress of unfeminine work.’

This idea of separate spheres has reverberated down the generations. As Sharon Hays was still able to say in 1996, ‘the contemporary attempt at a solution to the cultural contradictions of motherhood is to ideologically separate the world of motherhood from the larger social world and therefore make women responsible for unselfish nurturing while men are responsible for self-interested profit maximisation.’⁶

For the Victorians and Edwardians, working women were dangerous and undermining, threatening to erode human capital altogether and if they did ‘unfeminine’ work, that was most morally undermining of all. Oddly, and disappointingly given that women were involved in the early days of computing, tech and the life sciences are today stigmatised as unfeminine work.⁷ They attract relatively few women and have been seen as not entirely a good fit for girls – and that is a disservice to women because these areas, with their potential for fast growth, are precisely those in which venture capitalists invest most heavily. Today in Europe, only around 20% of venture capital goes to businesses owned and run by women.⁸

Like it or not, we are affected by the legacy of the 19th century views of Alfred Marshall and his colleagues⁹; we can hear their echoes in the findings of Columbia Business School professor Frank Flynn and New York University professor Cameron Anderson, whose work Sheryl Sandberg highlights in *Lean In*. In 2003, Flynn and Anderson conducted an experiment in which they described to students at Harvard Business School the career of a successful venture capitalist, changing only one detail: for one half of the students, he was Howard; for the other, she was Heidi. Students respected both characters (it was

an impressive career) but Heidi, unlike Howard, was seen as selfish and ‘not the type of person you would want to hire or work for.’ Sandberg notes that this experiment reinforced a body of research that shows that success is positively correlated with niceness for men, and negatively for women.

Women don’t lean in, Sandberg unhappily acknowledges, at least partly because we all want to be liked. Many women decide being viewed as unpleasant, pushy, bossy, cold, or worse is too much of a risk and a burden. (It’s a rotten choice, and quite a lot of women refuse to make it, fudging the issue instead by settling merely for being less successful than they might have been.) Deborah Greenfield, Professor of Leadership and Organisational Behaviour at Stanford, confirms this: ‘Our entrenched cultural ideas associate men with leadership qualities and put women in a double bind. We believe not only that women are nurturing but that they *should* be nurturing above all else. When a woman does anything that signals that she may not be nice first and foremost, it creates a negative impression and makes us feel uncomfortable.’¹⁰ Consequently, women avoid being viewed as selfish, grasping, bossy and dislikeable by reflexively putting themselves down first. As Ken Auletta summarised the phenomenon in the *New Yorker*, ‘self-doubt becomes a form of self-defense.’¹¹

Historically, women were the force that kept the market in check, rather than the drivers of the market, and it may be that we see the aftermath of that now in the kinds of businesses that women seek to create. ‘When women tell you about their idea,’ Olengha Aaby says, ‘there is always some element of giving back. Even when it’s a for-profit business, there is usually some positive social outcome. My view of women-led businesses is that they not only *do* better but are *for* the better.’ (Women not only seem drawn to social businesses but may also do better. Social Enterprise UK, in its State of Social Enterprise survey of 2013, found that ‘women are almost twice as likely to reach the top of social enterprises than they are in normal businesses – 38% of social ventures are now led by women, while there are more than twice as many men than women in conventional business.’¹²) Mothers may, perhaps, still need to justify their devotion to something that isn’t their child and home. To be worth doing, work has to matter. And it is when people are driven by strong values and powerful passions that they are driven to innovate.

Silvia Torres Carbonell is sometimes called the mother of entrepreneurship in Argentina. She created and sold a bottled water business, founded an NGO supporting rural schools and is now on the Argentine board of Endeavour Global, the New York-based non-profit developing high-impact entrepreneurship in developing markets. For her, the question of whether work aligned with her values has always been explicit. ‘I have always asked myself, “what difference can I make that is worth my while being here rather than being at home?”’

Fathers may increasingly ask themselves this question; but for mothers it is – or has been – reflexive. ‘My generation was the first to enter the public domain,

the first to think seriously about living our lives in balance, the first for whom that required effort. It has to be like having your second child; you don't divide up your love, you multiply it. You want to feel like that about your work – that you are multiplying yourself. But it has to matter; to make that worth doing, it has to be important.'

The generations of exclusion from paid work mean that mothers can't help but bring a different perspective to bear. That in itself is a trigger for innovation: women see how things might be done differently. A family-friendly transport system, for instance, would probably look quite different from the one we've got. The burden of care for the elderly falls disproportionately on women and it is unlikely that any healthcare system devised by mothers would largely exclude care for patients with Alzheimer's, for example. Starting from a perspective of responsibilities, rather than from the availability of drug therapy, mothers would probably be inclined to see dementia as no less of an illness than cancer.

That different perspective also means that mothers want to spend their time on work that reflects their values. In reality, of course, women have always worked. The fact that the women's economy has been a shadow economy doesn't invalidate it. Women have worked in ways that focused on human capital and we live with that heritage, seeing it reflected in the innovations that, with increasing economic and political power, mothers create. Women are not, we can fairly safely assume, more altruistic than men, but our roles have made us focus on the human, the personal, the cooperative and the social.¹³ Mother-driven innovations are often fed by relationships; they may well reflect concerns with time, wellbeing and mutuality. Mothers have lots of very good reasons to want to change the world.

■ ■ ■

VALUES

‘Ideas are like rabbits,’ John Steinbeck said, ‘you get a couple and learn how to handle them, and pretty soon you have a dozen of them.’ Ideas, in other words, come to those who are in a state of readiness, who are prepared to try them out, whose values incline them to look beyond the status quo for an improved way of doing things.

DIEGO RODRIGUEZ, in his blog Metacool, has another, similar, way of putting it: he says innovative thinkers often use ‘informed intuition’ to identify a key insight, need or feature. Innovation requires a wealth of experience, in other words, a bedrock of knowledge and understanding out of which people can make connections, perhaps bringing together a new thought with an old or combining one area of experience with another.

Pam Warhurst, the founder of **Incredible Edible**, a community growing scheme, describes this serendipity when she talks about being at a conference in 2007 and hearing a talk by the food policy expert Tim Lang. ‘I was the right person to be hearing the right message at the right time. I wasn’t Steve Jobs or a national leader. I was a single parent, an ordinary woman. But I heard what he was saying and thought I didn’t want to pass the buck. There has to be a better way of living – and if we’ve made the systems we live by, we can unmake them.’

Warhurst was an economist and a social activist and she had been mulling over the atomisation of local communities and the disjuncture between production and consumption for some time. All this was crystallised by the Tim Lang lecture and her thoughts about it on the train back from London to Todmorden in West Yorkshire. Not unlike JK Rowling on another productive

‘There has to be a better way of living
– and if we’ve made the systems we live
by, we can unmake them.’

PAM WARHURST *Incredible Edible (UK)*



train journey, by the time she reached her destination, she had charted out her entire project. If, as she reckoned, the business of getting and spending was leaving too many people feeling dissatisfied and cut off from their communities, a different way of thinking about food might be the way into thinking about how to restore some sense of connectedness. Growing food together would put people in touch with the environment and their locality. Sharing it would introduce new kinds of reciprocity with their neighbours. Cultivating and preparing it could be the basis for learning and the development of new skills. And the whole project could lead to the development of local businesses that would be less heedless of the communities in which they operated.

Warhurst acquired some allies – a council community development officer and a cook at the high school – and put an ad in the local paper, calling people to a public meeting. ‘We didn’t say we were saving the planet: we said we wanted to grow more food, keep kids in the town, create jobs.’ The idea was immediately understandable because it was a very traditional notion. The market garden has been a feature of English life for centuries: Warhurst proposed to transfer it to grass verges that were previously used by dogs, or onto a bit of scrub outside the disused health centre. The plan also reminded people of digging for victory; a number brought to the meeting photographs of vegetable-growing in their parents’ back yards during the war. Innovation, as Brian Arthur has pointed out, ‘is a constant re-expressing or re-domaining of old tasks – accounting, or transportation, or medical diagnostics – within new worlds of the possible.’¹⁴ Paul Polak, the founder of Windhorse International, which delivers technology to the world’s poorest one billion customers, argues that by going back to earlier ways of doing things is often the best way to arrive at affordable, adaptable and innovative solutions.¹⁵ Sometimes the key to a successful future lies in re-envisaging old solutions in a new context; and in Todmorden, the most traditional task of all, growing food, found new expression by taking place in public spaces that had previously been neglected. ‘We weren’t inventing anything; we were reminding people of when it was second nature to look after themselves,’ Warhurst says.

In addition to creating the 30 raised beds that appeared around the town, Incredible Edible persuaded the local authority to run free adult education classes in growing, grafting fruit trees and cooking. The high school used the public growing spaces to teach biology, chemistry and history and started a BTec in land studies; 18 students who would otherwise have had no qualifications have since passed the exam. Warhurst says their behaviour has changed significantly: ‘The school identified them as having challenging behaviour but their involvement with the aquagarden they’ve created shows the opposite.’

Incredible Edible gave out noticeboards to market traders so they could highlight their sales of local produce and raise awareness of where food was coming from. Todmorden now has more market stalls than it did before and stallholders sell a lot more local food. ‘If all we’d done was plant public spaces, that would have been grand,’ Warhurst says, ‘but we always wanted to underpin that with community



learning and a sense of responsibility about how people were spending their money – it wasn't just horticulture, but also education and the economy. We always believed we could create a vibrant local economy if enough people were eating local food.'

People have adjusted to the idea of communal growing of food for sharing. 'There were people who came and dug up all the potatoes, but you just have to assume they needed them,' Warhurst says. Nowadays, visitors come from all over the world to see Todmorden's vegetables growing on roadside verges: Incredible Edible has invented a new form of tourism, with local residents guiding them around the town's green route. 'They don't come because they want to see what cabbages look like in Todmorden,' Warhurst says, 'it's because they feel that there's something here about people doing things for themselves.'

There was some resistance to Incredible Edible. The local health trust was initially disapproving about its land being taken over by guerilla gardeners; more passively, in the early days no one picked anything because they assumed they would be prosecuted or reported. There are often reasons for people to resist innovations – even when they are being offered free food. Disruption can be uncomfortable and new ways of doing things can take time to get used to. It took time – 'you can't buy your way into changing the way you live' – but Incredible Edible became a success because its underlying values were sufficiently persuasive.

The driving values for Pam Warhurst have been to do with regenerating a community that felt cut off from success. 'There is an opportunity to redefine prosperity, if we want to,' she says – 'to think that it's not about getting huge bonuses but about saying hello to people in the street.' The town has become a



more sought-after place to live. The police report that community relations have improved significantly.

There is a network of more than 200 Incredible Edible schemes globally. In Barnard Castle in Teesdale, County Durham, a group is using the model in partnership with a local prison, encouraging young offenders to propagate plants for the town gardens, print volunteers' t shirts and take the lead on branding. In Clough Mills in Northern Ireland, Protestant and Catholic families are working together on edible town gardens.

For Warhurst, the project has always been fundamentally about creating 'a model of resilience'. Growing up in an edible landscape makes children think differently about the world, she believes – and it makes people generally feel less helpless in the face of global forces, reminds them of their capacity to do things, to order the world in the image of their own ideas about prosperity and happiness. As a volunteer scheme, Incredible Edible has no funds for evaluation; Warhurst would like to take a rigorous approach to assessing the effectiveness of its project, rather than simply watching it spread into other towns and countries. But what is clear is that from one spark of a speech and one train journey, she has been able to form alliances and generate ripples of creativity that have changed the way the people of Todmorden understand themselves and how they are perceived by the rest of the world.

♦ ♦ ♦

EMPATHY

When Molly Melching's daughter was 12, she came home from school and asked when she was going to have her genitals cut. Molly, an American, and her daughter Zoe live in Dakar; Zoe had spent her whole life in Senegal. Her friends had told her about the practice we call female genital mutilation, which they said was an ancient and important tradition, an honour bestowed on a girl.

ZOE WANTED to know why her mother hadn't arranged for her to be cut like everyone else? The tradition was a rite of passage; if she didn't go through it, she wouldn't be respected. Her friends said the tradition called upon girls to be courageous: did Molly think she wasn't brave enough?

Molly showed Zoe the pictures she'd collected of different types of female genital cutting. She told her stories of women whose daughters had haemorrhaged or developed painful cysts as a result of botched operations. Despite being at school with girls who were undergoing the procedure, Zoe had no idea of what it actually entailed. She was horrified. For Molly, this was a decisive moment: the fact that her own daughter, an American, was feeling pressure to be cut made her reassess her reluctance to speak about what is known in Senegal (though it is spoken of very little) simply as 'the tradition'.

Molly Melching has lived in Senegal since 1974, when she arrived from the University of Illinois on an exchange programme with the University of Dakar. She fell in love with the country; after university, she lived as a Peace Corps

volunteer for three years in a 10' by 10' adobe hut with a thatched palm roof and packed earth floor in the remote village of Saam Njaay. She discovered that, too often, development officers often arrived in Senegal with clear ideas about what they wanted to achieve. They didn't ask the villagers if they shared these goals; they didn't work with them on the management of the projects. Often they came back several years later to rusty vehicles and broken millet grinders.

Molly developed an alternative development plan with Senegalese cultural specialists: a community empowerment programme that started with what villagers themselves wanted – making improvements with people rather than for them. She called the programme **Tostan**, which, in the West African language of Wolof, means breakthrough (literally, the moment when a chick breaks through an eggshell).

The Tostan programme is no quick fix: it's a three-year curriculum, with classes three times a week in problem-solving, health and hygiene, in preventing child mortality, in financial management of village projects, in leadership and group dynamics. It concludes with feasibility studies for income-generating village projects. Literacy and numeracy are integrated into each module. Molly managed to raise funding from USAID and then from UNICEF and, by 1994, Tostan was working in 350 Senegalese villages with 15,000 people in five national languages. The bedrock of the programme was its emphasis on human rights.

At first, women found it hard to believe that they might have equal rights to work, education and health, or to be free from violence. Domestic violence was socially sanctioned, if a wife spoke in public, for example, mistreated her children or worst of all, rejected her husband's sexual advances. Often villagers were astonished to hear about the 1979 UN Convention on the Elimination of All Forms of Discrimination Against Women, and that Senegal had ratified it. Envisaging their human rights gave women a way of comprehending an alternative existence, one in which they had the right to be treated with dignity.

As the women on the Tostan programme became more interested in their children's health, they felt a growing need to learn about their own. 'The tradition' loomed large in this: any woman who was not cut would not be respected or allowed to participate in women's meetings. She would be considered impure. One woman from a village in which cutting was not the norm married into one where it was and told Melching that she was persistently excluded: when

'I've never met a mother who wants to hurt her child.'

MOLLY MELCHING Tostan (*Senegal*)



she washed clothes, other women would re-wash them. She was not allowed to serve food and, when she came into a room, others got up and left. Despite these extreme sanctions, the tradition was shrouded in mystery, never questioned because no one spoke of it. No one spoke of breathing, either: it was just the way things were. Once a woman was cut, it was incumbent on her to remain silent; speaking about it would cause bad things to happen.

Molly had always been reluctant to tackle female genital cutting through the Tostan programme. The issue was too sensitive, too fraught: 'I had the sense that this was a cultural issue that a white American woman should not be getting involved in. The women in the programme wanted me to include it in the module on women's health and they were upset with me: they said, "it's our organisation, not yours.'" After her own daughter came home wanting to be cut, Melching finally felt she had a right to engage with the tradition; she was affected by it too.

Plenty of people had tried to stop female genital mutilation in Senegal, as elsewhere. Their approach – whether they came from NGOs or the government – was to point out that it is 'barbaric and uncivilized and people should stop now.' Innovation often depends on re-framing a problem. Molly Melching never refers to the practice as female genital mutilation (fgm), the UN's designation. She thinks this contains an assumption of superiority, implies disdain, and makes people defensive. Female genital cutting is a 2000 year-old tradition, an article of faith, something the family does and friends do, without which a young woman is not properly looked after. To tell people this is cruelty goes against everything they believe. 'I have lived in Senegal for 40 years and I've never met a mother who wants to hurt her child. When you have a social norm that people think is good, you simply make people angry if you tell them it's bad. The reason people were cutting their daughters was so they would be loved and respected and be able to get good husbands.'

Tostan's approach to female genital cutting followed the programme's usual pattern of providing value-neutral information and giving villagers space to come to their own conclusions. Women in rural Senegal had never had the opportunity to look at their own anatomy. They weren't aware that using an ancestral knife that has been buried in the ground to cut a girl's clitoris might give her tetanus.

Sometimes, innovation is about bringing tacit knowledge to the fore. There had always been suspicion that cutting might be the cause of the haemorrhaging girls frequently suffered from subsequently; but they had always been told this was caused by other illnesses, or by bad spirits. They had no information with which to counteract these accounts. (If this seems incredible, Molly Melching likes to compare it to the myth that you can drown from cramps if you swim after eating, which has no basis in fact but which many of us were brought up not to question. There are plenty of irrational beliefs in the world.) In bringing to bear intuitions the villagers had not previously had the means to articulate, Tostan opened up a new way of framing the tradition. Until then, it had simply

been the best method for protecting and loving their daughters.

Melching recalls that the women were initially impassive. They sat silently through the information about the implications of genital cutting, to the extent that she asked if she should take out this element of the module. She was surprised by the vehemence of the response. “They said, “you absolutely must not take this out.”” The women were discussing the issue among themselves; in due course, they decided what to do. On 31 July 1997, 37 women in the village of Malicounda Bambara made a public declaration that they were going to end female genital cutting.

People in the surrounding villages noted that they were not promptly struck down by misfortune. There was immense resistance, even so, and it rapidly became apparent that for 37 women in one village to repudiate the practice was not enough, even for that village. People in rural Senegal typically intermarry with the inhabitants of 10 other villages. When it comes to social norms, what one family chooses is crucially dependent on what others are choosing and even a community the size of a village cannot change its social norms.

The work went on. Female genital cutting stayed on the Tostan syllabus and in time, more and more villages made public declarations. The drastic reduction in female genital cutting in Senegal – more than 5000 villages have now made declarations – has been compared to the elimination of foot binding in China. It is only when the people who are carrying out the practice see it from a completely different angle that innovation can come; only when they have internalised the need to stop that it can be eradicated. Melching recognised from the outset that there was no point in telling people fgc was bad for them. The tradition was too deeply ingrained in their sense of identity, their belief in their own goodness. When, in 1999, the Senegalese government passed a law to make female genital cutting illegal, she resisted the move. Too many people believed that what they were doing was right – and, in fact, the following day in the region of Kedougou, 100 girls were cut in protest.

Melching took an empathetic view. She had the privileged perspective of a Western woman who had not been cut and knew what the implications of cutting were for health and sexual pleasure. But she looked at the problem not simply from above, as all the other agencies were doing, but also from below, from what it felt like to be a woman who regarded herself as duty bound to uphold an ancient and noble tradition. Innovation literature devotes a good deal of space to the need to cultivate empathy. David Kelley, founder of design consultancy IDEO and creator of d.lab at Stanford, and his brother Tom Kelley, author of *The Art of Innovation*, recommend a series of strategies for getting inside other people’s heads. ‘We’ve found that figuring out what other people actually need is what leads to the most significant innovations,’ they write. ‘In other words, empathy is a gateway to better and surprising insights.’

Molly Melching was immersed in Senegalese culture: she had lived in a palm hut for three years. She had done her ethnographic work (not that she

would have thought of it like that); she knew what the problem *felt* like, as well as looked like. She also looked at it sideways: rather than tackling it head on, she addressed it through a discussion of human rights in a way that left plenty of space for the women on the Tostan programmed to try out their own solutions.

The work of Eric von Hippel at MIT's Sloan School of Management has been influential in demonstrating how much more effective innovation is when it involves users.¹⁶ Melching didn't tell the women of Senegal what to do. Nor did she simply give them health information. In Egypt, where medical information is more widely available and has been used to try to stop fgc, communities have taken to medicalising the process; doctors are now paid to do it. Certainly, this has minimised infection and haemorrhage, but doctors have become accustomed to viewing fgc as a source of income, which has only helped to embed it. The fact that there is less immediate medical emergency does not address the fundamental problem of power and control over a woman's sexuality. Melching presented the issue in a holistic context of human rights, empowering the women to take control of the tradition in the same spirit in which they were asserting themselves against violence. She gave them the framework to make the decisions – but they were their decisions. This enabled her to be a much more effective innovator: when she took the Tostan programme to neighbouring Guinea-Bissau, she was warned that the last woman who had come into the country to work on female genital cutting had died. Her response was that she wasn't there to tell anyone to stop fgc. She was there simply to help communities achieve well-being.

Today Tostan works not only in Guinea-Bissau but also in Mali, the Gambia and Mauritania. (The organisation had to pull out of Somalia because of the political instability). Melching acknowledges that the Tostan method is a process and takes time and there hasn't been 100 per cent abandonment of fgc in Senegal. But there is a critical mass of resistance, to the point that fgc is no longer an imperative. It has to be justified and there are increasingly few justifications. More than 5000 Senegalese villages have declared an end to the practice of female genital cutting in their communities. Drawing on this momentum, the government of Senegal has announced a national action plan to end fgc by 2015, based on the community-led human rights approach developed by Tostan.

Melching's work has been stealthy, and has depended crucially on mobilising communities, on providing them with a new space in which to imagine things differently. For all the attempts that there have been to systematize innovation, to break it down into ideation and prototyping and establish a reliable method, the key ingredients of Molly Melching's innovation have been empathetic and intuitive. She stood with the villagers rather than in opposition to them. She offered them information to do with, make of, what they wished, rather as an artist might offer a painting, or a writer a novel. She gave them the space to be creative – and she understood, as campaigners coming from outside had not, how to involve the community at large and put their future in their hands. ■ ■ ■

JOINING THE DOTS

Joyce Young's 18 year-old son, James, was stabbed in an argument in Blackhill, Glasgow in August 2011. He got into an argument, ran away and reached his grandmother's front gate, which stuck. That was long enough for him to be stabbed a fifth time, in the back, puncturing his aorta.

JOYCE, who is a midwife, regularly addresses up to 150 gang members who are brought into meetings, often from prison, by the police. She tells them how she goes into James's room every day. She asks them to remember that, while they might not care about themselves, their mothers do care about them, and they should think about them. Usually, there is sniffing and crying.

Karyn McCluskey is the director of the **Scottish Violence Reduction Unit** and the person responsible for bringing Joyce face-to-face with the gang members. 'Mums are the catalyst to change,' McCluskey says. 'When these young men go to prison, other gang members might visit five times, a girlfriend maybe seven times, but mothers will visit year after year. They never give up on them.'

McCluskey arrived in Glasgow in 2002, when the city was the murder capital of Europe. A single parent, she came from West Mercia police and had moved back to her home town with her two year-old daughter to be nearer her parents and to head up intelligence analysis for Glasgow police. In West Mercia there were three murders in two years; in Glasgow there were two or three a week. Life expectancy for men was lower than in Baghdad. Not long after she arrived, a 16 year-old youth was stabbed in the street. A 73 year-old woman held him in her arms as he bled on the pavement. He died crying for his mother. Thanks to the presence of the woman, the story (unlike a lot of gang murders) received a good deal of publicity, and Karyn McCluskey remembers thinking that this would be

Glasgow's Rosa Parkes moment: something would have to change.

Nothing did. Detection and conviction rates were excellent but imprisoning gang members wasn't making any difference; the murder rate never went down. At that point, police records showed there were 170 gangs in the city, with as many as 3,500 members aged between 11 and 23.¹⁷ What's more, the reports of A&E staff and trauma surgeons suggested that as many as two-thirds of knife crimes were not even being reported to the police, making a nonsense of the crime figures and detection rates. Every six hours in the city, someone was suffering a serious facial injury.

McCluskey's insight was to frame this problem not as a criminal justice issue but as a disease. 'It's passed on. You can catch it. Your life is not manageable.' The police needed to look at the causes of the infection and at what conditions allowed it to thrive, rather than simply locking people up. Like Molly Melching, McCluskey wanted to change social norms; like Melching, she recognised that that meant working with the assets in the community, rather than focusing on the deficits. It required empathy on her part, and the leveraging of empathy in the community.

The problem of gang violence wasn't isolated from all the other problems in young men's lives. It wasn't even fundamentally about gangs: they were the symptoms as much as the cause of trouble because there was violence when young men were in pairs and on their own as well. The Violence Reduction Unit developed a strategy that combined tough policing (zero tolerance of knife carrying, for example); a pledge from agencies that if young men left gangs they could get help with education and finding jobs; and an appeal from mothers like Joyce, who were the only figures the gang members could relate to in what most of us would think of as a normally empathetic way. The gangs, boys who normally couldn't share space without battering one another, were brought to meetings, 'call-ins', and explicitly told to stop the violence.

The meetings were just the end point of a much broader-based process. McCluskey had to involve the wider community, to take a holistic approach, to join up the dots of support around the lives of young men. She involved dentists: teeth are the first thing to go in a fight, so dentists are well-placed to spot those at risk of violence. They were able to alert the police and to help monitor the scale of the violence. Trauma surgeons were co-opted to show the gangs graphic images of injuries and explain to them exactly what would happen to them in A&E.

In schools, older children were encouraged to mentor younger ones, with the aim of encouraging them to work out their own alternatives to violence. (In one school this resulted in the students deciding among themselves that they were going to stop all sexist comments, including on Facebook.) The fire brigade agreed to report signs of domestic violence and are now often accompanied on callouts to chip pan fires by ex-gang members, who provide peer-to-peer counselling to violent men. 'Two of the guys who are best at it have served 20

‘Mums are the catalyst to change.’

KARYN MCCLUSKEY

Scottish Violence Reduction Unit (UK)



years between them,’ she says. ‘The people who know the problem have to be part of the solution.’ Other gang members decided they wanted to start maintaining neighbourhood gardens, including those belonging to empty houses, as a way of giving some hope back to the jobless and bleak-looking estates where they were living.

McCluskey always believed it was vital to focus on parenting. ‘When I first talked about parenting as a solution to murder, the headlines were terrible – “Karyn McCluskey wants to get back to the kitchen and start baking scones”’. The ridiculing of parenting as an exclusively female concern, and somehow pathetic was symptomatic of the problem: men were missing from civic life, inhabiting their own violent world, inimical to empathy.

The Violence Reduction Unit works closely with Early Years providers in Glasgow to offer intensive help to parents and their infants to establish empathy – teaching both parents and children to understand how other people feel and to respond. It is McCluskey’s approach writ large: her work aims to generate empathy in gang members, their families and the children at risk of gang violence in the future. She didn’t invent the idea out of the blue: she adapted a scheme that had already worked in Boston (where youth homicides decreased by two thirds in a matter of months), Chicago and Cincinnati.¹⁸ And her innovative approach has worked: Glasgow is no longer the murder capital of western Europe. Violent crime among some gang members has halved; among others, it’s down 25%.¹⁹ The Violence Reduction Unit’s remit has been extended to the whole of Scotland.

Where Karyn McCluskey sees violence as a disease, on the other side of the world, Vera Cordeiro sees disease as a kind of violence, inflicted by poverty. The end result of deploying these metaphors for each of them was similar – it enabled them to join up the dots, to address the symptoms of what were bigger, more systemic problems.



‘It seemed obvious that we had to get outside the hospital walls if we were going to make a real difference to our patients.’ **VERA CORDEIRO** Saúde Criança (Brazil)

In 1991, **Vera Cordeiro** was working as a paediatric physician in Hospital da Lago, a public hospital in Rio de Janeiro, married to the country director for IBM in Brazil, with two daughters aged 13 and 10 – and she was increasingly distressed by the vicious cycle of hospitalisation and re-hospitalisation she saw among her patients, most of whom came from Rio’s slums. Mothers whose children had cancer would ask her if she had any blankets to cover them at home, because they were afraid they would catch cold and then the doctors would stop the chemotherapy. Cordeiro wondered what the point was in giving people chemo when they didn’t have blankets. Sometimes the mothers would ask her to take their children because they were unable to look after them themselves. For many women, having a sick child meant a choice between buying medicine for them or feeding the others.

‘Mothers had no money for medicine, they were jobless, their housing was inadequate – they all had different needs, but it was clear that we weren’t solving their problems in the hospital. We were seeing the same children over and over

again and it seemed obvious that we had to get outside the hospital walls if we were going to make a real difference to our patients.’

Vera Cordeiro, like a lot of innovators, turned out to be extremely good at networking: passion for an idea can overcome all kinds of reticence or embarrassment. It can also fire those on the receiving end with enthusiasm. Dr Cordeiro got together a group of volunteers to find out from the mothers who arrived with their children what their families actually needed and **Saúde Criança** (Children’s Health) was born. The group worked in the hospital at first, then in a disused stable block in a public park nearby. Some 95% of the families coming through the hospital were headed by lone mothers, according to Cordeiro: the men were nowhere to be seen, defeated by the stresses of bringing up a family in conditions of extreme poverty. This perhaps says something about the resilience of mothers.

The volunteers were trained to break down the complicated nexus of problems faced by families into manageable steps – do you have beds? do your children eat? what skills do you have? Saúde Criança works across five areas: health and psychological support; education; housing; income generation; and citizenship (for example, mothers were frequently entitled to claim benefits but hadn’t been able to access forms). ‘The volunteers listen to them extremely carefully,’ Dr Cordeiro says. ‘Sometimes a mother needs psychological support, or legal help, or it may be that her housing is so terrible that rats come to eat the feet of her children.’ Each woman is helped to develop a two-year action plan. ‘She starts to think about the solution for her. She understands better than us what that is. After two years, you have a very powerful woman in front of you.’

Mothers who have been through the programme mentor the new entrants – mobilising mothers turns out to be the most persuasive factor. The programme costs around \$350 per family per month: originally, it was funded by subscription and by foundations; later, the Brazilian National Development Bank invested, on the basis that Saúde Criança had the ability to break vicious circles of poor health, poverty and lack of education. A recent Georgetown University analysis found that average stay in hospital for a child whose mother was on the programme fell from 62 days to nine. The proportion of children in school rose from 10% to 92% and there was also a 92% increase in household income. Three to five years later, families were doing even better. The report concluded that Saúde Criança ‘effectively targets the most vulnerable groups and empowers their beneficiaries to weather severe health shocks and more importantly, to take control of their own destinies.’ Investing in mothers turns out to improve the wellbeing of a much wider group of people, boosting families’ incomes and empowering communities.²⁰

■ ■ ■

RELATIONSHIPS

Dorcas Inyele found out that she was HIV positive at the same time she learnt that she was pregnant. The HIV test was the first she'd ever taken and the result was a terrible shock. She was afraid for herself, for her unborn baby and of telling her husband.

THERE WAS little discussion of HIV and Aids in Kisumu in Western Kenya, where she lives, and the disease carried huge stigma. It felt, she says, like the end for herself, her child and, probably, her marriage.

That was four years ago. **Dorcas Inyele** was fortunate. A decade earlier, in South Africa, a movement had begun of mothers helping newly diagnosed women prevent transmission of the HIV virus to their unborn babies. The weakest people in society – women with an HIV diagnosis – had shown it was possible for them to get together to change healthcare.

Mothers2Mothers began when Mitch Besser, a Harvard-educated obstetrician and gynaecologist, arrived in South Africa at the turn of the millennium. Aids was ravaging the country. In the clinics where he had worked in the California, there was no mother-to-baby transmission of HIV. In South Africa, he says, it was like going back 10 years, to before the development of anti-retroviral drugs, when Aids was a death sentence and a pregnant woman with HIV was highly likely to give birth to an HIV positive baby.

Even after the drugs became available in South Africa, not long after his arrival, women weren't taking them. There was still a huge stigma attached to a diagnosis, not helped by political resistance to the link between HIV and Aids and the sanctioned promotion of quack remedies like garlic and lemon juice. For women to return to the clinic and get their drugs would have involved disclosing their status to their families. It was still too humiliating for them and the doctors were unable to persuade them that it was the lesser evil. Most of the medical staff didn't even speak the language of the women they were treating. They certainly

didn't have much cultural credibility.

Women frequently discovered they were HIV positive at the same time their pregnancy was confirmed. For many, like Dorcas Inyele, it was the first time they had been tested. A shortage of medical staff meant there was little time to explain the drug regime or how to prevent transmission to their newborn infants by the way they cared for them. A woman who might be vomiting with the shock of the diagnosis needed time, sensitive counselling, help, all things that the hard-pressed medical staff were unable to give. The hospital was not designed to manage such complicated psychosocial issues: newly-diagnosed women needed differing levels of support and education and to be dealt with humanly rather than medically. 'They needed help on their terms, not ours.'

Mitch Besser and his staff were, he says wryly, 'one good idea away from being overwhelmed.' But weakness can work in favour of innovation, forcing people to take a different perspective. The system was patently failing the patients: there weren't enough nurses to cope with the demand and there certainly weren't enough doctors. Even if there had been, they probably wouldn't have had much impact, because of the cultural barriers. Most of the doctors didn't even speak the same languages as the patients.

Besser happened to see a mother who was already taking anti-retroviral drugs talking to a newly-diagnosed woman. He realised that this held the seeds of a solution. He re-framed



'I speak about my HIV status in public. And it's a very very very happy thing to have a [HIV]negative baby.'

DORCAS INVELE Mothers2Mothers (South Africa)

the problem not as a medical, but a social issue. Patients were the resource who could reach other patients. They could be providers of medical care. ‘They had greater credibility, they were of the culture, they spoke the language – they were everything I’m not.’

He mobilised HIV positive women who had successfully avoided transmitting the virus to their babies. These mentor mothers who were paid a small stipend to work with the newly pregnant women by encouraging them to disclose their status to their families, sticking with them in the aftermath (plenty were in abusive relationships or had partners whose instinct was to run away, so coming to terms with diagnosis often threw up further problems) and showing them how to feed their babies in the first months after birth. The tacit knowledge of mothers (in particular, about how to live with HIV) became the crucial factor in delivering healthcare.

Mothers2Mothers faced plenty of resistance from the authorities – ‘I learnt to ask for forgiveness, not permission,’ Mitch says – and from the medical establishment, which was ‘dismissive of anything that couldn’t be proved by randomised clinical trials.’ But he persisted in his belief that mothers were the key. Mothers2Mothers works on a hub-and-spoke model; it’s not prescriptive. ‘We don’t teach the mentor mothers how to care. They’re innovating every day in how to see women, how to talk to them. What we do is give them capacity.’ It is a system of mutual self-help, beset by none of the resource issues that bedevilled Mitch Besser in his clinic, because it’s capable of scaling to meet need cheaply and flexibly. The mentor mothers can adapt the model to their own circumstances and those of the new mothers.

The idea for Mothers2Mothers depends crucially on mobilising mothers; it is they who make the difference between a bright idea in the mind of a doctor and a real-world innovation. When Dorcas Inyele got her diagnosis, Mothers2Mothers was already in Kisumu. She was put in touch with mentor mothers, who encouraged and helped her disclose her status to her partner, so that she could return openly to the clinic to take her antiretrovirals. The child she was expecting was her fourth. ‘My first feeling was terror that my older children would be infected. Then I thought I might die; they would have no one to look after them. I thought my partner would leave.’ The mentor mothers talked about their own experiences, ‘and that gave me hope and the courage to go home and tell my family.’

Dorcas’s older children were tested and found to be virus-free. Her fourth baby is now five years old. She took drugs through her pregnancy and doctors were able to confirm that she hadn’t passed on the virus to him when he was six months old. Her partner is HIV positive and they are still together. Healthcare is an intimate problem, affecting everyone in the family; Mothers2Mothers offers a way to respect that intimacy and work with it, harnessing empathy rather than imposing a rigid one-size-fits-all system.

A slim, composed woman, Dorcas talks quietly about the difference

‘Good care requires you to address the major problem a person is bringing to you.’

PROFESSOR JANE ANDERSON
Centre for the Study of Sexual Health
and HIV (UK)



Mothers2Mothers has made to her life. She became a mentor mother and now runs a team of eight mentor mothers in her area. She is paid for this work, which gives her status and confidence. ‘I am able to feed my family. Mothers2Mothers has improved my relationships. I speak about my HIV status in public. And it’s a very very very happy thing to have a negative baby.’ Her work is rewarding, creative, paid and generative: it spreads capacity through the community, building a network of women like her – resilient and able to deploy their caring skills widely. She sees it as an important part of her job to get men involved.

Mothers2Mothers is now at 399 sites in six countries, with thousands of mothers in the field. ‘The medicalisation of health is missing the best bits,’ Mitch Besser says – ‘social interventions, behaviour change. It’s sucking out the care.’ Mothers2Mothers shows how mothers can be mobilised to reach the parts that medicine alone cannot reach. Healthcare is about more than getting people to take drugs and Mothers2Mothers shows what an enormous impact the social aspects of healthcare can have. The medical and scientific knowledge only became effective when it combined with the power of mothers to support each other.

A fifth of all pregnant HIV positive mothers in the world are members of Mothers2Mothers. It has had an impact in the UK, where Professor **Jane Anderson**, director of the Centre for the Study of Sexual Health and HIV at Homerton University Hospital, in Hackney, East London, was impressed by what it was achieving. Universal testing at ante-natal clinics means that women here may well discover that they are HIV positive during pregnancy. ‘Women need support at that moment,’ Professor Anderson says. ‘It’s a time of shock and distress. A woman may have to go home and tell her partner or family; she may never knowingly have met anyone with HIV.’ Positively UK, the peer-to-peer HIV charity, supported by the Elton John Foundation and the Big Lottery Fund, is now working with clinicians in a programme called From Pregnancy to

Baby and Beyond, providing volunteer mentors for London's ante-natal clinics.

On Professor Anderson's own patch, in Hackney, mentoring of HIV patients has expanded beyond pregnant women to include a wider group of people with HIV (60% of whom are women). The average HIV clinical appointment is half an hour; a migrant African woman with HIV and a double buggy may well have nowhere useful to go afterwards. Social care coordinators can give out phone numbers for support agencies but a woman may be reluctant to make the calls, get on the bus, walk into an unknown building to meet people who she fears may not understand.

Homerton Hospital (again working in partnership with Positively UK, and funded through a MAC AIDS fund grant) has recruited three patients, who are paid to act as mentors. Whenever the clinic is open, one is available for patient-led care. They are role models: looking and feeling well, yet understanding the difficulties of life with HIV. 'Good care requires you to address the major problem a person is bringing to you,' Professor Anderson says, 'and the doctor may not always be the best-placed person to do that.'

It is no accident, she thinks, that this kind of relationship-led healthcare has developed in the field of HIV, which has always been somewhat on the outside. At the outset, patients knew at least as much about their condition as doctors; the developing specialism attracted innovative thinkers, who trained her generation. 'Ownership of knowledge shifted when effective drugs came along,' she says, 'but HIV has always been a more collaborative specialism than most.' Bupa has also looked at Mothers2Mothers as a model for healthcare delivery and it seems likely that as medicine becomes more personalised, something like it will be needed to make patient care truly effective.

Mass delivery systems in the developed world are under enormous strain. In England, long-term conditions affect more than 15 million people and place a significant financial strain on the NHS. Half of all GP appointments, two-thirds of all outpatient appointments and 70 per cent of inpatient bed days are for patients living with long-term conditions. One of the most promising solutions would seem to be to mobilise society's capacity to complement the knowledge of doctors and nurses. Nesta's People Powered Health programme has, accordingly, explored different methods of creating partnerships between patients, families and health care professionals to build on and harness the strengths and assets of patients and their families.

Mothers like Dorcas Inyele – marginalised, remote, with few conventional resources – are showing a future for healthcare that starts with patients and works through relationships to remind us that medicine isn't mainly a matter of chemistry but, as Jane Anderson says, 'how you live your life.'

■ ■ ■

BUILDING ON RELATIONSHIPS

Mothers2Mothers shows how mobilising mothers can make a dramatic difference to health. In Turkey, a project called Mocep – the Mother Child Education Programme – proves that mobilising mothers can make an equally dramatic difference to education.

TURKEY is typical of developing countries in providing little pre-school education. Only around 5% of children, inevitably from the most affluent families, have access to nursery schools; this hits the most stressed households hardest, because a growing body of research shows that 95% of cognitive development takes place in the first six years of life. In Turkey, 90% of children under the age of six are cared for 24 hours a day by their mothers; **Mocep** is based on the assumption that the greatest educational resource a pre-school child has is his or her mother.

Mocep brings together 20 to 25 mothers once a week for about three hours. The first half of the session is a guided group discussion on an aspect of parenting – accident prevention, say, or conflict resolution. The second half involves the participating mothers going through a curriculum of worksheets, using role-play to practise how to teach. Then they take home the worksheets and spend 20 minutes a day working with their children on numbers, series, shapes, comprehension and fine motor skills.

Like Tostan in Senegal, Mocep encourages mothers to think about their relationships in the round, through a prism of rights. Group discussions touch on child protection, domestic violence, gender equality and respecting

‘For us, the most important aspect is the mothers’ engagement.’

AYLA GOLKSEL Mocep (*Turkey*)



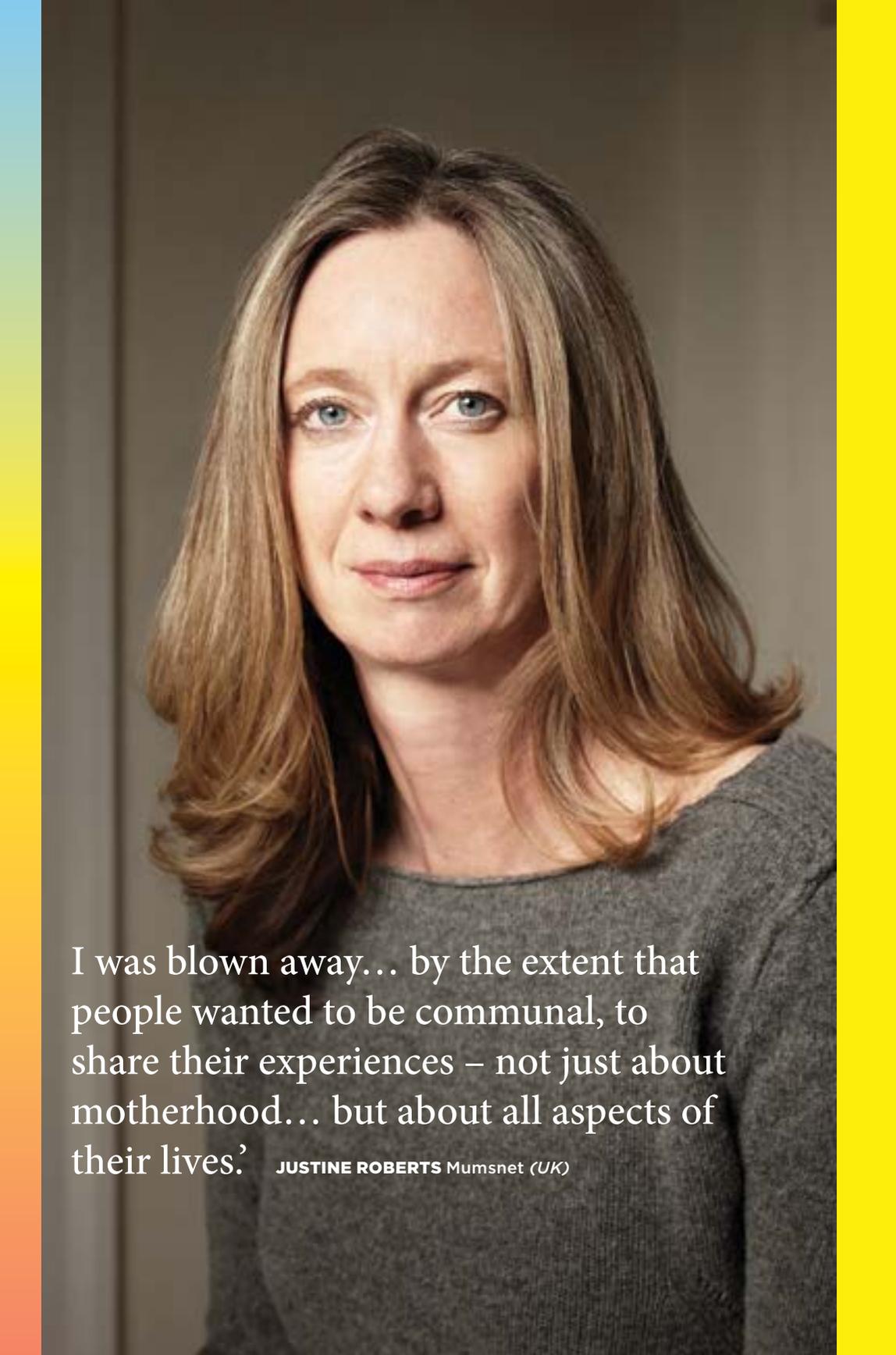
diversity as well as more obvious aspects of parenting. ‘For us, the most important aspect is the mothers’ engagement,’ says **Ayla Golkseel**, who has run the programme since it started in 1993. ‘The sessions are run as group discussions, rather than lectures, and there is a lot of learning and sharing between the mothers. We are a social country but for a lot of our mothers, who may have moved to the city recently, the opportunity to leave their close neighbourhood and discuss their experiences is novel.’ The course is free; mothers want to join because it offers social connections and because they want to help their children.

The results are impressive. Studies show that children who have been through the Mocep course arrive at school with better levels of cognitive development, concentration and self-confidence. They are organised, more sociable and show a greater understanding of other people. Their mothers have prepared them not only cognitively, but socially. Mothers discuss parenting as part of Mocep and are more likely to listen and respond to their children, less likely to scold. Even after 20 years the effects are sustained: children who have been through Mocep are more likely to stay on at school beyond the compulsory age and more likely to go to university.²¹

From the start, Mocep was adept at forming partnerships, not least with the Ministry of Education, using its premises and some of its teachers. The programme has proved so successful that the government has now taken it on in its entirety. A small investment (US\$15 per family) in mothers has been shown to have a huge multiplier effect. One Mocep facilitator can work with 25 mothers, helping them to help each other and diffuse their shared learning back into the community. This is a distributed system that begins with some core information – the curriculum, the worksheets – and allows mothers to develop and spread it through their own relationships.

Mocep has spread to 13 other countries, including the UK, where a clinical psychologist, Sheila Levi, has been running a pilot programme in Enfield. Levi, whose background is Turkish, noted that Turkish-speaking children are disproportionately referred to special schools, diagnosed with ADHD, and accident-prone. This led her to conclude that ‘something social and not just educational was going on.’

Mocep sees mothers not as passive consumers of educational services but as co-producers; like Mothers2Mothers it spreads like rhizomes through the community, rooting services in the places where they are needed and involving users in delivering them much more effectively. Mocep, like Saúde Criança, shows that an investment in mothers is not an investment in an economically unproductive activity; that, as Marilyn Waring and others have argued, motherhood delivers real and distinctive economic benefits.²² Similar principles to Mocep’s underlie a growing number of attempts to redesign public services in the UK. Nesta’s Transforming Early Years project, for example, supported schemes in Bradford, Corby, Knowsley, Barking and

A portrait of a woman with long, wavy brown hair and blue eyes, wearing a grey top. The background is a soft, out-of-focus grey. The image is framed by a vertical rainbow gradient bar on the left and a solid yellow bar on the right.

I was blown away... by the extent that people wanted to be communal, to share their experiences – not just about motherhood... but about all aspects of their lives.’

JUSTINE ROBERTS Mumsnet (UK)

Dagenham, West Basildon and Reading, all of which used parent volunteers to engage hard-to-reach families, encouraging families to take control of service design and delivery.²³

Celia Suppiah was responsible for the West Basildon project and is a passionate believer in the ability of mothers to reach parts that nurses and doctors can't reach. Her **Parents 1st** organisation employs mentor mothers to help newly pregnant women to access antenatal care; communicate with professionals; lead healthier lifestyles; have a positive birth experience; breastfeed; and care effectively for themselves and their babies.

A midwife and community health nurse for more than 30 years, Suppiah started Parents 1st in response to her feeling that formal medical care can sometimes seem to be more interested in its own systems than in the specific needs of the people who are using it. Patients can experience it as soulless and mechanistic, judgemental and lacking in empathy. A recent evaluation of the scheme found that half the pregnant women on it who had previously given birth rated the experience negatively. After support from Parents 1st they felt much better informed, less isolated and better prepared. The majority rated their delivery positively. Rates of breastfeeding improved and mothers reported feeling more confident in their parenting skills.²⁴

Parents 1st now runs an NHS-funded programme in Thurrock and Basildon, and Suppiah has plans to expand. Volunteers receive accredited training and move onto further education, enterprise and employment, meaning that both partners to the relationship benefit in a way that increases social capital and creates stronger, more cohesive communities.

If mothers are sidelined economically, they are also sidelined culturally, says **Justine Roberts**, the founder of **Mumsnet**. 'I think there's a massive prejudice about mothers and motherhood: we're seen as humourless, dull, and insular. Perhaps it's that everyone remembers their own mother telling them to pick up their socks.' Since Mumsnet started in 2000, it has set out deliberately to contribute to public debate; it's probably fair to say that its greatest achievement has been to assert motherhood as a political and cultural phenomenon, with its own take on, and demands of, power.

Roberts believes the success of Mumsnet, which has 4.5m unique visitors and 60m page views a month, lies in the fact that it allows mothers to connect and share their experience, to help each other, to spread and enhance their knowledge. 'I was blown away from the beginning by the extent that people wanted to be communal, to share their experiences – not just about motherhood, although that's a large part of it, but about all aspects of their lives.'

As more attention is paid to the domestic sphere (as opposed to assuming it's 'just there', an inevitable accompaniment to women), parents are more inclined to look openly for support, tools, skills and advice. 'Parenting is the most important thing we do, yet there's no training and we're left to sink or

swim,' Roberts says. As parenting comes to be seen as a choice, a job with its own criteria for success and has to compete for attention with other kinds of jobs, the people who do it want better information and more support. Mumsnet, a peer-to-peer online platform, offers that in an often raucous, usually subversive, occasionally outraged and frequently funny format.

The social innovation literature has a tendency to revalue what are traditionally thought of as feminine attributes and concerns – collaboration, relationships, care for others.²⁵ The analyses are rarely explicitly feminist, but they should be: both Mumsnet and Mocep, for example, leverage something that mothers have always done, namely talk to each other. Women talking to each other (not least because it's women who are doing it) is something that has traditionally been belittled as gossiping, nattering, parish pump chatter, talking over the garden fence. Its subject matter – children, husbands, friends, relationships – has been regarded as similarly trivial and irrelevant to the serious concerns of life. The domestic sphere, relationships, families all happened automatically, once the marriages and alliances were made: it took care of itself, didn't require particular expertise, was economically unproductive. Yet what we know about innovation would seem to suggest the opposite. Relationships, collaboration, networks and empathy and the ability to nurture human capital are all understood to be crucial to innovation. So perhaps women talking to each other isn't such an unimportant thing after all.

Mocep gets mothers talking to each other so they can educate each other about how best to care for their young children. Mumsnet blends that urge to talk – about your kids, about the issues associated with bringing them up, about the entire culture, in other words – with technology, vastly increasing the potential community with the result that it has been able to run highly successful campaigns endorsed by large numbers of women. Mumsnet's We Believe You campaign, supporting victims of rape and sexual assault, allowed many people to speak for the first time (under conditions both of anonymity and support) about their experiences, according to Roberts. The platform's This Is My Child campaign brought together the parents of disabled children from across the country. Its informal and open-ended way of talking to others was liberating for some parents; it allowed them to say things that in other situations (to statutory authorities, even to their families) were sometimes unsayable.

Many of the issues that are most pressing for governments around the world – education, health and care – are ones that mothers deal with on a day-to-day basis. There is evidence that where mothers can be helped to be collaborators in solutions, they are very effective. It is not surprising that, increasingly, businesses are recognising the power of mothers to mobilise for social impact. Since 2008, Proctor & Gamble has involved consumers in fighting maternal and newborn tetanus (MNT) by contributing a portion of the sale of every pack of Pampers nappies during the fourth quarter of the year towards vaccines.²⁶

The initiative began with a pilot in Western Europe, including in the UK, then rolled out worldwide. The TrendSight Group, which monitors campaigns on the basis of how well they resonate with American women, reported that it ‘recognizes our bond with babies as universal and can cut across cultures and consumerism’ and ‘appeals to our need to band together as women for the greater good of our families and the world.’ PNG and UNICEF have helped eliminate MNT in eight of the world’s poorest countries and continues to work with the 130 million women and their babies still at risk of the disease.²⁷



OLD AND NEW

Innovation is sometimes assumed to be all about the shock of the new – scientific breakthroughs, technological leaps. But it would be more accurately defined as rearranging the resources we have to get the most out of them. Basic human needs remain remarkably similar over time, although the ways in which we meet them evolve in conjunction with the societies around them.

THE TWENTIETH century post-war Western economy was built by giant automobile, oil, chemical and consumer-durable manufacturers because they were the organisations best suited to exploiting the availability of low-cost oil and energy-intensive materials. At a time when the internet is disrupting ideas about who we are and the possibilities on offer to us, we should see a plethora of innovations primed to take advantage of new kinds of networks and new senses of ourselves as social and sharing and networked by tech.

That doesn't mean everything will be new. Much of innovation is about re-combining, reviving and re-inventing; about old ideas in new settings or the blending of old and new ingredients to create better outcomes. Bethlehem Tilahun Alemu has brought together a traditional Ethiopian way of making shoes with the internet in way that blends African manufacture with fashion, the frugality of using recycled materials with a dynamic business, local production with worldwide sales, tradition with innovation.

Bethlehem Tilahun Alemu grew up in an impoverished district of Addis



‘I want people to understand that it is possible to be a local person in Ethiopia and also be globally successful. You don’t have to go West.’

BETHLEHEM TILAHUN ALEMU soleRebels (*Ethiopia*)

Ababa, the daughter of a cook and an electrician. She helped her mother spin cotton with an ‘inzert’, a traditional spindle that has been used in Ethiopia for centuries, and watched weavers hand-loom thread to be spun into scarves, shawls and blankets. ‘I knew growing up that there were many talented people in our part of Addis, but many of them couldn’t get any kind of job. They were excluded by poverty, stigma and marginalization. That struck me as an immense tragedy, but also as an immense opportunity. We have an abundance of natural resources in Ethiopia – everything from free-range leathers to organic cottons, jute and Abyssian hemp. I knew if we could leverage all this in the right way, the response from the market would be incredible.’

She chose footwear. The selate/barabasso, a shoe whose sole is made from old tyres, has been a staple of Ethiopian life for decades. The internet has not – but, together, they have proved to be an irresistible combination. Tilahun Alemu, a mother of three, has created the first global footwear brand from a developing nation from a small-scale workshop on her grandmother’s land, employing five artisans. She paid fair wages, used locally-sourced materials such as organic, hand-spun cotton; prioritised design; and set very high standards of customer service (she still answers customer emails herself). Her company, **soleRebels**, now employs hundreds of people, expects to turn over \$6m of online business in the coming year and has opened 11 stand-alone branded stores around the world, including in Taiwan, Japan, Singapore Vienna and Barcelona. She has plans for 50 more, mainly in Europe and the Far East, in the next three years. The fusion of Ethiopian resources and traditions with design, fashion, clever branding and global sales possibilities has created something entirely new: an African fashion brand with global reach, run by a young mother.

‘Innovation means substantively improving what was before, so innovation can and must be applied to areas like artisan crafting,’ Tilahun Alemu says. ‘For us, that has meant allowing our artisans to imagine and innovate on the job – so, for example, we have developed new thread types and a new weaving technique that has given us a more breathable and absorbent fabric.’

Powerful innovations change not only behaviour but also the way people think. From the very start of her business in 2005, Tilahun Alemu was determined to counter negative ideas of Ethiopia. She grew up in a country that was seen by the rest of the world as a passive recipient of aid, a view that she feels did little for the confidence or entrepreneurialism of its people, and is sceptical of the potential of aid to create sustainable change. ‘Real investment, though, does change the picture. We have created jobs and a world-class brand while empowering our community and country and presenting a galvanized, dynamic face of African creativity to the global market. We are shifting the discourse on African development from one of poverty alleviation orchestrated by external actors to one about prosperity creation, driven by local Africans maximising their talents and resources.’

She is keen to point out that she wasn’t educated in the West and has never

lived anywhere but Addis Ababa. ‘I want people to understand that it is possible to be a local person in Ethiopia and also be globally successful. You don’t have to go West.’ Her view was that ceding raw materials as commodities will always be a mug’s game; she has abducted the high-margin manufacture of finished branded goods from the West and relocated it in Ethiopia.

The combination of traditional artisanal techniques and local materials, a strong story that emphasizes the company’s environmental strengths and the global reach offered by technology has led to a slew of awards and recognition: Tilahun Alemu has spoken at the Clinton Global Initiative, been named the Young Global Leader of 2011 at the World Economic Forum in Davos and is an almost constant presence of lists of top female entrepreneurs and women-to-watch.

In a workshop in Shoreditch, **Alice Taylor** is also combining something as old as human culture – in her case not shoes but dolls – with networked technology to create a new paradigm of design and manufacturing. The lucrative toy industry is currently dominated by a handful of giant companies, led by Mattel, Lego and Hasbro. A doll – say, the current bestselling Monster High figures from Mattel – will typically take four years to get from concept to shelf. Millions will be spent on marketing and buying retail shelf space. Dolls are not a promising market for a startup.

There is one area of innovation in toys, if you can call them that: gamers create avatars all the time. Yet the toy industry remains divided between offline and online. This was brought home forcibly to Taylor when, as head of digital media for teens and tweens at Channel 4 she found herself at a conference in New York, in a hotel that was simultaneously hosting the New York Toy Fair. ‘I had one of those moments: the digital stuff was all in the basement.’

The two industries weren’t just physically apart but conceptually: she recalls a toy fair delegate asking Michael Acton-Smith of Mind Candy, the company behind the phenomenally popular Moshi Monsters, if he wouldn’t rather that children were playing outside with a hoop and stick? Acton-Smith pointed out that when they were outside, children would very often have a screen in their pocket, just as when they were inside, they might well be carrying around a toy.

Alice Taylor started thinking about whether she could bridge the distinction between children’s online and offline worlds. She set up **Makielab** in March 2011 to devise online games whose avatars could be printed on 3D printers as physical toys, with customisable features that could be shaped or sized into millions of individual combinations. The maker movement driven by 3D printing was beginning to suggest, as Chris Anderson has suggested in *Makers: The New Industrial Revolution*, that the distinction between ‘atoms’ and ‘bits’ – or between software and everything else – could be eroded.

Anderson argues that the lesson we have learnt from the web about the power of network effects – that if you connect people and ideas, they grow – is now extending into the world of physical objects. Digital desktop tools now

‘We expect mistakes and we want mistakes. There is no startup that doesn’t... We call everything we do experiments.’

ALICE TAYLOR MakieLab (UK)



exist for pretty much anyone with the right software to create designs and prototype them. A cultural norm of sharing designs and the use of common design file standards for mass and niche manufacturing means that anyone can send designs to be made on a commercial scale by manufacturing services. These developments open up possibilities that we are only beginning to glimpse. Consumers will also become producers, with opportunities to customise designs for personal use and to design our own objects, which we will then be able to manufacture on desktop machines or send off to be made commercially.

Alice Taylor’s idea is that as households increasingly get their own 3D printers, children will be able to print off their own avatar dolls. In the meantime, dolls to a personal design can be commercially printed almost overnight. As in the case of soleRebels, online commerce allows MakieLab to respond to customers’ orders, rather than having to manufacture before sales are secure.

The online, free-to-play game that is designed to market, support and create a community around the avatars is still in development. Even without it, by March 2014 more than 1m Makies, as the individual dolls are called, had been created and the Makies Doll Factory app had been downloaded 270,000 times. The resource-management game that follows will allow players to grow their own materials (sheep for wool, fields for cotton), which can then be harvested, spun, designed, dyed or printed and ordered as a cloth kit. Part of the impetus for the Makies is that they should be the antithesis of Barbie. Taylor has a daughter and was determined to make a doll with a normal body mass index, one that wasn’t ‘freaky or anorexic.’ There is also a boy doll, because when her daughter started playing with dolls she couldn’t understand why they were all female. ‘She wanted to know “where’s the daddy doll?”’

In fact, to call Makies dolls is slightly misleading: they don’t look anything like the vinyl dolls run off in their millions in manufacturing plants China.

It would be more accurate to call them physical versions of avatars, although that would be a bit of a mouthful and not calling them dolls creates enormous problems with SEO (search engine optimisation). Besides, Taylor was always determined that MakieLab should be a toy company (the dolls meet rigorous toy safety standards) and her ambitions are in line with that: she cites Lego as a model, on the grounds that, like the Danish bricks, Makies offer almost limitless for combination, creativity and customisation.

It remains to be seen whether MakieLab can grow to Lego-like proportions, but it is the only company manufacturing 3D-printed dolls at the moment and the possibilities for customisation are very enticing: a Makie can accommodate LEDs, RFID, batteries, voicechips and Bluetooth, so can be made to walk, talk and light up, which might, incidentally, help to get girls more interested in technology.

In her bid to erode the distinction between consumer and producer and between online and offline, Alice Taylor is at the leading edge. She would be the first to say that MakieLab has made errors and taken wrong turnings. 'We expect mistakes and we want mistakes. There is no startup that doesn't. Last year we were iterating the home page based on traffic until we realised we were iterating for adults in middle America. We call everything we do experiments.'

Motherhood, of course, is one long experiment: it is often not clear what is the right thing to do or how best to respond. Mothers depend on instinct, ethics, custom and love, all of them amorphous and unsusceptible to being administered in scientific quantities. Failure to hit the perfect combination is inevitable: for mothers, doing the right thing often involves picking yourself up, dusting yourself off, and starting all over again from a slightly different place – the kind of pivoting that is so essential to successful startups. Motherhood requires a certain abnegation of ego. Perhaps it's not too fanciful to suggest that this makes a very good starting point for entrepreneurs.

Mumsnet began as a product review site, a kind of Trip Advisor for baby buggies, changing mats and car seats. Justine Roberts recalls that the software for forums cost another \$50 on the build, 'so we thought "let's do it"'. The talk boards were there more or less by accident but Roberts was smart enough to see that that was where the real business opportunity lay. She looked for the positive. It didn't bother her that the original idea for Mumsnet was only moderately successful; she focused on the area for growth.

'Fail fast' is the innovator's mantra, because the sooner failures can be identified in the innovation cycle, the quicker they can be fixed. **Sofia Fenichell** launched a video curation platform in 2013 and decided after four weeks that she wasn't in the right business. Her initial idea had been to curate video content for children. 'I believed 60-70% of internet traffic would be video within a few years and I didn't like what I was seeing for kids – my app would allow them to find suitable content.' Unfortunately, no one could agree on what that was. There is no global definition for what is age-appropriate and even the experts (perhaps

especially the experts) were at loggerheads.

Instead, she launched an app that allowed YouTube users to make playlists – a similar idea, although not targeted at children. Rockpack, which is used mainly by 18-25 year-olds to curate music videos, has been an Apple featured app four times, was Wired startup of the week and has been written up in the New York Times. Given how many apps launch every week, this was remarkable success. But it wasn't quite the impact that Fenichell had had in mind. 'I realised there was a bigger market for high-quality lifestyle content. We need platforms that enable discovery and positive network effects around quality content.' She built her Wonder PL (for Wonder Place) on the back of the Rockpack engine to promote the internet of food, health, parenting, finance, culture and technology – not solely targeted at, but with clear appeal to women.

Fenichell describes Wonder PL as the Whole Foods of video content – Space NK and Daylesford are among the first content providers – believing that YouTube is too broad a platform to enable niche content providers to be heard or leverage their content through advertising and commerce. It is certainly beautiful to look at and Fenichell argues that a better way of encouraging women into tech than through coding might be to emphasize the creative possibilities of the web. 'Women have a lot of untapped creative potential – so if, a generation ago, you might have wanted to work for Disney, why now wouldn't you want to work on the web?' She is backed by Universal Music, Qualcomm Ventures and former Apple executive Pascal Cagni – due, at least in part, to her ability to reimagine women's interests in a new setting and to pivot and recognise when her first idea wasn't quite there.

Professor Dean Keith Simonton of the University of California, Davis, has shown that what we think of (rightly) as creative geniuses, from Mozart to Darwin, are actually surprisingly prolific when it comes to mistakes and failures. There is some evidence that really creative people simply do more experiments.²⁸ As Thomas Edison put it, 'the real measure of success is the number of experiments that can be crowded into twenty-four hours.' Mothers may well be accepting of failure and realistic enough to keep experimenting when their first idea doesn't quite come off.

■ ■ ■

'Women have a lot of untapped creative potential'

SOPIA FENICHELL Rockpack (UK)



MOTHERS AS INFLUENCERS

When Dr Sue Black was thinking about how to make the UK more tech-savvy she quickly came to the conclusion that the answer lay with mothers. ‘I thought, “who are the real influencers?” And then I realised if we can get our mums more tech-savvy, we can get our families turned on to tech, and then communities and then the whole of the UK.’

MOTHERS2MOTHERS and Mocep demonstrate that, in the developing world, the key to effecting significant change in health and education can often lie in mobilising mothers. Could the same be true in cutting-edge industry? As a computer science academic at University College London, Sue Black is concerned about the lack of girls taking up computer science but also, more generally, about the failure of the UK to harness an undoubted talent for creativity and innovation to lead the world in computing. There is, she believes, a cultural bias against STEM subjects and computing in particular (we are back to that trope of boys in hoodies). Enthusing children at school is of limited value, she believes, if the message they get at home is that computer science is the province of a certain kind of, probably male, person or that you have to be some kind of genius, quite possibly on the autistic spectrum, to fit in.

Sue Black has reason to believe that computing can save the economy, because it saved her. At the age of 23 she was divorced, with a three year-old

daughter and twin one year-old boys, living on a council estate. She had no qualifications. She decided her future, and her family's, depended on getting an education and took a maths-based access course at night school, which allowed her to be accepted for a computer science degree at South Bank University. She took an extra year to complete the course (she missed a lot of afternoons, picking up children from nursery and school) but then she was invited to stay on for a PhD. She has since had a 20-year career in academic computing.

'Education and tech changed my life. It took me and my family out of poverty. And the tech industry is a huge opportunity – worth £121bn. But when you tell people you work in tech they say, "you don't look like a boffin." People see tech as "computer says no", or as money wasted on government IT schemes, or they talk about parties organised on Facebook where the house has been trashed.'

Sue Black set up an organisation, **Savvify**, to campaign for national tech-savviness as the key to innovation, economic growth and wellbeing. Once she recognised that mums were the key influencers, Savvify spawned #techmums, a pilot in Tower Hamlets in 2013, training 20 mothers for two hours a week over six weeks. They covered social media, web and app design, online security and a bit of Python programming on a Raspberry Pi. One of the first cohort got a job as a direct result of the programme; others have been able to develop the jobs they already had thanks to enhanced tech skills.²⁹ (One woman who runs a school uniform business couldn't previously send attachments with emails). The aim, though, is less training than a shift in attitudes. 'They were all scared of tech when they started, to the extent in some cases of not wanting to touch the keyboard. They don't feel afraid any more.' The school's head teacher, Nicholas Soar, says the impact has been visible on their children. The aim is now to run further courses and, eventually, to roll out #techmums courses across the country. In February 2014, Martha Lane-Fox became the organisation's patron.

Other organisations have sought to leverage the power of mothers as influencers. From the start of Mumsnet, there was a deliberate effort to give voice to a group (if you can call something the size of Britain's mothers a group) that had previously felt somewhat marginalized by political debate. The intelligence of some of the comment on Mumsnet, combined in time with sheer force of numbers, made a powerful case that this was a point of view that should be listened to – not because mumsnetters were bright women in spite of being mothers, but precisely *because* they were mothers. The fact that the founders had worked in newspapers and television undoubtedly helped them to put what they had learned in traditional media into practice mobilising mothers' views. In the last general election, all three party leaders did live webchats on Mumsnet and an election campaign that doesn't take in Mumsnet now seems improbable.

In the United States, **Jennifer James** has done something similar with **Mom Bloggers for Social Good**. James began blogging in 2002, when her daughters were small, and a couple of years later started the Mom Bloggers Club

‘Education and tech changed my life. It took me and my family out of poverty.’

SUE BLACK Founder, Savvify (UK)



community. In the last decade, consumer brands have caught onto the influence that so-called mommy bloggers can have and there has been an increasing move to supply free products and sometimes to pay leading bloggers to mention them. (This is not far from Mumsnet’s business model, which rarely offers advertisers simple display advertising on the site, but offers up its community for product testing or other forms of buy-in and feedback, designed to engage consumers more deeply).

When Jennifer James was invited to Kenya by the One organisation, an anti-poverty NGO co-founded by Bono, she realised that blogging could also be used to sell ideas. The very fact that the One organisation thought it was worth taking leading bloggers to see their work was indicative of the power of the mommy-blogging community; Comic Relief has done the same with influential bloggers in the UK. James set up Mom Bloggers for Social Good to support the work of NGOs by disseminating their campaigns. ‘NGOs were sometimes talking to themselves,’ James says: ‘The idea of Mom Bloggers for Social Good was to get other people to do the talking for them.’

James’s community works with large NGOs like Oxfam and the Gates Foundation, surveying bloggers to find out which issues they most care about (broadly, global hunger, maternal health and newborn and child health) and sharing news from the NGOs that they can blog about, tweet and share on social media. There are currently more than 2000 bloggers signed up to the platform in 30 countries – small, in Mumsnet or Netmums terms, but all focused on the same project and, on the whole, highly connected, with networks that reach millions of people. For the NGOs, there is a tangible result – ‘they can go to Congress and say, “look how many moms are talking about this” – and for the mothers there is the sense of being part of the solution to a problem they care about.

Mom Bloggers for Social Good is just one version of a movement that is gaining ground, feeding off the question that has been posed by former White House Press



Secretary, Dee Dee Myers: ‘Why is motherhood any less of a training ground for political participation? Why is it somehow less relevant than high school football and those lessons so many men point to for their leadership experience?’

There are Democratic mom bloggers (Momocrats), Tea Party mom bloggers (Smart Girl Politics) and activist mom bloggers, such as The Motherhood, an online community started by bloggers Emily McKhann and Cooper Monroe, which coordinated a grassroots effort to get supplies to the victims of Hurricane Katrina. Kristin Rowe-Finkbeiner, the mother of a child with immune deficiency disorder, started Moms Rising with Joan Blades to promote awareness of what happens to families who suffer health shocks and don’t have a social safety net and says that its members have made more than 600,000 contacts with politicians by email and phone to call for health care reform.

In the UK, Jack Monroe’s blog *A Girl Called Jack* has not only secured Monroe, a single mother from Southend, a newspaper column and a job as spokesperson for Sainsbury’s (she gives the money to Oxfam, for which she is also an activist) but has done an enormous amount to bring the issue of food poverty to wider attention. Monroe has written about the humiliation of being referred to a food bank and the corrosive effects of poverty: ‘Poverty is the sinking feeling when your small boy finishes his one Weetabix and says: ‘More, Mummy, bread and jam please, Mummy,’ as you’re wondering whether to take



‘NGOs were sometimes talking to themselves.’ **JENNIFER JAMES** Mom Bloggers for Social Good (USA)

the TV or the guitar to the pawnshop first, and how to tell him that there is no bread or jam.’ Her online petition of December 2013 calling for a debate in the House of Commons about the rise in use of food banks achieved over 140,000 signatures and did lead to a debate.

In her book about mother-bloggers, *Mothers of Intention*, Joanne Bamberger points out that in the US, 17 % of op-ed commentaries in major newspapers are written by women. The internet offers mothers an opportunity to assert a political voice from unexpected quarters, one that has not been homogenised or filtered through spokespersons. Mothers are seizing the opportunity to be influential even if they are a 23 year-old lesbian single mother living in poverty. Some national newspaper columnists may sneer – Richard Littlejohn in the *Daily Mail* attacked Monroe for quitting her job and for thinking that the poor have any interest in kale pesto – but mothers have the potential to be a force for change and their influence is growing.

♦ ♦ ♦

CONVULSION AND GENERATION

Crisis, while it threatens to crush innovation, can also be a spur to it. Crises demand new solutions; extraordinary circumstances propel ordinary people into new roles and relationships and generate new paradigms. War is, generally speaking, the most extreme form of crisis human beings have to face.

IN BRITAIN, the First World War gave great impetus to women's suffrage. The Second World War led to the creation of the welfare state – although, as has been remarked, warfare has on the whole been better at creating social solidarity than welfare.

It was the outbreak of civil war in Somalia that changed **Hawa Abdi** from an obscure doctor, a young mother of three, running a rural clinic for women and children outside Mogadishu into a Nobel Peace Prize nominee described by *Glamour* magazine in the United States as 'equal parts Mother Teresa and Rambo'; a woman who has saved tens of thousands of lives.

When civil war broke out in Somalia in 1991, Hawa Abdi and her family started housing hospital staff and their relatives on their land on a road out of the city. As refugees began flooding away from Mogadishu, they would call in at this settlement for water, food, a place to stay. Dr Abdi didn't turn them away: people slept first in empty hospital wards and then in makeshift homes, constructed from sticks, on the land around the buildings. By the middle of the first year of the war, Hawa Abdi had 800 families, more than 4000 people,

‘Women... are leaders in our communities and have a stronger sense of self-worth.’

HAWA ABDI

Nobel Peace Prize nominee
(*Somalia*)



living on her land. So began more than two decades of running a refugee camp which at one point hosted more than 90,000 internally displaced persons. Her role, as a mother and a doctor, seemed simple to her. 'Death is a part of life in Somalia, whether it comes to us through violence, through disease, or even through childbirth. We know the danger we face, and yet, we women still plan for the future. I helped others in need, using simple solutions.'

To anyone else, Hawa Abdi's courage and resilience are breathtaking. She made no distinction in whom she treated, or how she treated them. As a result the camp was in near-permanent danger of attack by rival warlords. At night, children slept in locked rooms for fear of militia gangs who would try to come and rape them. Often there wasn't enough food. When, early on, Hawa Abdi formed an alliance with the Red Cross, her Belgian contact was shot in his food store. At another time, she was held hostage in her own hospital. Food was stolen. Her possessions were smashed. On her land is what she calls 'a shadow village' of more than 10,000 people, the ones she couldn't save and who are buried there. When she treated someone from a clan that was particularly hated in the area, boys fuelled on qat came brandishing AK47s. They demanded to run the camp and assumed they had the right to do it, because she was a woman and a mother while they were men and young. Her response was "Yes, you are a man, you have two testes, but even goats have two testes – what have you done for this society?" Talking directly to them was practically asking them to kill me, I know. But if the poor people I protected had died in front of me for no reason, I could not live anyhow.' Later, an Al-Shabab-backed businessman decided he owned part of her land, and bulldozed some of the carefully built huts, displacing 400 people all over again.

Hawa Abdi forged alliances with young men who had grown up in a lawless society and were used to doing whatever they wanted, as well as with international organisations. Like Vera Cordeiro in Brazil, she realised that it was not enough to provide medical care. Even in the extreme conditions of civil war and poverty, simply patching up bodies wasn't effective enough for her: she began a primary school, a women's education project, counselling and health outreach. She is still fizzing with ambition, despite recently having had a stroke. Now that there is relative peace in Somalia, she is making places for a farmers' market, an extension of the women's entrepreneurship programme, a high school and a vocational programme. Through all this, she has been driven by a distinctively maternal approach, which has allowed her, as a woman in a deeply patriarchal society, to assume power: 'My daughters and I emphasized values of equality, respect, and love for one another, and it is through this that we can bring up a new generation in Somalia that is united.'

Hawa Abdi has helped to change relations of power in families and in the community more widely. 'Years ago, women thought they could not speak up for themselves in their interests. They sat at the back of the room during meetings and said nothing. During the war, the women became the backbone of society.'

Photo: Pieter Hugo

‘Mothers, we are very special, very committed,’ Alarcón says. ‘Your kids are your mission. You are not any more the centre of your life. That gives you a very different perspective.’

MAR ALARCÓN Social Car (*Spain*)



The changes we have seen show that women are more active and engaged in their own well-being. They are leaders in our communities and have a stronger sense of self-worth.’

War, while it may lead eventually to all kinds of inventive behaviours, is obviously not an ideal recipe for innovation. We should not wish for too much creative destruction. The ability to spot a small convulsion, though, is a useful one for an innovator: one definition of leadership is the ability to use the smallest possible crisis to achieve the largest possible change. We are living through a major economic and cultural shift, from an industrial economy to one driven by networked technology. This is changing profoundly the way we think about collaboration; about the way things are and should be produced. As Alice Taylor’s MakieLab shows, networked technology has the power to blur the boundaries between producers and consumers: Makies harness the creativity of children to design their own dolls, clothes and lifestyles. This better understanding of the power of collaborative effort to change the world seeps into our offline lives as well: Mothers2Mothers, as we have seen, disperses responsibility for healthcare through the community, taking the culture of the internet into African cities, towns and villages. In the 20th century the expert was king; in the early 21st century, there is an assumption that the user often knows best and in more detail, that complex problems aren’t best solved by centralisation, but by distributing

complexity to the margins. It is a radically different mindset.

Mar Alarcón, like many mother-innovators, wanted to do something that would reflect her values – specifically, she wanted to start a business that would have positive environmental benefits and optimise resources. She thought about a car sharing service with a fleet of vehicles, until it occurred to her that her main relationship with her own car was to pay 150 euros a month to park it.

A week before she was due to buy her vehicles, Alarcón decided not to go ahead. Instead, she set up **Social Car**, a peer-to-peer car sharing service. Rather than introduce yet more cars into already-crowded cities, she asked why not make use of the 30 million cars that were already in Spain, many of them sitting idle much of the time?

Alarcón initially faced scepticism about whether owners would be prepared to rent their cars to strangers – but it turned out that they were, just as homeowners are prepared to share their spare rooms through Airbnb and entrepreneurs are prepared to share their overheads in co-working spaces. Social car is scarcely imaginable in a pre-internet age; customers can get a very clear idea of what they will be renting online and whether the price looks right. Not only does it enable people to have exactly the right kind of car for the purpose – roomy and smooth for a long journey or small and nippy for a day hopping around town – but also for the right amount of time (two days on average, but anything from a couple of hours to several months).

Alarcón organised a bespoke insurance product that covered rentals to a driver of any age without financial penalties. So far, 30,000 people have signed up to Social Car and there have been around 10,000 transactions. ‘Mothers, we are very special, very committed,’ Alarcón says. ‘Your kids are your mission. You are not any more the centre of your life. That gives you a very different perspective.’

Bart Nooteboom has suggested that some of the most important innovation involves embedding new forms of behaviour, which also, usually, involves seeing things differently.³⁰ Increasingly, Alarcón believes, Spaniards see their cars not as positional goods but as an asset they can rent. (In this, Social Car has been given a boost by recession: families have welcomed the opportunity to earn extra money at a difficult time). Car companies, Alarcón argues, are now quite a long way behind users’ behaviour: ‘They talk about sustainability but never question whether you actually need a car. They still see cars as a marker of status.’ Consumers, in her view, are more sophisticated and see the identity conferred by ownership of a certain kind of car as fleeting, even meretricious; they would prefer to have the right kind of car for the right outing. It’s possible that Social Car even results in better driving; renters meet the car’s owner and Alarcón compares it to borrowing a friend’s dress to go to a wedding. ‘You’re driving Pepe’s car or Maria’s car. You are more careful.’

Mamabake, an Australian movement for communal cooking, brings the sharing economy into the home. Mothers get together to cook food in large quantities and share it out between them, providing meals to freeze for the week. **Michelle Shearer**, a mother of two from New South Wales, had the idea

‘Working domestically
together seemed like
a really big thing...
we haven’t done that
for generations.’

MICHELLE SHEARER
Mamabake (Australia)



when a friend brought round a lasagne she had cooked but couldn't eat herself. Michelle realised she could go surfing rather than make dinner for her family. It seemed to her that perhaps she was on to something, so she organised a group of mothers to cook in larger quantities than they needed and share out the results. Like Bethlehem Tilahun Alemu she went backwards to go forwards, recovering and older way of doing things in a new context. 'Working domestically together seemed like a really big thing,' Shearer says, 'we haven't done that for generations.'

The group got bigger, and split; other people heard about it and set up their own versions. There are now more than 100 Mamabake groups all over Australia (where Shearer says it has become a verb: 'do you Mamabake?') with offshoots in Germany, Portugal, Mozambique and New York. The Mamabake Facebook page has more than 20,000 likes. Cooking together offers women a joint project, an opportunity to build relationships and to help each other practically: it is a new form of communal caring, suited to contemporary lives. Shearer believes the capacity to do this depends crucially on motherhood; Mamabake experimented with a Papabake Facebook page: it got 18 likes.

It is not surprising, given the blurring of distinctions between production and consumption, that businesses are increasingly turning to mothers – usually a family's lead consumer – to be more involved in the creation of products and services. A few years ago, Kimberly-Clark's Stephen Paljieg realised that mothers were a crucial source of innovation. 'There's a massive discrepancy between where innovation is happening and where money is going,' he says, adding that, in the US, where Kimberly-Clark's Huggies are the leading nappy brand, women are starting businesses at twice the rate of men. Kimberly-Clark, looking to innovate in the field of baby and childcare, needed 'to find a way to innovate with them. I realised that the only way to do it right was to go out directly to the innovators, to the moms themselves.'³¹

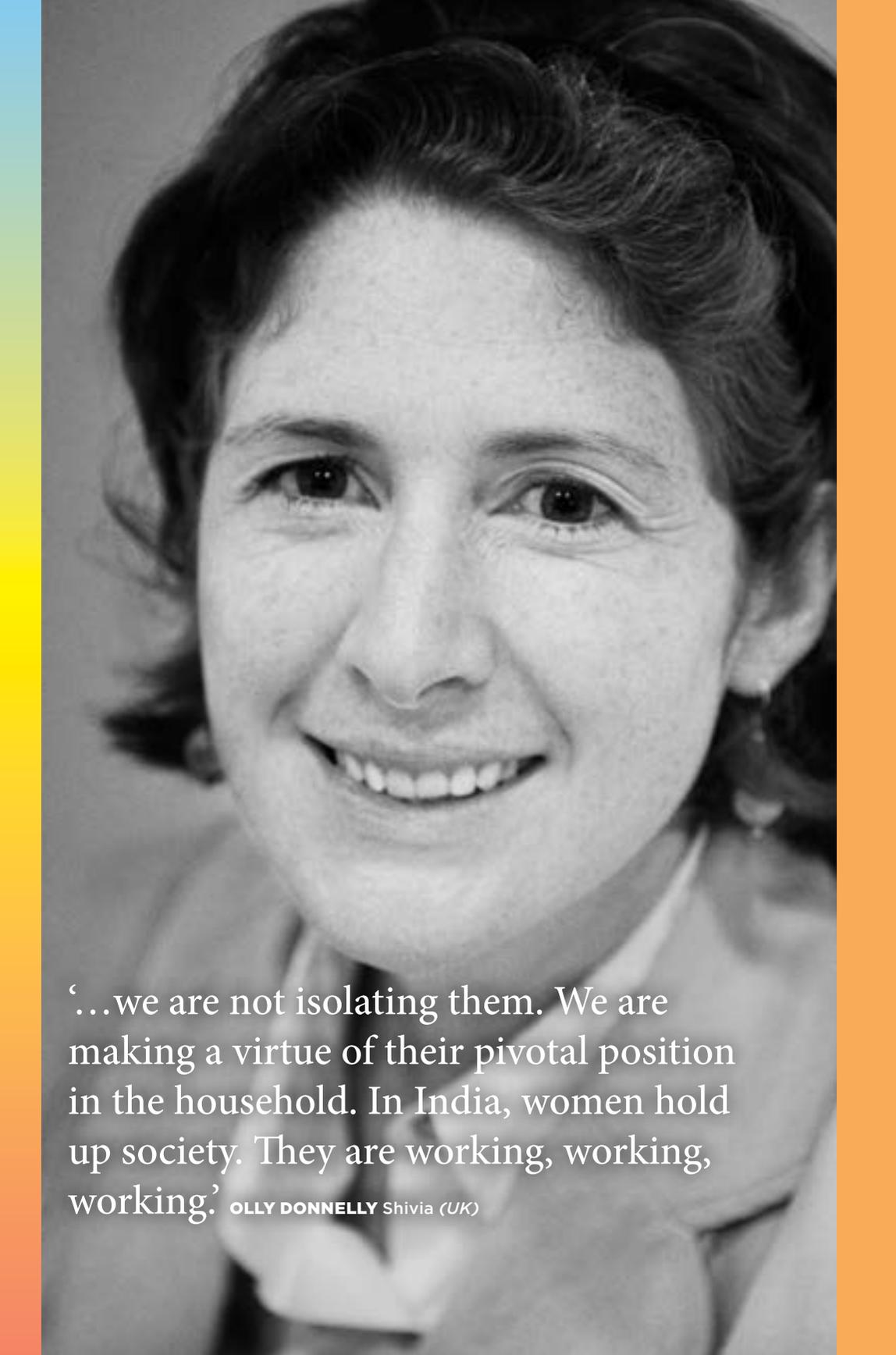
Kimberly-Clark set up Huggies Mom Inspired, a grant programme for product ideas inspired by motherhood. In the five years since the scheme launched, it has awarded more than half a million dollars. In return, the mother entrepreneurs agree that if they decide to sell or take on investors, they will offer Kimberly-Clark first refusal. The products supported by the scheme have included a new feeding cup that children don't have to turn upside down; the Buzzy Pain Relief bee that numbs skin with vibration and cold before an injection; a clothing line with magnetic fasteners to make baby changing easier, which is now carried in 15 countries; and acupuncture tools for relieving morning sickness, which is sold by 13,000 retailers. According to Paljieg, most of the businesses are started because mothers have an idea that will help 'the mom next door and down the street.' Mentoring from Kimberly-Clark's employees provides expertise in, for example, pack design, and has the added benefit, Paljieg believes, of getting staff to think from the perspective of an entrepreneur.



MICROCREDIT AND BEYOND

The impact of microcredit schemes on empowering women, especially mothers, to lift their families out of poverty has been well documented. Since Muhammad Yunus founded Grameen Bank in Bangladesh in 1976, the bank has lent \$9.87bn and recovered \$8.76bn; 97% of its more than 8 million borrowers are women. Muhammad Yunus's insight was that by investing in mothers, you could invest in whole families and communities.

THE MODEL depended on groups of borrowers supporting each other not to default, so a ripple effect, a creation of social capital, was built in from the start. The microcredit model has since spread to more than 40 countries around the world and spawned many other microfinance products. Microfinance undoubtedly reaches parts other forms of banking can't reach and has changed lives in Bangladesh and elsewhere. That said, the successors to Grameen have not been without their critics. As capital has flowed into microfinance from commercial banks, venture firms and private equity, a large number of for-



‘...we are not isolating them. We are making a virtue of their pivotal position in the household. In India, women hold up society. They are working, working, working.’ **OLLY DONNELLY** Shivia (UK)

profit firms have been accused of unrestrained selling of cheap products to the poor. Among others, Yoolim Lee and Ruth David have written about how the Grameen model of microfinance has been distorted by venture capital and those who are in the business to make profits.³² In at least two celebrated cases, providers of microcredit have made huge fortunes for their shareholders at the expense of their clients.³³ And Paul Polak and Mal Warwick argue in a recent book that the overwhelming majority of microcredit loans are not used for business development but for consumption; they conclude that ‘microfinance has had no discernible overall impact on poverty.’³⁴

Olly Donnelly worked in microfinance for the World Bank and is well aware of its strengths and its weaknesses. She grew up in England but has a strong relationship with India: her father lived there for the first 17 years of his life and her grandfather helped Mother Teresa set up her first refuge in Kolkata. Olly worked at a home for abused and abandoned children in the city in her gap year.

Her criticism of microfinance is that commercial lenders have increasingly encouraged borrowers to become part of two, three or four different groups, weakening the social collateral that was crucial to repayment. Microcredit is great, she believes, as long as the lender isn’t looking for an exit route – because as soon as a borrower thinks there’s no prospect of further loans, she is likely to default. Without the social pressure to repay on behalf of the close-knit and supportive group and without prospect of further funding, default becomes the rational option. Microfinance, in Donnelly’s view, works in its pure form and particularly in certain kinds of community but is not a universal panacea. One major issue, in her experience, is that men don’t like it; there are indications that domestic abuse goes up when very poor women have money men want.

After the World Bank, Donnelly joined Accenture Strategy and, in her spare time and with their blessing, set up an NGO, **Shivia**, which sells the basic ingredients for poultry farming to women living in poverty in West Bengal. The starter packs contain 10 one day-old chicks, plus vaccinations and initial feed. Shivia sells these to women (mainly aged 30 to 50) for 450 rupees, around £5. The cost to Shivia is £10. Shivia lends product, rather than money; in contrast to microcredit, Donnelly argues, the scheme is market-driven, rather than supply-driven. (There is no point in lending to women to weave baskets, for example, if the basket market is saturated.) Everyone in India – Hindus, Muslims, Christians – eats chicken and/or eggs. Supply to villages is limited to a couple of the very poorest families. This ‘livelihood model’, as Donnelly calls it, incurs significantly lower overheads than microfinance, which she argues is costlier to administer and presents a persistent risk of defaulting customers.

Since Shivia’s poultry programme launched in 2011, 6,000 toolkits have been distributed to over 5,000 home farmers, who have seen a 30% increase in household income year-on-year. Anyone in the family can take on the responsibility for the chickens: one mother has used the profits from the sale of

eggs to expand into jewellery, leaving her daughter and the grandmother to look after the poultry. Impact assessments show that families on the programme can now typically afford uniforms and books to send at least one child to school. Many families have been able to build a toilet and renovate their homes to make the family less exposed to the monsoon rains. Children are better fed and women empowered by earning an income.

Donnelly, who has two young children herself, relies on an au pair and her mother during the day: she says this arrangement leaves ‘not much room for error.’ Shivia’s focus is on mothers, ‘but we are not isolating them. We are making a virtue of their pivotal position in the household. In India, women hold up society. They are working, working, working.’

Ewa Wojkowska also left a global aid organisation – in her case the United Nations, where she had worked for a decade – because she was frustrated by the lack of innovation in large aid organisations. Like Olly Donnelly, she saw a way of supporting communities, mainly through mothers, in a way that went beyond microfinance. Her organisation, **Kopernik**, an Indonesia-based NGO, connects the producers of simple technology – solar-powered lights, water filters, cooking stoves – with the people who need it. Most of the technology companies are for-profit so it doesn’t make sense for them to reach the most remote communities: Kopernik focuses on the last mile, drawing on communities’ own knowledge to determine what technology they need. She combines a number of ways of paying for this: donations, crowdfunding and microbusiness.

Communities determine what technologies they need and these are bought with donations and through crowdfunding. Only then are they shipped to remote communities to be sold. Like Shivia’s poultry, the products are subsidised but priced to reflect the real local economy; again, the scheme is demand-led rather than supply-driven. In addition to this, in India, Kopernik is working with women’s groups on an ‘Avon ladies’ model: in other words, the women receive a consignment of cooking stoves or solar lights and they earn a margin on whatever they sell.

Linda Scott, DP World Chair for Entrepreneurship and Innovation at the Said Business School in Oxford, ran a three-year research project on the impact of Avon on development in South Africa and argues that it is an effective tool for empowering women in developing economies.³⁵ ‘Avon doesn’t do microcredit – it just lends against inventory and doesn’t charge interest – but it does provide the training, the product and the marketing materials. For women who are seriously impoverished or in remote areas, the materials to create your own business from scratch are just not there...the conditions of scarcity override everything. Whereas Avon is just add hot water and serve.’

This insight has significant implications for thinking both about development and investment in women more widely. Mothers have historically functioned outside of the traditional economy, because their lives have been

defined (even in the developed world until the last century,) by laws and customs that have excluded them from owning property or handling money. Scott sees this as having created an ethos of reciprocity. Mothers have always managed non-monetary resources, but their opportunities to develop beyond this have been constrained by prejudices that see them both as unproductive (and so economically irrelevant) and as a group whose concerns (though this has been more subtly articulated) are essentially trivial. Neither is actually the case, of course and, more recently, it has been recognised that investing a pound in mothers has a multiplier effect. Gender-responsive budgeting has become central to development aid, because greater gender equality has been shown to have a significant impact on economic development.³⁶ The European Commissioner for Development and Humanitarian Aid, Louis Michel, articulates this when he says: ‘Today, we know how important the role of women is to society, to health, nutrition and education of children, to economic growth and the development of a country.’³⁷ Mothers occupy a crucial intergenerational position, which means the investment reaches the wider family. Investing in mothers is also effective because the traditional way in which mothers have done business – finding their identity in something more than being economic producers and consumers – turns out to provide them with the capacity to create shared, social solutions.



SYSTEMIC INNOVATION

Search any image database for innovation and half the pictures that come up are of lightbulbs. Just as we like to think of innovators as lone heroes, we romanticise innovation as a revelatory, lightbulb moment.

IN FACT, Thomas Edison, the inventor of the lightbulb, was neither a lone inventor (he ran a large studio) nor subject to random inspirations. 'If I find ten thousand ways something won't work, I haven't failed,' he said, 'I'm not discouraged, because every wrong attempt discarded is often a step forward.'³⁸ James Dyson developed 5,126 prototypes of bagless vacuum cleaner before he arrived at the one that would sell. We tend only to hear about successes, but significant innovators tend to be relentless experimenters, leaving plenty of failures in their wake before arriving at the innovation that really works.

Joining the dots, removing an idea from one domain and trying it out in another (market gardening in the city, traditional shoes in high fashion) is a common route to innovation; and certainly, recognising how one might do that does involve a flash of insight. But the flashes don't come from nowhere. As the Nobel laureate Paul Flory explains: 'Significant inventions are not mere accidents... Happenstance usually plays a part, to be sure, but there is much more to invention than the popular notion of a bolt out of the blue. Knowledge in breadth and depth are virtual prerequisites. Unless the mind is thoroughly charged beforehand, the proverbial spark of genius, if it should manifest itself, probably will find nothing to ignite.'³⁹ Innovators are often pragmatists, willing to try things out, seeing failure simply as a way of clarifying success.

When **Ronni Kahn**, a mother of two from Sydney, started talking to people about her idea, 'a thousand people told me they'd thought of it and not done it.' The idea itself was less significant than Kahn's commitment to moving from



“There is no doubt that motherhood is one of the guiding influences for me,... the whole culture of OzHarvest exists like a family... we share a lot of the best motherly instincts.”

RONI KAHN OzHarvest (Australia)

idea to action. She had run an events-management company for 20 years and was dismayed by the amount of food that she wasted and knew that other organisations must be wasting. One in 200 Australians is homeless and 60,000 low-income working families regularly go without meals. A million children go to school without breakfast or to bed without dinner. Meanwhile, Australians throw away 3m tonnes of food – 136 kg per person – every year.

Ronni Kahn's idea was very simple: to rescue the wasted fresh food and distribute it to those who needed it. The differences between Kahn and all the other people who'd thought this was a good idea were that she wasn't afraid of failure, she was persistent – 'I only listened to people who said yes' – and she was pragmatic. In his history of pragmatism, Louis Menand writes: 'Pragmatists believed that ideas are not out there waiting to be discovered but are tools that people devise to cope with the world in which they find themselves.' Ronni Kahn started with an idea and then she got stuck in and made it happen. It helped that her idea tapped into a universal sense of unfairness – 'did your mother ever tell you to eat up because somewhere, someone is going hungry?' But it was still hard to raise money to make it happen – even though she quite quickly persuaded a major bank to sponsor her – and to find organisations that could effectively distribute or use the food. 'I thought it would take three weeks. And then once I realised it wouldn't take three weeks I decided it didn't matter if it took until the end of my life.'

It actually took a year of organising until the first vehicle left the office. In its first month of operation, November 2004, **OzHarvest** delivered 4000 meals. Today it distributes 161 tonnes of perishable food a month and the operation has spread from Sydney to Adelaide, Brisbane, Melbourne, the Gold Coast and Newcastle, with regional offshoots in smaller towns, adding up to 500,000 meals a month to 550 agencies all over Australia. The organisation uses volunteers to deliver food and is backed by corporate sponsors and individual donors.

The biggest hitch Kahn faced was that supermarkets wouldn't get involved because of legal concerns. She worked with pro bono lawyers to get the law changed so that an agency that receives food as a gift cannot sue (OzHarvest wouldn't in any case take food that isn't fit for purpose). These days OzHarvest collects from fruit and vegetable markets, supermarkets, hotels, wholesalers, farmers, stadiums, corporate events, catering companies, shopping centres, delis, restaurants, film and TV shoots and boardrooms, saving millions of kilos of perishable food a year. There is a positive environmental impact, taking into account the high levels of energy that go into producing food: it has been estimated that Oz Harvest's negative carbon footprint is equivalent to the removal of 330 cars from the road a year.

'There is no doubt that motherhood is one of the guiding influences for me,' Kahn says. 'I have two sons and one of the drivers to create OzHarvest was to create a role model, a legacy for them. What's more, the whole culture of OzHarvest exists like a family – we are non-hierarchical, we share a lot of the best motherly instincts.'

Cecilia Flores Oebanda is another mother-innovator who has created systemic change. Born in poverty in the Philippines, the young Cecilia was a child labourer, selling fish at the age of seven, dancing on tables to persuade men to buy. Her father set her up to box against boys so he could collect bets; later she got a marginally more civilised job removing the lice from a rich girl's hair. By the time she was in her teens, she had joined a group of Christian communists educating farmers about their rights. The group was outlawed by the Marcos regime and living at home became too dangerous for her: she escaped into the mountains, where she joined the revolutionary resistance, the New People's Army. There she met her husband and gave birth to her first child. She developed a reputation – a female fighter, living in the mountains – and lived for a time with a remote tribe who were widely believed to be dangerous cannibals, who protected her. When she was finally caught, she happened to be with two younger boys. One was shot in front of her; she watched the other have his throat cut. She was 21 and gave birth to her second child the following day.

Flores Oebanda spent four years in detention before being released when the Marcos regime was deposed. Together with a few people from her birthplace, an archipelago in the South called the Visayas, she set up a group to help the region which is home to many of the poorest people in the Philippines. They called themselves the **Visayun Forum**; she became in time its founding president and executive director. The Forum originally focused on the practical help of rebuilding and replanting after typhoons; but it quickly became apparent that poverty brought a host of other problems, not least among them child labour. Many children were being taken out of the region, mostly to Manila, usually to become domestic workers. The remote and impoverished community in the Visayas were particularly exposed to a problem that was endemic in the Philippines yet which – rather like female genital cutting in Senegal – was not acknowledged. There was no agreed, acceptable word for these workers: they were most commonly called *muchach*, which translates as slaves, although there were hundreds of words for them in different dialects, indicative of a lack of a common language in which to speak of what was going on.

'We started to challenge the norm that domestic workers were an untouchable issue. During that time it was very sensitive to discuss it,' Flores Oebanda says now. The Visayun Forum's campaign was called *kasambahay*, which means something like 'partners at home', and which has since become the politically correct term for domestic workers. They were, however, up against a deep-seated problem. Labour migration was a key plank of government strategy to combat poverty: around 11 million filippinos were working abroad (10% of the population) in over 200 countries, sending back remittances worth \$14billion in 2007 and \$17billion in 2009. Inside the Philippines, domestic workers were estimated by the government to number up to 2.5 million, although no one really knew for sure how many of them there were. The whole point of the problem – the reason why it was a problem – was that it was largely hidden. The majority



‘I brought up my children in prison but even so, I was lucky; I had them with me. The girls we rescue are alone and scared. They don’t have their mothers. They don’t have anyone to help them at all.’

CECILIA FLORES OEBANDA Visayun Forum (*Phillipines*)

were girl children, who were working long hours with no contracts and no days off, who were vulnerable to physical and sexual abuse.

‘The mindset was that women and girls working away was OK,’ she says. ‘When girls leave their homes to take jobs abroad or in domestic service in the Philippines, they don’t see themselves as vulnerable. They see their trafficking as an opportunity. So, often, when we try to intercept, even the victims resist: they believe that their dream is only one step away.’ Trafficked people are often recruited by those they trust: teachers, government officials, religious leaders,

aunts; tempted by the promise of a better lifestyle and escape from their parents. The reality of course is often very different: girls promised jobs in France end up somewhere else entirely, working as prostitutes. Boys offered jobs as hotel bellboys find themselves working on remote farms, locked up, told they will be killed if they try to escape. Once they are at their destinations, it is almost impossible to find them. Yet before they reach them, no crime has been committed, making intervention extremely difficult.

Flores Oebanda's core innovation came in galvanising a wide range of people around a common vision – the idea that people trafficking was not unavoidable – and mobilising them to move in at the highest points of visibility. These are the points of transit: the moments when they board ships, buses and aeroplanes. Initial studies in Manila's harbour found that practically everyone was being bribed by the traffickers not to ask questions.

Painstakingly, Flores Oebanda and her friends built up alliances – with coast guards, maritime police, porters and shipping companies. The Visayun Forum had no power to intercept traffickers, so it co-opted those who did. They set in motion an active effort to look for trafficked people, to hold them back and question them. A large part of what was innovative about all this was persuading people not to turn a blind eye. Twenty years of interventions and lobbying later, the government has institutionalised these anti-trafficking task forces. In the mean time, 15,000 victims and potential victims of forced labour have been intercepted. Some are as young as eight and the average age is between 14 and 18. The police immediately separate the victims from the traffickers and take them to half-way houses, where the Visayun Forum takes care of them and tries to track down their families. They try to convince them to file a case and, if it's possible to repatriate them, they do. If not, they can go into a shelter run by the Forum.

Flores Oebanda has changed relationships of power in the Philippines. The girls who were negligible a few decades ago are now the subject of concern and attention. She has worked at multiple levels to do so: internationally, with multilateral agencies and destination countries; nationally, with the government to change employment laws, with law enforcement agencies to intercept traffickers and with a network of NGOs, churches and civil society groups on reintegrating victims into society. Forced labour is now prohibited in the Philippines and employers must offer contracts, minimum wages and protection. That doesn't stop all the criminals: she is still encouraging victims of trafficking to bring cases against their captors. She also provides alternatives – getting children get back into school, working on education and jobs. JK Rowling has given money to buy a piece of land to build a dormitory for victims, and the Visayun Forum works with Microsoft to develop IT skills, as well as on providing vocational training. Meanwhile, Flores Oebanda maintains the effort to influence the wider culture, to change norms and beliefs. The result of all this activity is that she has been able to create systemic innovation, running like a ripple through Philippines society.

Flores Oebanda, who is widely known as ‘Nany Day’ – mother from Visayun – sees mothers as crucial to stopping the trafficking. Parents are often deceived by slavers; she encourages mothers to hold the line against them, though she and her family have had death threats and there have been painful attempts to destroy her reputation and that of her organisation. ‘I think I do what I do because I know what it is like for my children to be deprived of freedom. I brought up my children in prison but even so, I was lucky; I had them with me. The girls we rescue are alone and scared. They don’t have their mothers. They don’t have anyone to help them at all.’

In the uncertainty following the fall of the Marcos regime, Cecilia Flores Oebanda was able to ask radical questions, including: what would the Philippines look like if the economic benefits of migration didn’t mean turning a blind eye to forced and trafficked labour? Despite the very considerable resistance she faced, thanks to the fact that the system depended so heavily on corruption, she was able to assemble a network of people to work with her and to muster sufficient pressures, incentives and emotional motivations to establish new rights and new ways of thinking and behaving.

■ ■ ■

TIME ISN'T MONEY

Mothers have many of the qualities that research has shown to be crucial to innovation – values, empathy, relationships, creativity and resilience. But what about the time?

BELINDA PARMAR, the founder of Lady Geek, complained recently that she is constantly asked how she balances her work with her home life – a question, as she noted, it is unlikely anyone ever asks Larry Page. And of course, in terms of equality, she should not be asked. It is not reasonable to assume that just because she is a mother she is the person in her family responsible for the balance (or, as she points out, that there *is* a balance). All the same, it is not exactly surprising that her ability to combine running a tech-related business with being a mother is of general interest, because there are plenty of statistics to show that work in the UK remains obstinately gendered and mothers do still find it harder to combine home and work.

Eliminating gender discrimination in relation to occupation and pay could increase women's wages by about 50%, according to government figures.⁴⁰ Over the last decade, a British male graduate could expect to earn 20% more, on average, than a female graduate. Women working full time in the financial sector earn 55% less than their male colleagues. And so it goes on. Currently 2m women in the UK are not working because of caring responsibilities, compared to 200,000 men. Mothers are leaving professions demanding more than 50 hours a week at higher rates than men or childless women. Nearly half of women working part-time are over-qualified for their jobs. And Department of Work and Pensions figures show that on average, women's wages fall relative to men's for a decade after the birth of a first child.

Like it or not, mothers are at the sharp edge of the debate about the relationship between time and money. In her recent book, *The XX Factor*,

the economist Alison Wolf shows that childlessness in the US and the UK is closely correlated to educational attainment. In a chapter provocatively called *The Rich Get Rich and The Poor Get Children*, she points out that, since the mid-1970s, the proportion of American women who stay childless has doubled. Between a quarter and a fifth of American women with university degrees have never had a child. Childlessness is also twice as high among educated British women as among those with the least education. There are strong disincentives to motherhood because the money that individuals stand to lose by caring has grown; there are more and more competitive pressures penalising those who don't spend their time improving the bottom line. As Nancy Folbre notes, parents must nowadays rely on reserves of altruistic love to justify looking after their children – substantial ones, at that: enough to last a couple of decades. This is a tall order in a society that venerates the market. 'In a rat race, the rat willing to work the longest hours wins, even if the size of the cheese remains fixed,' Folbre says drily. 'In this environment, we shouldn't be surprised to see a new strain of super-rats emerging, one that has reduced needs for giving or receiving care.' Social critics like Karl Polanyi have long warned that the growth of market-like behaviour, including the increased legitimacy of shopping around, might encourage selfish calculation.

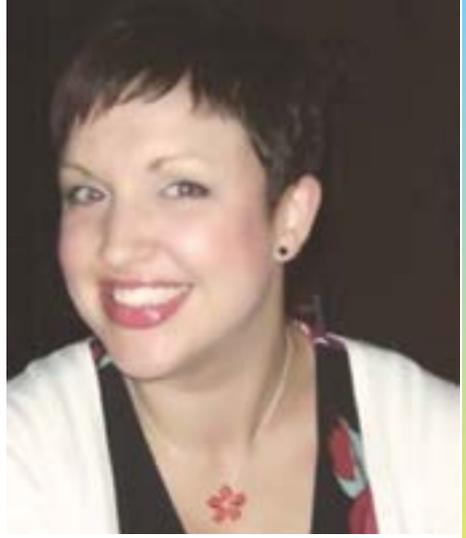
Women are now broadly expected to work, but the caring side of things has more or less got lost from the political narrative: a seductive idea has grown up that paid work is a mark of higher moral value. 'Hard-working families' are assumed to be families where the parents work for money. The Mail's columnist Richard Littlejohn criticised Jack Monroe on the grounds that she had given up her job to look after her son; strivers are contrasted with skivers; a television programme that features a street of people on benefits becomes the modern equivalent of the Victorian freak show. The underlying assumptions are that those who work for money are socially dependable, while those who don't are disreputable – and the harder and longer you work for that money, the higher the moral ground you are entitled to take.

Mothers have strong incentives to innovate in their working lives. Many women in the developed world find themselves trapped in low-status, part time jobs because, while they are expected to work, it is also assumed that this should have minimal impact on caring for children or ageing parents.⁴¹ But the dilemma doesn't only affect those in lower paid, lower status occupations. In an influential article published in *Slate* magazine in July 2012, Anne-Marie Slaughter revealed that she had given up her demanding job in the US State Department because 'juggling high level government with the needs of two teenage boys was not possible'. Slaughter said that when she spoke to a group of female Rhodes Scholars at Oxford, she found almost all of them assumed that they would have to make compromises that the majority of men in their lives would not have to make. This state of affairs experienced by mothers both as a matter of duress and as a choice.

‘I am paying the bills and I am raising Peggy. I feel no tension between being a feminist and making cakes.’

NATALIE KING

Hello Babycakes (UK)



This is clearly an area ripe for mother-led innovation – although feminists have sometimes been reluctant to confront the devaluation of the work of caring, on the grounds that policies designed to help support families can often look as though they are designed to keep mothers in the home (and even if they aren't, that can still be the unintended consequence). It has been easier, on the whole, to expand women's opportunities in the workplace and hope that in time men's roles will modify to make family life bearable.⁴² But this is proving to be a relatively slow process, as the Rhodes Scholars' conversations with Anne-Marie Slaughter suggest, and, as a result, mothers experience acutely some of the most pressing questions in developed economies: the conflicting pull of paid and unpaid work; who does the caring; why caring remains so low status when it is such a vital human activity; and what on earth time (or time on earth) is really for. When the question of mothers and innovation is raised in the UK, the conversation invariably, and usually very quickly defaults to the tension between work and motherhood and the need for mothers to innovate solutions to that.

One option mothers pursue is to try to make paid work less inimical to caring. When she had her first child, **Natalie King** was global events coordinator for Aston Martin, a job that involved extensive foreign travel. Despite the fact that the company was keen to retain women, none of its employees had ever worked part-time and she was advised by her manager not to ask to do so. King had trained as a nursery nurse and had 'worked in enough awful nurseries to be sure I didn't want to put my child in one.' Her husband offered to stay at home and look after their daughter but his salary was higher than hers.

King left Aston Martin to set up **Hello Babycakes**, producing high-end, creative cakes, starting with orders from her NCT group. She still works hard but the autonomy feels worth it. The family budget is tight, but she feels that she

‘I realised I needed to find a new way
of working. We didn’t want to pretend
we didn’t have a baby’

ABBE OPHER ReLike (UK)



has made the right decision. 'I am paying the bills and I am raising Peggy. I feel no tension between being a feminist and making cakes. People want cakes.'

Abbe Opher was a copywriter when she had her first child. She and her husband, who is a vet, were surprised by the extent to which parenthood made them look at the world differently. 'I realised I needed to find a new way of working. We didn't want to pretend we didn't have a baby.' Opher set up **ReLike**, a service that uses the internet to connect people who want to recycle children's clothes.

King and Opher are in the vanguard of mothers who are trying to revalue work that is done in the home. Even though King sells mostly to customers in Oxfordshire, her peers are celebrated cake makers in Australia and America; she is part of a worldwide elite that posts online tutorials and shares ideas and tips. In the world of cake making, she is a celebrity; and, on the internet, it's a sizeable world: the cake enthusiasts who post pictures of her cakes and her recipes have 40,000 or 50,000 followers on their blogs or Facebook pages; she can make a cake and a few hours later it will have been seen by thousands on several continents. Opher lives in on the remote Welsh borders but has been able to start a business with customers across the country.

Perhaps it doesn't matter if mothers are leaving large organisations if they are setting up their own businesses. **Marlene Sandberg** was a corporate lawyer in Stockholm with a one year-old son and another child on the way when she read that the average baby gets through one tonne of disposable nappies a year, most of which end up in landfill. There is no evidence that the petrochemicals in them will ever break down. In the UK, disposable nappies account for 3% of household waste; landfill contributes 38% of methane levels. Sandberg set up **Naty** nappy, working with a small factory in Sweden to produce biodegradable nappies. She now exports all over the world, to Russia and America, Australia, New Zealand and Korea.

Not all motherhood-driven businesses grow like Naty Nappy; many never make it off the kitchen table. The expansion of Hello Babycakes is constrained by Natalie King's own expertise (craft is reproducible up to a point, but not entirely) and logistics: she would have to charge high prices to transport cakes from her home in Oxfordshire to, say, London. But platforms like Etsy and Not On The High Street offer even small craft businesses (if not cakes, then many other home-crafted products) the opportunity to aggregate demand from around the world.

The potential for craft-led businesses is suddenly huge, because digital desktop tools allow anyone to create designs and prototype them. The culture of file-sharing, which has grown out of open source software, offers positive network effects – the more people who contribute to an idea, the bigger it can grow and the more specialised needs it can respond to. Common design file

standards also mean anyone can send designs to commercial manufacturing services, so that it is now possible to be an amateur and a professional in the same moment. You can choose to print local – one copy on a desktop printer – or global, sending off your file to be manufactured in large numbers. Rufus Griscom, the founder of Babble.com, calls this the ‘Renaissance of dilettantism’.⁴³ Chris Anderson argues that it amounts to the beginning of a new era of manufacturing, in which there are opportunities to be both small *and* global, artisanal *and* innovative. ‘What the new manufacturing model enables is a mass market for niche products.’⁴⁴ The writer Cory Doctorow, who among other things is married to Alice Taylor, probably put it best, in his 2009 science fiction novel, *Makers*: ‘The days of companies with names like ‘General Electric,’ ‘General Mills’ and ‘General Motors’ are over. The money on the table is like krill: a billion little entrepreneurial opportunities that can be discovered and exploited by smart, creative people.’

Bruce Nussbaum, Professor of Innovation and Design at Parsons, New School of Design, has called this rise of micro businesses ‘indie capitalism’ – which he identifies as depending on networks, rather than markets, and as focused on the production of things that are meaningful to people, with an emphasis on the local, community-focused, organic, creative and socially responsible. He argues that the growth of this home-grown, small-scale, independent style of capitalism will restore the making of things and the mastering of tools to a central place in social life: making things will become an aspect of a meaningful existence, replacing consumption as an end in itself.⁴⁵

It would be a mistake, then, to dismiss mothers’ kitchen table businesses as economically irrelevant. They may not all grow into Naty Nappies (though some will) but they may still in aggregate be a powerful demonstration of a new way of managing the relationship between paid work and the home. There is an old economist’s joke that if a man marries his housekeeper, he reduces GDP, while if he puts his mother in a nursing home, he increases GDP. It is a comment on the nonsensical way we measure value, missing out much of what makes us human. Anna Coote and Jacob Mohun Himmelweit report, in their essay *The Problem That Has No Name – Work, Care and Time*, that if the total number of unpaid hours spent on childcare and domestic labour in the UK, as calculated in the Time Use Survey, were valued at the minimum wage, it would equate to 20% of GDP.⁴⁶ It is perhaps not all that surprising that as women become more economically powerful, they are keen to re-value the work that goes on in the home – and one way of doing that is to bring the work that is done inside and outside the home closer together.

Keynes famously predicted in 1930 that technological progress would drive up rates of productivity, so that, by the 21st century, people would need to work no more than 15 hours a day. Instead, as productivity has risen, workers have taken their share of the surplus in money rather than time. Paid work is

visible and valued. In the 20th century, paid work was at the centre of heroic struggles, as trade unions built up mass memberships by defending paid work and persuading employers to pay for time. Now we find ourselves with a sense of time as the servant of money: it exists to be carved up, measured and managed to increase monetary profit. (My only memory of the only careers fair I attended at school was a time and motion executive trying to persuade me that measuring the rate at which other people were working was a useful way for me to spend my life). Increasingly, though, some people are asking what the world would look like if, in Geoff Mulgan's proposition, 'the relationship were reversed and money became the servant of our aspiration for more and better time?'⁴⁷

That kind of thinking provides some of the impetus for indie capitalism, suggesting the possibility of making money in ways that don't demand the compromises entailed in working for a corporation. We only have to think back to the countercultural beginnings of computing, to figures like Douglas Engelbart and Stewart Brand, to see that an alternative set of values plus technology can lead to revolutionary new ways of making money. The growth of crafts-based businesses and the maker movement point to a new kind of structure for the economy, in which mastering tools and making things is the basis for a meaningful life, replacing consumption as an end in itself. As Chad Dickerson, Etsy's CEO, put it in the company's first small business conference in late 2011: 'Decades of an unyielding focus on economic growth and a corporate mentality have left us ever more disconnected with nature, our communities and the people and processes behind the objects in our lives. We think this is unethical, unsustainable and unfair. However, with the rise of small businesses around the world, we feel hope and see real opportunities: opportunities for us to measure success in new ways...to build local, living economies and, most importantly, to help create a more permanent future.'

All very well – but many of us are not yet in a position to be eating up the krill of a new kind of capitalism. For most people, getting paid still entails getting a job, at least for some part of a career. And many jobs, especially in industries that have to be globally competitive, require long hours and a pretence that what goes on at home is not intruding. This can make life difficult for mothers and fathers but, again, the gendered history of caring and residual pay differentials mean that mothers are often confronted with it first and most acutely. The question then arises whether it is necessary to opt out of corporate life in order to nourish a life that prioritises time? To put it another way, are there innovations in work that would rebalance the relationship between money and time?

Emma Stewart decided to leave television when she was on a shoot in Los Angeles, nearly eight months pregnant with her second child. (It is not unusual for executive women to leave highly paid and demanding jobs after the second child, rather than the first.)⁴⁸ She teamed up with an acquaintance, Karen Mattinson, to help charities and public sector organisations develop for-profit

‘We knew all these clever successful women itching to do some work, and we had clients wanting to employ people’

EMMA STEWART
Timewise (UK)



trading arms. They needed to hire well-qualified people to run these operations, although rarely full-time, and started recruiting friends and acquaintances, women like themselves. ‘We were job creating through our consultancy,’ Stewart recalls. ‘We knew all these clever successful women itching to do some work, and we had clients wanting to employ people, although not necessarily full time, and we started informally matching them – and as it carried on, we thought, “hang on, we think we’re onto something.”’

That was the beginning of **Women Like Us**, an organisation that offered careers advice and support to mothers wanting to get back into the workplace. Stewart and Mattinson also set up a jobs agency and online recruitment service, **Timewise**, focusing on part-time roles. Around 85% of their candidates are women, although they don’t emphasise that, having concluded that an apparently gender-neutral service was more likely to lead to the development of a quality part-time jobs market: ‘We decided one of the best ways to help women was not to talk about women.’ They recognise that to create such a market, they also have to change assumptions about part-time, flexible and agile work. (The frequently shifting fashions in adjectives seem to reflect an uncertainty about how the benefits to employers and employees are best articulated). Timewise has launched a Part-Time Power List, focusing on people who defy assumptions that part-time has to mean part-value, or implies rigidity. More than 8m people work part-time in the UK, 650,000 of them in roles earning £40,000 a year and above.⁴⁹

The Davies Review of February 2011 highlighted the lack of women on boards

in the UK and called for a minimum of 25% female representation on FTSE 350 companies by 2015. It looks likely that this target will be met, albeit mostly with non-executive directorships: the 'pipeline of talent' still isn't delivering in the sort of numbers of female executive directors that graduate recruitment levels might lead us to expect, though there are estimable efforts being made with mentoring, job-sharing and the re-design of careers. Alison Wolf's work suggests, though, that for many women there is increasingly a choice between running the world and running a family.⁵⁰ This may be because much of the discussion about how to accommodate women seems to assume that the only variable is how women divide their time between their fixed needs to earn money or have careers and to care for their families. In fact, Wolf marshalls a battalion of statistics to show that highly-educated, highly-paid women are increasingly choosing not to bother at all with caring, because it no longer makes any rational sense. Caring for others can be defended – or weakened – by economic rewards.

In rewarding selfishness and not valuing care, the market not only undermines families in its own short-term interests, but also undermines its own long-term success. In the past, women's preparedness to care was rational: 'when women were excluded from the highest-paying jobs,' Nancy Folbre says, 'it didn't take a lot of willpower to choose the most morally redeeming ones.' But the values of the market are now pushing out all others. Paid carers are under pressure to get through appointments in fifteen minutes. Yet caring is work in which speed does not equal efficiency – arguably, the opposite. Doing it well probably means spending more time on it.

The Texas populist Jim Hightower argues that we need an alternative to the Dow Jones – a wellbeing index, which more accurately reflects this work and the value it produces.⁵¹ This value is considerable: just looking at the results Mocep has produced shows what a difference a rich and nourishing pre-school environment can make to educational attainment, job prospects and social adjustment. Families are crucial in developing emotional intelligence, which, as Daniel Goleman points out, has a considerable impact on economic success (not to mention the day-to-day bearableness of living alongside other people).⁵²

This is not an argument for mothers to take on more of the responsibility of caring – actually the reverse. But mothers who are trying to innovate their way out of the difficulties families find themselves are in an extraordinarily important position. At a time when we have seen market meltdown because of short-termism, we need pressure from outside the market to remind us of the long view. Mothers who are innovating to make time a greater priority, to revalue the place of slow-paced, attentive caring for others in the economy, hold the future in their hands.





CONCLUSIONS AND RECOMMENDATIONS

A women's economy has always existed: women have always used their time to work for others, to create systems, to produce goods. But a theory of the economy that is built purely on money has traditionally sidelined this activity.

AS LINDA Scott of the Said Business School sees it, the wrong questions get asked about the global economy of women. 'Everyone is looking at the issue as "how do we fit women into the formal economy?" Instead, you need to ask: "How do they already manage resources?"

'We need to understand women as an economy of their own, because they are an excluded group in economic terms so they have different rules. We take economic principles as being obvious, or God-given, but they are constructed in a way that excludes women. We value things according to their monetary value, so if women are not paid for their labour, if they're not allowed to inherit wealth or to have bank accounts or credit cards, they are left out. And if you have a theory of the economy that is built on the unit of money, they're left out of that too.'⁵³

Speaking to women in the developed world for this report, again and again the conversation would default to the conflict between the formal economy and the informal one of care; the need to balance career and family; to find compromises, accommodations and support that would allow the squeezing of too many responsibilities into too little time and space. Sometimes this can feel like looking at the issue down the wrong end of the telescope: narrowing it down to a singular solution – get a job and somehow make life work around that. It

might be very much more interesting, and open up more innovation, to look at the capacities and the skills that mothers already have: how are mothers already managing resources? What do mothers in the developing and developed world bring to bear and how can the formal economy respond to that and take up some of their ideas?

The current political emphasis in the UK on paid work ('hard-working families') as the highest good leads women looking for solutions to their daily dilemmas down a fairly well-trodden path: trying to make jobs work better. Part-time, flexible or agile working (pick your currently fashionable adjective), mentoring and sponsorship, coaching and job sharing are all important developments and will be even more so once they are embraced by men; but they have yet to solve the fundamental inequalities in much of the paid economy, or mothers' sense of unease. The economists Justin Wolfers and Betsey Stevenson have shown that American women are less happy today than their predecessors were in 1972, both in absolute terms and relative to men, suggesting that this is because of the devaluation of home life without any lessening of responsibility. Wolfers and Stevenson call this the 'new gender gap', measured by well-being rather than wages.⁵⁴

As this report has shown, mothers have a tremendous capacity to innovate and quite a lot of that capacity comes from the outsider values that have grown up around motherhood. To assume that equality only means making women better at accommodating to economies built on individualism, self-interest and competition is not only to leave out, but to undermine, the really valuable capacities mothers can bring to bear.

We live in a time of accelerating volatility, complexity and ambiguity. Technology and globalisation have changed the world beyond the imagination of those of us who grew up before the internet. That in itself would be a sufficient condition for innovation, to which mothers might be in a position to respond. But the direction of change makes conditions even more open to mothers' initiative. Almost all recent EU job growth has come from services. The ageing population, the need to create greener ways of living, the focus on the need to educate everyone rather than a few, are all factors reinvigorating the household as a place of economic activity. No longer simply a place of consumption (and, less, visibly, of the production of workers), the household is also where chronic diseases and disability are managed; where waste is separated and energy consumption is reduced; where relationships are fostered. An economy that focuses more on pathways and service journeys rather than simply on production and consumption directs attention to the household, with potentially revolutionary implications, as Geoff Mulgan has noted: '[This] suggests that the most important thing to be valued in the modern economy is not things, but time....Much of modern economics treated household time as largely irrelevant...Turning attention back to the household unavoidably brings

economics into contact with values, because the household is the site of care, love and trust.⁵⁵

In the twentieth century, people in the developed world sought to define themselves by what they consumed. Today, measuring success purely by what we own seems increasingly like a hiding to nothing. The growing gap between rich and poor and the fragility of social mobility mean that for most people, identity and purpose will be severely constrained by factors beyond our control. It is increasingly obvious that a lot of the things we own are not all that useful to us: the average family car, as Mar Alarcon realised, lies idle most of the time. The recession has alerted us to the precariousness of relying on things as the principle ratification of ourselves. Rationally, as Mulgan adds, quality of life has to be more important than being seduced by the modern equivalent of grave goods.

The combination of the needs of people in the 21st century – to be greener, healthier, better educated, to find ways of caring for each other, to find meaning beyond consumption – and the opportunities presented by the sharing solutions enabled by networked technology are leading towards an economy that is founded on being and doing rather than having, on relationships rather than commodities, on maintenance rather than production. The qualities that are at a premium in such an economy include empathy, collaboration and emotional intelligence. A sharing, distributed, post-industrial economy rewards the capacities that one might broadly think of as maternal.

As this report has shown, whether through environmental factors, culture or a combination of the two, mothers have the capacity to be really effective innovators. Broadly, motherhood fosters a number of cultural factors that play into innovation:

- strong values
- empathy and emotional intelligence
- ability to make relationships and collaborate
- resilience and the ability to deal with failure
- pragmatism

Mothers are well placed to innovate because they occupy a pivotal intergenerational position in their families. They do the majority of consuming for the family (women are said to make about 70% of purchasing decisions⁵⁶)

which, at a time when boundaries between consumption and production are becoming increasingly blurred, puts them in a powerful position. Motherhood itself also enforces a different perspective. Innovations often come from the margins, from outsiders who are able to see things from a different viewpoint, and it is fair to say that motherhood makes us outsiders to ourselves; it enforces a change of perspective.

How can mother innovators be supported and enabled? There are things, big and small, that government, funders and business can do:

Overall, we need to change our assumptions about what an innovator looks like. Mothers get left out of thinking about innovation because motherhood is popularly envisaged as cosy, safe and undynamic. In fact, motherhood is disruptive and creative, demanding improvisation and ingenuity. Including mothers in the conversation about innovation will lead to greater opportunities to turn ideas into action.

Recommendations for business and funders

- **A challenge prize should be set up to encourage mothers to make small-scale innovations for their communities, with special attention to innovations in the areas of care and time, including promoting men's greater involvement in the care economy**
- **There is a lack of venture capital for mothers trying to be entrepreneurs. It is a truism that women find it harder to get investment than men. The tendency to invest in the person rather than the idea can lead to unconscious bias: there is a fixed idea of what an entrepreneur looks like and the way he behaves.⁵⁷(The fact that men typically ask for more money is seen as a reason to invest in them.) Investors need to think about discriminating positively in order to overcome this unconscious bias.**
- **Accelerators should target mother entrepreneurs, responding to and encouraging their modes of innovating and making the case for mothers' creativity, drive and effectiveness.**
- **Businesses, especially tech businesses, and communities should look at hackathons for mums, combining mums and tech people (including mums who are tech people) to create innovative solutions to the problems that parents identify in their communities – these not to be fuelled by beer and pizza and to involve some sleeping.**

- **Businesses should look at making small grants available to mumpreneurs innovating in their brands' areas of activity, along the lines of the Huggies scheme in the US.**
- **Goldman Sachs has pioneered the idea of returnships, typically 10-week immersive courses for those returning from career breaks of up to 10 years, and these are now starting to gain traction with banks in the UK⁵⁸ Cherie Blair has called for them to be widely available here.⁵⁹ A much broader range of industries, including tech, should look at offering these internships for returners.**
- **Companies should start from the assumption that innovation can come from anywhere in the organisation and embed the opportunity to innovate at all levels, on the grounds that if your manager doesn't like your idea, someone else might, to make it easier for mothers (and everyone) to express their proposals for innovation.**
- **Businesses need to think about re-designing careers with a more modular structure rather than seeing a career as a ladder that must be scaled as fast as possible (with the penalty that if you don't do it quickly, you'll fall off). It should be possible for men and women to spend periods of time when they are not actively seeking promotion to come back to a more ambitious position without being penalised. This requires taking a more holistic view of the life course and a more open, less ageist and prescriptive view of what can be achieved at different times.**
- **Companies should conduct re-entry interviews (along the lines of exit interviews) for mothers returning from a period outside the workplace, to harness the insights gained from being away.**

Recommendations for Government

- **There is a need to look at and encourage broader measures of success alongside GDP. Without this, we will not be able to reward behaviour we value. As Virginia Held puts it: 'Instead of importing into the household principles from the marketplace, perhaps we should export to the wider society the relations suitable for mothering persons and children.'⁶⁰**
- **Effort should be made to involve mothers in innovation in the places where they gather and exchange ideas. Women's lives are often subject to more disruption than men's and they tend to collect in particular places at the moments of greatest change – the ante-natal class, the nursery, the school, the Alzheimer's carers' group – and these moments and places could be harnessed to reap insights and stimulate innovations.**

- The efforts to get women involved in tech should continue, with special attention paid to mothers both as supporters of their children and directly. Only 6% of people in development roles in gaming are women (and 20% in the games industry as a whole) – which is odd as it is their children who are primarily playing. A minority of game titles offer the opportunity to play as a female lead character. Games developers are undervaluing 50% of the market; they need to get parents involved as advisors and co-creators. Courses along the lines of #techmums should be made widely available, teaching mothers coding and app development; but there should also be opportunities for mothers to explore the applicability of their existing and other skills to tech industries, with an emphasis on design, creativity and making.
- President Obama has launched a programme to bring makerspaces to 1000 US schools. There should be a similar scheme in the UK, with special effort made to engage girls. Some of these makerspaces should be turned over to mums once or twice a week outside school hours.
- There is a lack of visibility of mother-driven micro-enterprises, including of their ability to contribute to the economy. There should be more help for micro-entrepreneurs, including support for scaling. (One simple policy to come out of prioritising and supporting micro-enterprise might be for local authorities to offer cut-price business rates in otherwise declining high streets for local craftspeople.)

When the United States paid compensation following 9/11, the average payment for male deaths far exceeded that for female deaths.⁶¹ Women's lives have quite literally been devalued. The assumption that women are economically less useful has had a negative effect on our perception of what they are capable of. The nineteenth and early twentieth century rhetoric of women as inactive dependents reinforced an assumption that wives and mothers were supported by men without providing significant services in return. This has persistently justified lower wages for women on the grounds that they were capable of living on less. It is also a large part of the reason why mothers are not thought of as innovators.

There is an opportunity to take a radically different view not only of mothers, but of what constitutes a good life, well-lived. The combination of technology, feminism and a growing understanding of the benefits of the outsider values of mothers mean that we have the potential to learn from the innovations of mothers in the developing and the developed world. In health, in education, in food and the environment, in business and entrepreneurship and in the ways in which we work, very often, mother innovators are showing the way.





Endnotes

- 1 In the UK, Shared Parental Leave doesn't come in until April 2015. The government estimates a 4-8% takeup, according to the Fatherhood Institute's Jeremy Davies <http://www.telegraph.co.uk/women/mother-tongue/10783119/Paternity-leave-The-real-reasons-why-dads-will-shun-new-parental-leave.html>
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- Historical scholarship details the many laws that gave fathers and husbands property laws over their daughters and wives, excluding women from education and lucrative forms of work. Analysts of patriarchy (such as Sylvia Walby, the first UNESCO Chair in Gender Research) suggest these coercive rules came into being because women really wanted education and work and the right to control property and, had they not been by these laws, constrained, would have made sure to get them.
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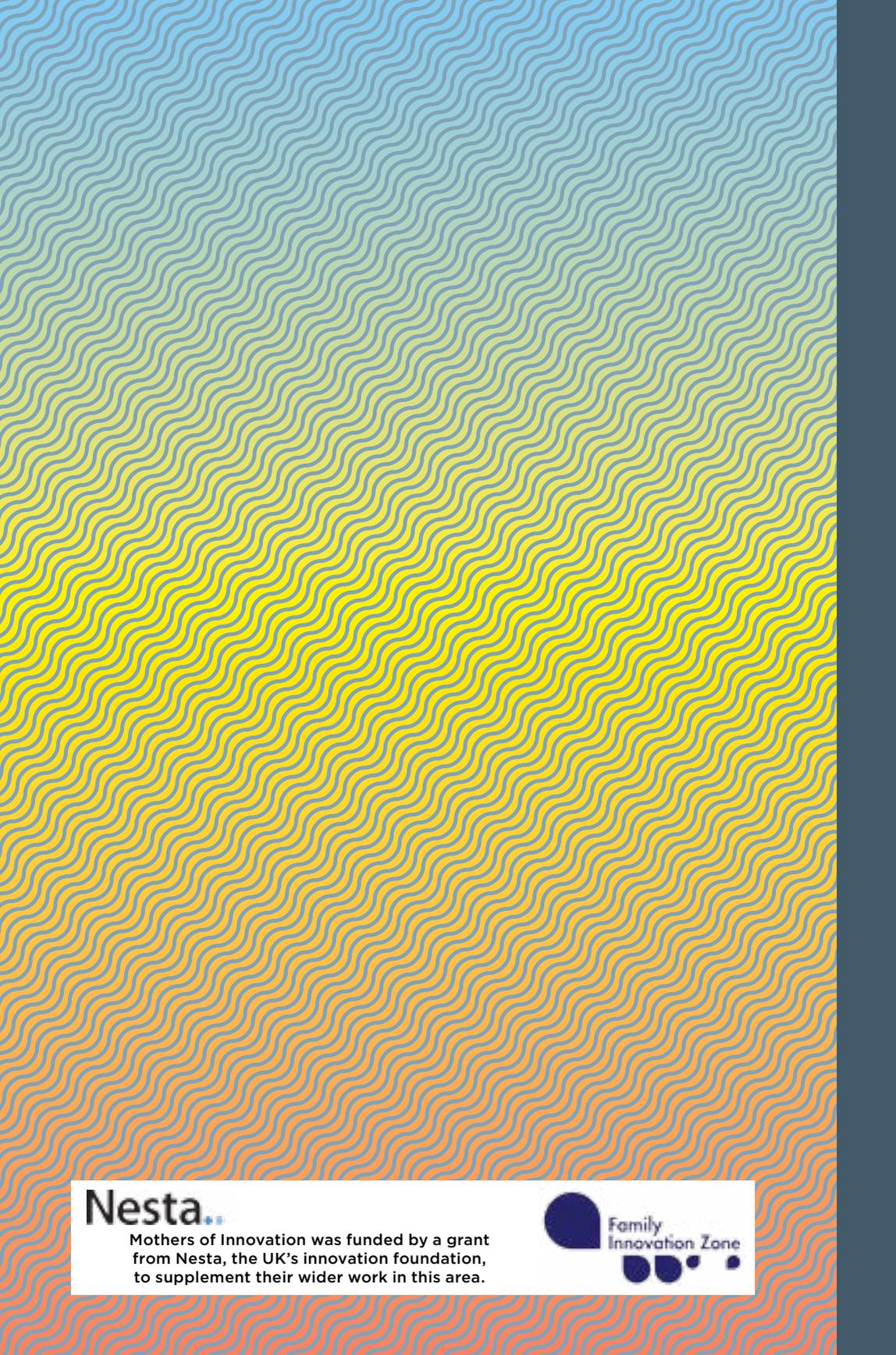
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