


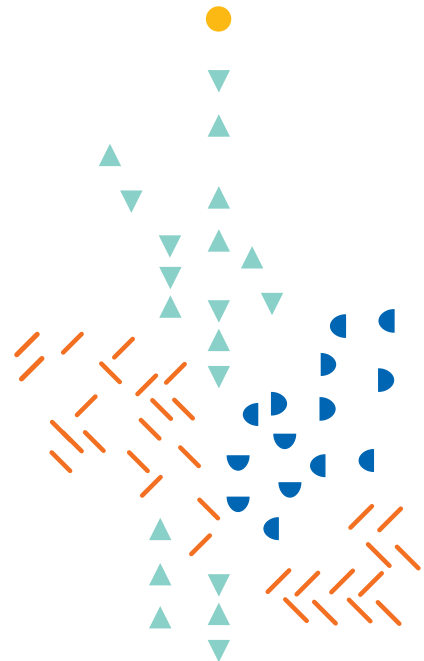


AGENTS OF ALTERNATIVES

Re-designing Our Realities



Edited by:
Alastair Fuad-Luke
Anja-Lisa Hirscher
Katharina Moebus



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Agents of Alternatives (AoA), Berlin, Germany

First edition produced and published by
Agents of Alternatives, Berlin, Germany in May 2015

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Visual concept & cover: Anja-Lisa Hirscher and Katharina Moebus

Editorial design: Anja-Lisa Hirscher

Page layout: Anja-Lisa Hirscher and Gaspar Mostafa

British-English proofreading: Isabelle Machado Aires

Translation: German to English by Katharina Moebus

Font: Brandon Grotesque and Aleo, which is licensed under the SIL Open Font License, Version 1.1

Printed by InPrint, Latvia, 2015. The paper is Multi Design Original Natural, Forest Stewardship Certified (FSC)

ISBN: 978-3-00-049379-9 paperback

Agents of Alternatives e.V.
Berlin, Germany
www.agentsofalternatives.com

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ACKNOWLEDGEMENTS

Many people and organisations helped make this book a reality. We give a particularly warm thanks to our contributors who generously gave their time and energy to share their experiences and thoughts. We extend our grateful thanks to our crowdfunding sponsors who funded some of the key production costs via a campaign on Sponsume. We thank them for their trust and patience throughout the project. Some of them, as page or content sponsors, also contributed thoughts and words, which we think enriches the content of the book.

We thank the Finnish Cultural Foundation (SKR, *Suomen Kulttuurirahasto*) for funding the early stage research from September 2012 to September 2013. Also, we wish to acknowledge Aalto ARTS (The School of Arts, Design & Architecture, Aalto University), Helsinki, Finland for the research and writing time we were able to dedicate to this project. Alastair extends his thanks to Lahti Region Development (LADEC) Finland for funding received through Aalto ARTS under the *Elite 2* project, and to Riikka Salokannel, Design Development Director, with whom he worked from 2011 to 2014. The editorial team acknowledges the support of Professor Pirjo Hirvonen, Head of the Design Department at Aalto ARTS during that period.

We are very grateful to Gaspar Mostafa for his significant contribution to the page layout design and for converting raw diagrams into stylish graphics; to Isabelle Machado Aires for the eagle-eyed dedication she brought to British-English proof-reading; to Cathérine Kuebel for her contribution in the early phase of the research and to the two workshops we held in Berlin in October 2013 and February 2014.

We give sincere thanks to the founding members of the non-profit association Agents of Alternatives agreeing to publish this book as one of its first activities. In addition to the editors of this book, our co-founding members are Malin Bäckman, Nicholas Torretta, Gaspar Mostafa, and Peter Breuer. We thank our lawyer Julia Breuer for her advice during the formation of the organisation and Tabea Glahs and Sanneke Duijf for their input during the organisation's early development together with Daphne Büllesbach and Cecilia Palmer for their experienced advice.

Warm thanks to all the contributors who penned something for the book, and to all the named and un-named contributors to the projects we featured:

Amber Hickey, Ana Malalan, Andreas Unteidig, Andrew Paterson, Anna Richter, Antonia Schui, Ben Becker, Ben Pohl, Bernd Kniess, Bianca Herlo, Caleb Waldorf, Cecilia Palmer, Christina Nägele, Christopher Laumanns, Cindy Kohtala, Claudia Garduño, Cordula Andrä, Corinna Fuchs, Daphne Büllesbach, David Bollier, David

Griedelbach, Diana Krabbendam, Elisa Garrote-Gasch, Eric Schuldenfrei, Fiona Geuß, Florian Sametinger, Fotini Lazaridou-Hatzigoga, Francesca Weber-Newth, Frauke Hehl, Frigga Haug, Gabi Sobliye, Gesche Joost, Harald Gruendl, Isolde Nagel, Jennifer Schubert, Joel Rosenberg, John A. Harris, Lisa Gutermuth, Luisa Maria Schweizer, Malin Bäckman, Malte Bergmann, Marcin Jakubowski, Marco Kellhammer, Marisa Yiu, Martin Parker, Maya Indira Ganesch, Michel Bauwens, Otto von Busch, Sam Muirhead, Samantha Riccio, Stefanie Gernert, The Public School Berlin, Thinkfarm, Tiina-Kaisa Laakso-Liukkonen, Trade School New York, Valerie A. Brown, Wendy Brawer and Zoe Romano.

Sponsors:

Adam de Eyto, Aita Bott, Anna-Miia Suihkonen, Anne Badan, Antti Vaahtersalo, Caroline Lutteri, Carolyn Strauss, Christopher Barlow, Claudia Garduño García, Colin Webb, Daphne Büllesbach, Fahrettin Ersin Alaca, Fernando Lusitano, Gaspar Mostafa, Graham Hill, Helge Mahne, Inês Laranjeira, Ingeborg Zimmermann, J. E. Frost, Jakub Bobrowski, Jenni Väänänen, Jessica Walsh, Julian Lindley, Kirsi Niinimäki, Kristiina Karinen, Larry Hickey, Liam Hinshelwood, Lucero Donaji de la Huerta, Merced Gómez, Malin Bäckman, Matei Cioata, Matti Jäppinen, Michael Moebus, Mike Waller, Mima Pejaska, Ying-Ju Lin, Paula Bello, Peter Breuer, Rebekka Moebus, Lili de Larratea, Ricardo Gonçalves, Sakari Karinen, Sarah Johnson, Selçuk Balamir, Siegfried Hirscher, Susanne Bergner, Suvi Kajamaa, Svetlana Usenyuk, Tabea Glahs and Tom White.

We would like to extend further personal thanks:

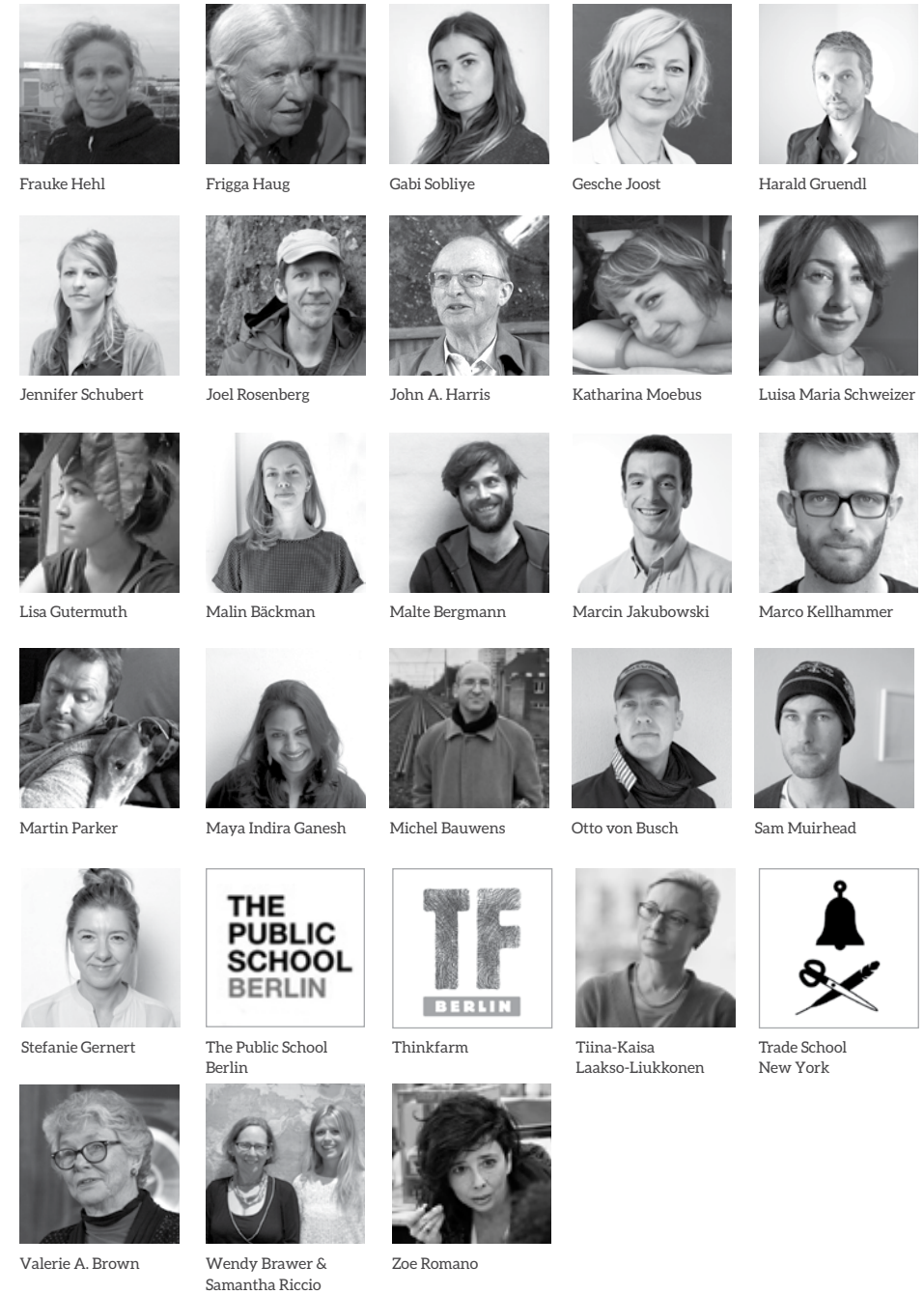
Alastair: I am grateful to all my friends, family, co-editors, students and colleagues with whom I've shared many conversations during the preparation of this book and who helped me turn emergent thoughts into words.

Anja: I would like to thank everyone from my family and home in the Allgäu – my dear friends there – for inspiring walks and talks, plus my friends, colleagues and co-editors in Helsinki and elsewhere, for great discussions and support all along the way.

Katharina: My dearest thanks to my love Peter and our little daughter Ofelia, to my family, old friends and new ones made through this book, my co-editors Anja and Alastair, colleagues and co-activists from Helsinki, Berlin and elsewhere for all the inspiring discussions and perspectives that helped make this book.

THE CONTRIBUTORS

The contributors to this book come from diverse fields including architecture, art, design, landscape architecture, urban planning, education and research, to name a few. They are practitioners, activists, designers, artists and academics. This book would not have been possible without their commitment to challenging the paradigm and their belief in creating alternatives.



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INTRODUCTION

You hold in your hands a book which is really a manifestation of an evolving vision to link designing with everyday 'active-ism' which helps materialise plausible 'alternatives' to the global economy and neo-liberal capitalist practices. This was driven by an underlying belief that we need to 're-design our realities' to better reflect and respond to our pressing contingent challenges about our social, ecological and financial condition.

Exploring 'agents of alternatives' demands a multidisciplinary dialogue within and between citizens, practitioners and academics who make things happen. So, you will find contributors from diverse fields: design, the arts, architecture, education, politics, economics, urban planning and city administration, social enterprise and the informal sector, including non-governmental organisations (NGOs), experts on the commons, and others. We encouraged activists, researchers, educationalists, strategists and facilitators to share their views. In this book we mix the voices of well-known contributors alongside lesser-known active local agents. We look for emergent ways of learning-by-doing, of designing, of manifesting things differently and catalysing positive change, and we present these ways of thinking and practicing so that others might fruitfully experiment with, explore and generate alternatives for themselves.

Agency

Our position is that *everyone* and *everything* has agency, that is, the capacity to change what happens next. A position reinforced by certain philosophers – for example, Bruno Latour's human and non-human 'actants', Gilles Deleuze and Felix Guattari's 'social material assemblages', and Jane Bennett's 'vibrant matter'.¹ We, and our contributors, also adopt more accepted sociological and anthropological views of agency involving the social structures, systems and rules which bind or break them. Those with agency are actors, stakeholders, shareholders, institutions, organisations, diverse communities and other social groups. We would also invoke 'political agency' as a healthy form of disagreement and discourse as part of our civic and human condition, not confined within formalised institutionalised practices of 'politics'. In this sense we see the political agency of this book and its

¹ See, for example, Latour, B., 2005. *Reassembling the Social. An introduction to Actor-Network-Theory*. Oxford: Oxford University Press; Deleuze, G. and Guattari, F., 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. Minneapolis: University of Minnesota Press; and Bennett, J., 2010. *Vibrant Matter. A political ecology of things*. Durham, USA: Duke University Press.

contributors as a means to re-examine and explore our social relations and our relations with the wider world so that we might, individually and collectively posit or construct alternatives.

The agents

Who are these agents of alternatives? They exhibit some common features: they are independently minded, but share a critical awareness of our social, ecological and economic condition; they have a vision but it is adaptive to changing circumstances; they are open and transparent, showing their processes and sharing their expertise; they start their journey with the (often meagre) resources at their disposal and show perseverance; they believe their voice counts and encourage others to add their voices too; they turn rhetoric into action; and they reveal opportunities and possibilities. Most importantly, all our contributors here are 'making things happen', they are active not passive, caring not distant, and different not conformist. Read their voices in the essays, interviews and case studies.

Alternatives

Anyone, or anything, contesting the status quo, societal 'norms' or contemporary paradigmatic forces, is, potentially, an 'alternativ-ist'. To be an alternativ-ist is not a new position but has an illustrious history which embraces daring individuals, collective movements, specialised groups and minorities.² Here we define our alternatives through a series of imagined worlds – Thinking, Learning, Sharing, Making, Intervening, Working, and Living – worlds which evolved as the content for the book grew (see p.18-19). We see these worlds intertwined, joined by a series of emergent practices (p.462) and expressed through an evolving lexicon (p.22-37). These alternatives are still young, yet they are potentially catalytic and, if scaled-up, can encourage a transition towards more sustainable, equitable and adaptable futures. We found professionally organised alternatives that try to bridge policy-making and grassroots activism as well as small initiatives that have spread all around the world, because their underlying ideas are so simple, accessible and welcoming to a wide range of people. There are different ways of changing society, and this book tries to have a closer look at the potential of the informal and formal worlds of change makers.

Re-designing

Our shared vision for this book was also underpinned with a belief that the field of design is diffusing out into wider society and is no longer just the primary concern of professionally trained designers, but is actually being practiced by other profes-

² Parker, M., Fournier, V. and Reedy, P., 2007. *The Dictionary of Alternatives: Utopianism and Organisation*. London: Zed Books.

sionals, professional amateurs and citizen designers. We share and update Victor Papanek's view that 'all people are designers',³ and Joseph Beuys' political position making all citizens 'artists' that shape the 'social sculpture' of our society.⁴ And, we believe that a sustainable way of designing is to work with what is existent in a 'locale'⁵ – a diverse array of human, social, public, commercial and natural capitals. In this sense 're-designing' makes more sense than 'designing', because it involves re-configuring the potential of what already exists. This might, of course, involve bringing in new ingredients and smartly combining them to create fresh potentialities. The initiatives, projects and ideas collated in this book are representative for a growing global 'zeitgeist' (spirit of the time) around openness and sharing. This means making ideas accessible to everyone so that they can be adapted to diverse local conditions. Most of them are open source so individual authorship becomes less important and the positive impacts and potentialities of sharing are emphasised. They bring different communities and places around the world together in a dynamic self-organised and, often, surprising way.

To summarise, it is our hope that this book will stimulate you, the reader, to become an agent of alternatives too...

3 Papanek's original quote was 'All men are designers', p.17 in Papanek, V., 1974. *Design for the Real World. Human Ecology and Social Change*. St. Albans, UK: Paladin.

4 See, for example, http://en.wikipedia.org/wiki/Social_sculpture and <http://www.social-sculpture.org>

5 'Locale' has an etymological root in 'locus', Latin for place, and is a French word defining local. More importantly, locale, is a combination of unique ingredients or characteristics which differentiate what it means to be local. Locale is a scalable phenomenon that, like the famous Charles and Ray Eames' film *Powers of Ten*, can be felt at many scales from one square metre to a hectare or more. It is also a meeting place of various communities, it is the location of specific human ecologies. So each locale has a unique combination of communities of place, communities of practice, communities of interest and communities of circumstance and other types of communities. Source: Fuad-Luke, A., 2012. *Locale*. Window874, available at <http://window874.com/2012/05/29/locale>

Editors' notes: We added editors' footnotes to interview and case study texts where we thought it would assist the reader. In the essays these are marked as such, to distinguish them from the original contributor's footnotes.

HOW TO USE THIS BOOK

The founding principle of this book is that the diverse content provided by the contributors would drive an emergent structure.

We came together in November 2013 in Helsinki to analyse the content we'd already received and to develop the language for the book (Figure 1.). We believed, and still believe, that genuine empowerment happens by locating ourselves within an alternative framework, by seeing positive disruptions to the status quo, by re-positioning what designing can do, and by focusing on Our Commons (we use 'our' not 'the' to emphasise that the default ownership is 'us' and 'we', not 'them') and how we can share in better ways for the common good.

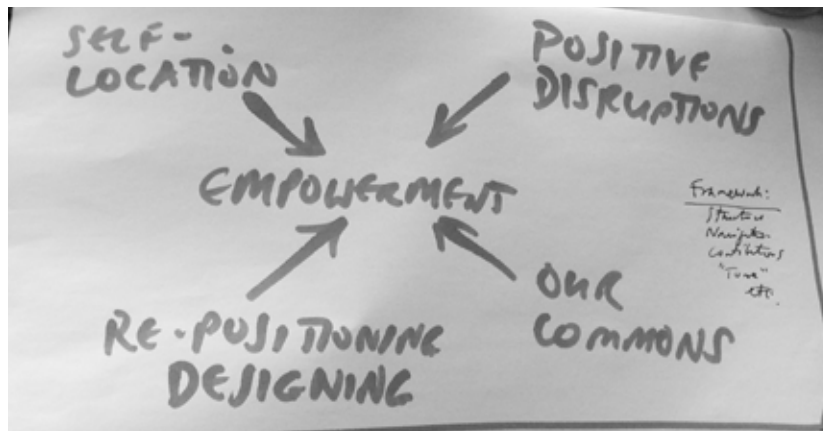


Figure 1. Some emergent keywords from the editors' conversation in November 2013. © AoA.

In February 2014 the editors came together in Berlin to further explore and understand the content we had already received and do an initial mapping of its relations (Figure 2.).

These two meetings led us to create an active vocabulary and initiated a conversation about whether we could analyse and synthesise the content into a more constructive and practical arrangement that would inspire. We understood that people were acting and taking action around different focal areas – we called these areas 'alternative worlds' (see next page). They are/were developing [design] practices that help encourage a transition from the existing situation to a preferred situation (to borrow from the words of Herbert Simon¹). We analysed these prac-



Figure 2. The editors having a 'eureka' moment with Cathérine Kuebel in Berlin, February 2014. © AoA.

tices and have presented them as 'Stuff that works' (p.462). These practices range from those based upon eminent common sense to ingenious ways of encouraging transformation. We hope you will recognise some, and add your own. We also observed that people were talking and writing about their 'worlds' and 'practices' with new language, so we created an 'evolving lexicon' (pp.22-37). We hope that these collated 'insights', 'practices', 'emergent words' and, of course, the detailed content from our contributors, will stimulate you, the reader, to reflect and re-think your own position. We hope that flipping between this synthesis of the content and the actual content will provide its own stimulus. In short, we hope that this extra joining of information at a 'meta' level, might provide some magic ingredients to generate, nourish and sustain alternatives.

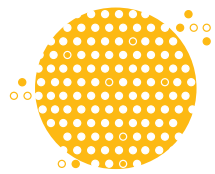
Map of contributions

Each contribution in this book was assigned to a 'primary' world with other worlds as 'secondary' influences to see how the different projects, initiatives and philosophies interweave and cluster. The outcome is a 'map of contributions' (pp.20-21) which allows a different way of navigating through the book and making sense of its contents. It serves as an addition to the traditional list of contents and invites you, the reader, to experience the book in many different ways: non-linearly, according to chapter, interest, theme, format and so on. Enjoy the journey.

¹ Simon, H., 1996 (1969). *The Sciences of the Artificial*. Cambridge, MA: MIT Press.

ALTERNATIVE WORLDS

We believe that alternatives are best created and designed together by thinking differently and making those thoughts tangible by taking action. The diversity of contributions in this book highlights that there are many intertwined worlds with which we can engage. We offer working definitions of these worlds, without asserting them to be either final or complete, hoping that you will add your own. We believe that by combining these worlds in different ways, we can 're-design our realities'.



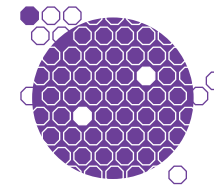
Thinking – the diverse acts and practices of discursive activities, free association, ideation, inquiring, intuiting, philosophising, reasoning, reflecting, ruminating and synthesising individually and/or collectively as a means to nourish our human, social and other capitals.



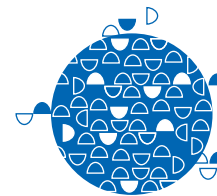
Learning – the activities of acquiring, giving and exchanging skills, knowledge and experiences by teaching oneself and others, and learning from each other to encourage healthy social discussion, evolution of new wisdoms and activation of hidden capabilities.



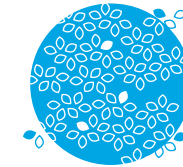
Sharing – acts, actions or reciprocal relations between individuals, groups and communities to enjoy and enrich something together (time, objects, experiences, etc.) based on respectful mutuality, interdependency, openness and generosity.



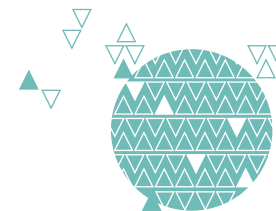
Making – the act of bringing a form, process, service or experience to life, while realising individual and/or collective creative human potential and capital.



Intervening – introducing activities and/or artefacts to engage, by consensus or disruption, to stimulate dialogue and actions towards a common purpose as a means to better our world.



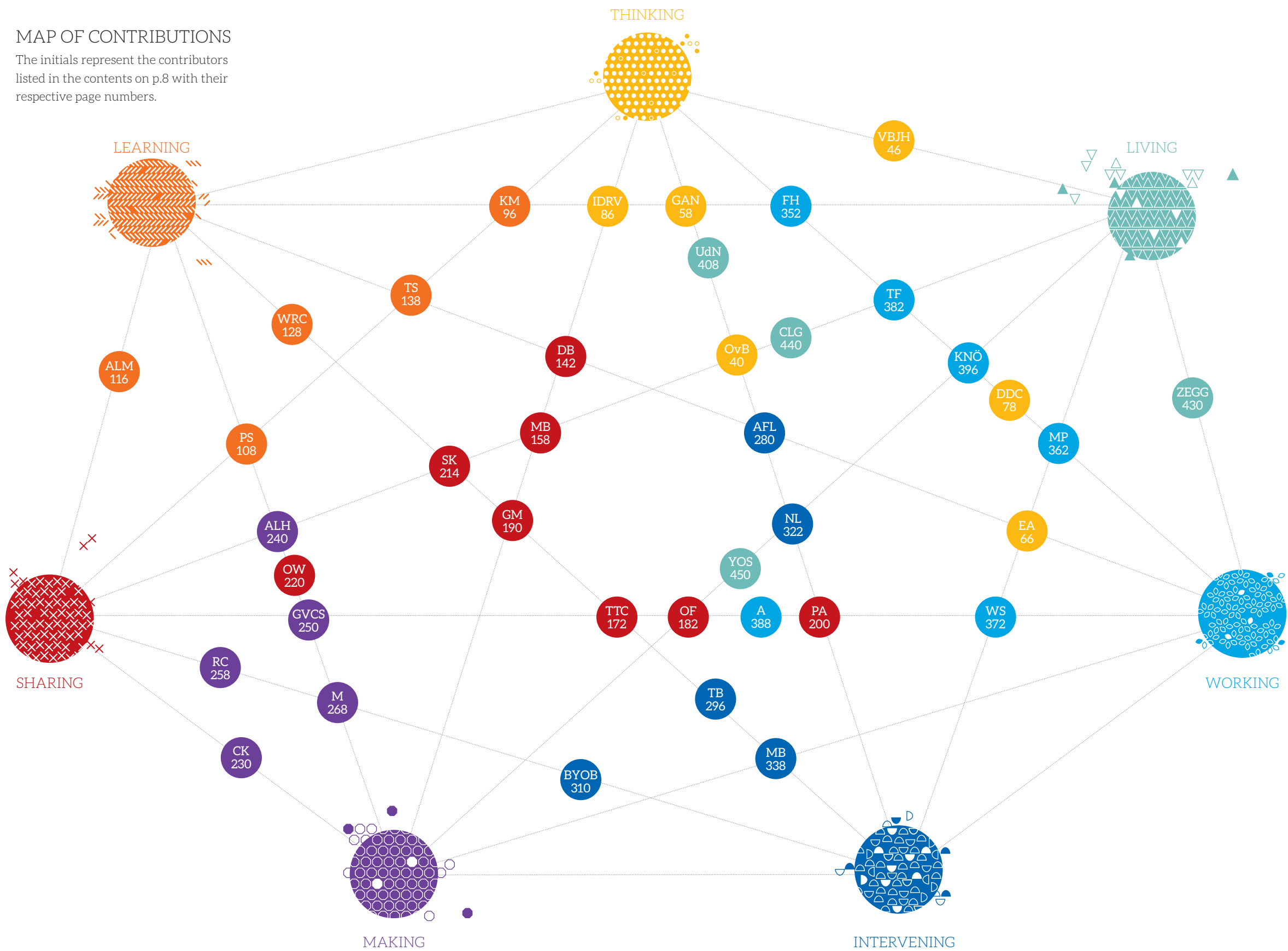
Working – modes of being active, of acting, operating, functioning, organising and practicing to achieve something, to earn or make a livelihood, to be a valued contributor to society, its individual members and to oneself.

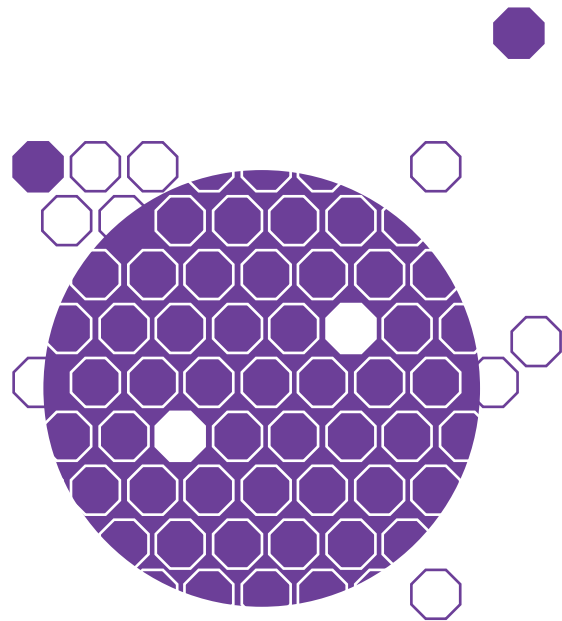


Living – human activities of alive-ness, being-ness, existences, livelihoods and other ways of being that affect our individual and collective condition, our thriving and flourishing, and our natural, spatial, physical, mental, spiritual and other dimensions of being in the world.

MAP OF CONTRIBUTIONS

The initials represent the contributors listed in the contents on p.8 with their respective page numbers.





MAKING

The act of bringing a form, process, service or experience to life, while realising individual and/or collective creative human potential and capital.

Cindy Kohtala is a doctoral researcher in Aalto University, Department of Design, where she is examining the environmental issues in the maker movement and how they are addressed in Fab Labs. She teaches Design-for-Sustainability, Product-Service System design and Sustainable Consumption and Production. She is also a long-time writer, urban activist and hobbyist maker.

Essay

SYSTEMS OF RESILIENCE: A DIALOGUE ON DIGITAL MAKERS, MAKING AND THEIR PRINCIPLES OF CONDUCT

by Cindy Kohtala

Digital fabrication technologies such as laser cutters, milling machines and three-dimensional (**3D**) **printers** are increasingly available to citizens, especially in devoted spaces known as **fab labs**, **hackerspaces** and **makerspaces**. They are the low-cost equivalent of industrial prototyping equipment and enable **'making'** and **'fabbing'** activities¹ where hobbyists, professionals, inventors and the curious can experiment with and realise their own ideas. There are many different types of makers and maker communities today, each drawn together by different motivations, missions and even manifestos.

This dialogue departs from where Jane Jacobs left off in *Systems of Survival* and *The Nature of Economies*,² bringing the various maker characters to the same table to discuss the present and future of making.

Raissa's Summons

As Raissa had extended the invitation, she made sure she was first to arrive in the kitchen at the **co-working space**. She was setting out coffee mugs when Grosvenor arrived, with Harriet in his wake. Hugh entered with a broad smile, tipping his hat at the others; Fernanda came in at that moment and imitating Hugh's gesture, causing them all to laugh. They all shook hands smiling and then sat down at the table, looking at Raissa expectantly.

When all the coffee had been poured, Raissa started: "I know you're wondering why I called you here today; there is something I want to discuss with you all." She

¹ Editors' note: See www.fabfoundation.org and <http://fablab.aalto.fi>.

² Jacobs, J., 1992. *Systems of Survival: A Dialogue on the Moral Foundations of Commerce and Politics*. London: Hodder & Stoughton; and Jacobs, J., 2000. *The Nature of Economies*. New York: The Modern Library.

picked up the envelope that was on the table and drew out four sheets of paper. “Armbruster sent this to me last week. He said it was an assignment from Jane.” Hugh’s eyebrows rose; Fernanda looked puzzled. Raissa set one of the sheets on the table and the group bent over to examine it.

“So the questions Armbruster wanted us to discuss are about systems of organisation and sanctioned behaviour. We decided together that you four represent the right range of viewpoints.” She consulted her notebook. “In other words, what precepts govern our behaviours and what do we reward? What are your definitions of success? Why do you pursue what you do, and why do you devalue other actions? That would mean your various communities – you and your *hackerspace*, Hugh, for instance.”

On the sheet of paper was a chart:

The Commerce Moral Syndrome	The Guardian Moral Syndrome
* Shun force	* Shun trading
* Come to voluntary agreements	* Exert prowess
* Be honest	* Be loyal
* Collaborate easily with strangers and aliens	* Be exclusive
* Compete	* Take vengeance
* Respect contracts	* Respect hierarchy

“What does the word ‘syndrome’ mean here?” asked Harriet. “Jane says it means ‘things that run together’. So these are like symptoms that characterise a condition. And these two syndromes are the way we operate as humanity: we either trade things, as in commerce, or we take them and then need to protect them, as guardians,” explained Raissa.

“Well, I think hackers are more traders than takers, but I’m a bit allergic to the word ‘commerce,’” Hugh began. “Still, we collaborate more than we respect any hierarchy.”³ “But you still have some kind of hierarchy in hacking – it’s just based on competence or experience or time put in rather than on any traditional roles or ideas of status,” Fernanda offered. “At least that’s how it is in my *makerspace*.” “And you certainly don’t shun trading in your space!” Harriet exclaimed. Fernanda looked at her quickly. “What do you mean?” “I thought makerspaces were supposed to be free and open and there to provide access to technologies to everyone. Yet you make good business from selling services and holding workshops, so everyone learns how to use a laser cutter and is no longer interested in actually doing anything with their hands,” Harriet said, rather defensively. She straightened her shoulders

³ For further reading see: Powell, W. W., 1990. Neither market nor hierarchy: Network forms of organization. *Research in Organizational Behavior* 12, pp.295-336. Available at: http://web.stanford.edu/~woody/papers/powell_neither.pdf.

and continued: “And then everyone prints out plastic Yodas and Medium Density Fiberboard (MDF) press-fit boxes and all the waste and off-cuts just go straight to landfill – along with those Yodas and boxes that no one actually needs. And as soon as the next version of the technology comes along, you ditch it and replace it with the newest and shiniest...”

“You have a point, Harriet,” Hugh intercepted her flow of words with his hand, “but don’t forget that learning how to use the equipment is a valuable learning experience in and of itself. It can teach us not only about how mass-produced products are made, but also how to repair them. And a 3D printer in a hackerspace, ok, it is of limited use, but it’s really useful to know how to *make* one.” “But how many makerspaces in the future will actually stick to those Do-It-Yourself (DIY) self-assembly machines? The more they evolve, the more complicated they become, but they also become easier and easier to use. They become just like the closed boxes personal computers are today – easy to use but impossible to control. And then there is no more learning of any kind, not to mention any kind of traditional making,” Harriet countered.

IT CAN TEACH US NOT ONLY ABOUT HOW MASS-PRODUCED PRODUCTS ARE MADE, BUT ALSO HOW TO REPAIR THEM

Fernanda raised her hand in protest: “I’m all for learning craft skills, and we certainly have enough hand tools and workshops on crafts in our makerspace, but some of that is just becoming less relevant in the twenty-first century. Why should I handcraft a plywood box with bad-fitting joints when I can print out a press-fit one that doesn’t even need any glue? And especially, why should we protect occupations that are clearly obsolete? You know, we used to have people whose only job was to go out to the lakes and cut ice and bring it into the cities and sell it. We don’t have those jobs anymore. Should we preserve ice-cutting just for the sake of tradition?”

Harriet shook her head. “Maybe we should think a lot more about what is worth preserving and what traditions are worth sustaining. Maybe people need to think a little longer about what they’re fabricating before they just press the button. I’ve been thinking a lot about 3D printers, because they’ve been so much in the news lately. And it’s quite interesting how this idea of the 3D printer has been sold to us.” She took a sip of coffee. Grosvenor took advantage of the break in the conversation: “What do you mean?”

“It’s like we’re being sold the idea that we weren’t able to do *anything* before 3D printers came along. Their slogan should be, 3D printers: MAKING MAKERS.” Harriet gestured in the air as if a big banner was hanging there in the air over their heads. “And people have such cultural amnesia, thinking that this is such a revolution and we’ve never seen this kind of transition before. Back in the 1950s, for example, electric power tools were only sold to industry or to workshops and craftsmen. They were high quality and durable, perfect for professionals, but they were *only* sold to these people. So the tool brands started to think about how they could sell more. They started to develop multi-functional tools, additional power

units, components and widgets, and all those new tools were meant for ordinary people because they were quite cheap. The other ones were quite expensive because they had longevity. But to sell to ordinary people the companies had to sell the *idea* of you being a craftsman even if you weren't. You could be equal to professional craftspeople by having this tool. And this is the same idea that is being sold to us now: you can be a maker by having this 3D printer." Harriet grabbed the sheet of paper. "So at least in terms of ethical behaviour and responsible consumption and preserving valuable skills, I'd definitely promote 'Respect hierarchy' and reject 'Compete'. 'Be exclusive' if it means we can preserve endangered skills. What's going to happen when we see the next energy crisis? All those fabrication tools are going to be silent and no one will remember how to use a hammer." She sat back in her chair.

"Hmm," Fernanda said quietly, "I don't really know about that. Some stuff coming out of the Maker movement is undeniably crappy, but we are also seeing some excellent ideas that just couldn't have emerged earlier because of hierarchies⁴ and the silos separating engineer and scientist and craftsman." Grosvenor snorted: "Oh, yes, excellent stuff like DIY pharmacology. That's really safe. I would also go for hierarchy⁴ and being exclusive if it also means preserving natural resources, to add to what Harriet was saying."

"I'm surprised, Grosvenor," said Hugh, after a somewhat awkward pause. "I'd have thought that you *guerrilla gardeners* and *open source ecology* crowd would rather promote contracts and agreements rather than capitulating to forms of hierarchy that are, let's be frank, completely obsolete in this day and age. I mean, aren't you actually breaking city rules rather than being loyal to them? Shouldn't we have globally binding carbon cap agreements rather than some flimsy reliance on ideas of honour and loyalty?"

Before Grosvenor could answer, Raissa raised her hand. "I think this could be a good point at which to introduce the next set of precepts." She put another sheet of paper on top of the first. This time the chart was expanded:

The Commerce Moral Syndrome	The Guardian Moral Syndrome
* Shun force	* Shun trading
* Come to voluntary agreements	* Exert prowess
* Be honest	* Be loyal
* Collaborate easily with strangers and aliens	* Be exclusive
* Compete	* Take vengeance
* Respect contracts	* Respect hierarchy
* Use initiative and enterprise	* Deceive for the sake of the task
* Be open to inventiveness and novelty	* Be obedient and disciplined
* Be efficient	* Treasure honour
* Promote comfort and convenience	* Show fortitude
* Dissent for the sake of the task	* Adhere to tradition

"Well, this gets more interesting," said Hugh, leaning forward and putting his finger on the left side of the chart. "I'd definitely agree that fabbing and *hacking* is all about inventiveness and novelty..." "Not to mention initiative and enterprise," Fernanda interrupted. "...But being efficient? That's the last thing that's on a maker's mind. Promote comfort and convenience?" Hugh laughed. "Have you actually *visited* my hackerspace or tried to use any of my inventions lately?" he said dramatically.

Grosvenor smiled, and then asked Raissa, "What does dissenting for the sake of the task mean here?" "Jane was referring to how commercial life can improve things or develop completely new things: dissenting from the way things were previously done, whether this is in production or distribution or whatever," she explained. "And deceive?" pursued Harriet. "Well, it helps, for one, to exert prowess: to both have power and use it effectively." Raissa checked her notebook. "It comes down to us from our previous existence as hunters – the need to deceive in order to secure the prey, the cheese in the mousetrap. For survival, hunters need to understand the end goal and commit to achieving it, so does the military, and that's why tradition, obedience and hierarchy are so important to guardians."

Grosvenor frowned. "I'm not sure my network of growers fits in either of these categories. I mean, I was talking earlier about the importance of guardians and the need to protect natural resources and the public commons, but these precepts don't fit what we're actually doing." "Go on," Raissa nodded. "Well, as you know, we work a lot with developing *urban agriculture* and gaining a better understanding of our relationships with the natural ecosystems. Fernanda's *fab lab* is a perfect place to play with prototypes of stuff we need that we just can't find in the normal marketplace. And it's been great for learning stuff, as Hugh said. But it took a long time before we even knew what we were doing and could actually achieve things. Once we recognised the pattern, how we could best work together, we could identify the barriers and opportunities of working as a self-organised group. And we knew our skills, what each person was good at."

"So not actually a hierarchy," Hugh suggested. "That's right. In fact, because there is no hierarchy, if something doesn't get done there is no one to blame," answered Grosvenor. "'Get done', in terms of what? What goals do you have and how do you decide on them?" asked Fernanda. "We tend to pick an idea from society that we would like to learn about," Grosvenor spoke slowly, examining the chart as he spoke. "We do research, but because we are not trained in those particular fields, for example, biology, then we go through sometimes a long research process to learn what we need to learn. Or we might need to learn how to weld. Or even act! So then – for example, with beekeeping – we come to understand what we already know and what we need to learn, we know our network, so we know what skills

⁴ Half of what she says is what a real Helsinki maker actually said; his point was that makers are ignoring the previous restrictions on what professions were doing and were 'allowed' to do. (And other makers would add that people of different backgrounds mix in a Fab Lab, and that creates new ideas/innovations.) I would call that mix of modes, as Bauwens does, a 'heterarchy' rather than a hierarchy.

we already have. Then you can pick out the jobs that you can do or want to do, and, as I said, if something is left out there is no one to blame.”

Fernanda appeared sceptical: “I know exactly what you mean, but it’s a really hard way to work and it can actually end up being really exclusive because there is such a high threshold.” “What do you mean?” asked Raissa. “I mean, people from ‘normal’ life are so used to company hierarchies and meetings and how decisions are made – you stick them in that kind of *Bar Camp* or *unconference* style meeting, and they’re totally lost. It is meant to be open and accessible and democratic, but it actually scares some people away. Even in the fab lab: because it isn’t a normal print shop where you walk in and pay for a service, people just don’t get that you’re supposed to do your stuff yourself, that’s the whole idea. If they want to learn something, they want to be given their role and the instructions. They don’t want to self-select, not to mention continuously self-organise. Hence the high thresholds,” Fernanda concluded.

“Yeah, there are a lot of growing pains,” Grosvenor admitted. “We did that energy harvesting from waste project a couple of months ago; afterwards half the participants said it was a nice week, but the way we got there was total chaos. Some participants said, ‘Please don’t do it again’. The other half of the group said, on the contrary, ‘Look at what we achieved. We managed to get everything we wanted’. So I think we’re getting better at chaos.” Hugh nodded: “It’s a critical time – we’re moving from an industrial era to a peer-to-peer era. We need to learn how to operate together.” “Especially in an environmentally responsible way, not just socially conscious,” Grosvenor added. “Everyone is so focused on the *information commons* – they totally neglect the *public commons*.”

Raissa looked around the group to see if anyone had anything further to say. She pulled out the third sheet of paper from the envelope. “This is now the whole chart,” she said.

The Commerce Moral Syndrome	The Guardian Moral Syndrome
* Shun force	* Shun trading
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* Compete	* Take vengeance
* Respect contracts	* Respect hierarchy
* Use initiative and enterprise	* Deceive for the sake of the task
* Be open to inventiveness and novelty	* Be obedient and disciplined
* Be efficient	* Treasure honour
* Promote comfort and convenience	* Show fortitude
* Dissent for the sake of the task	* Adhere to tradition
* Invest for productive purposes	* Dispense largesse
* Be industrious	* Make rich use of leisure
* Be thrifty	* Be ostentatious
* Be optimistic	* Be fatalistic

“Now I’m confused again,” Hugh said. “As a society I don’t think we should operate according to what looks like clear consumerist, profit-led capitalism,” pointing to the left, “but neither am I attracted to what looks like Versailles on the right.” Raissa nodded: “Yes, remember that Jane meant these as the characteristics associated with the system of commercial life on the one hand, to support daily needs, and the system set up around territorial responsibilities, on the other, to combat corruption and enemies. What is a virtue on one side becomes a vice on the other, so if you’re operating in a particular syndrome some consistency is warranted – and rewarded. A mix can result in a confused morality, what she calls ‘monstrous hybrids’, such as organised crime or when governments try to operate like private corporations.”

Fernanda interrupted her: “I have to disagree a little with Hugh. Being industrious and thrifty and inventive – and profit-minded – is the only way makerspaces are going to survive. You can have your lofty ideals, but ideals don’t pay the rent. I don’t see the problem people have with making money in the Maker movement – what is so wrong with commercialising it? Why shouldn’t we brand it and commoditise it so that it *really* can be open access – get rid of those high thresholds I was talking about earlier? Make the equipment easier to use so that – really – anybody can use it, even my granny? So what if the equipment producer is a big multinational. Wouldn’t *distributed production* be a better economic model than mass production? More empowering, and maybe even more environmentally beneficial, Grosvenor?” she challenged.

Grosvenor looked like he was trying to control an outburst. “Distributing and democratising is not the same thing as sheer profiteering! I thought fab labs were all about *open source*. The more the Maker movement is exploited by those big corporations, the more proprietary the equipment is going to be – and we’re going to end up in the same mess we are now with mass production supply chains!” He took a breath, and then looked at Raissa. “Surely there are other ways. Aren’t there other hybrids that are not monstrous?”

“Well, there are examples of commercial-guardian symbiosis that can escape mutual corruption, *cooperative lending systems*, for one, but Armbruster and I agree that we just don’t understand them well enough yet, and there are so few examples existing to learn from,” Raissa conceded. “But because this is a good point in the discussion, and also because we are running out of time, I’d like you to have the final discussion based on this.” She pulled the final sheet from the envelope:

IT’S A CRITICAL TIME – WE’RE MOVING FROM AN INDUSTRIAL ERA TO A PEER-TO-PEER ERA. WE NEED TO LEARN HOW TO OPERATE TOGETHER.

MARKET	HIERARCHY	NETWORK
* Shun force	* Shun trading	
* Come to voluntary agreements	* Exert prowess	
* Be honest	* Be loyal	
* Collaborate easily with strangers and aliens	* Be exclusive	
* Compete	* Take vengeance	
* Respect contracts	* Respect hierarchy	
* Use initiative and enterprise	* Deceive for the sake of the task	
* Be open to inventiveness and novelty	* Be obedient and disciplined	
* Be efficient	* Treasure honour	
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* Dissent for the sake of the task	* Adhere to tradition	
* Invest for productive purposes	* Dispense largesse	
* Be industrious	* Make rich use of leisure	
* Be thrifty	* Be ostentatious	
* Be optimistic	* Be fatalistic	

Fernanda sat forward and then hesitated, but the others nodded: “For one thing, the speed of markets is much better for today’s society than the pondering, excruciatingly slow pace of government decision-making. If something happens, you need to react and it’s better to react fast. Networks are much more resilient and agile.” “What about trust?” asked Harriet, who had been strangely quiet. “Don’t you need trust in both syndromes?” Grosvenor pointed out. “Or in all three types of organisation?”

“What is virtuous behaviour when you are operating in a network?” Raissa prodded. “I think in networks you are shunning self-interest,” Harriet offered. The others nodded. “You want to share and collaborate, not compete,” she continued.

“So you don’t esteem the worth of contracts, you work to build your reputation instead,” Hugh added. “You work in an open source project and you try to earn respect and polish your reputation in that network by contributing high quality work. Property rights are not important, and sanctions are normative, not legal, so contracts are rather irrelevant.” Harriet wrinkled her brow: “So you mean quality is ensured through reputation maintenance? For artisans, that is also true, but it’s more through discipline, and honour, satisfying the idea of what a guild would judge as quality. If everyone can be a designer, or maker, or artisan, like in a maker network, then I still think quality goes out the window.”

“But it’s as much about the means as well as the end, in sustainability networks, anyway,” countered Grosvenor. “If you’re working in open source ecology projects, the end goal is always moving and you always have to be in learning mode. Quality of the solution is how well it fits your resources at that moment and how well it actually accomplishes what you were hoping for.” “That’s why efficiency isn’t a relevant value for a network,” Fernanda pointed out. Hugh jumped in: “Maybe it should read, ‘Be experimental’ instead of ‘Be efficient.’” “Or ‘Be reliable?’” Harriet said. Grosvenor smiled. “Invest in strengthening ties,” he said. “Trade know-how,” Fernanda offered. “Donate for the sake of the task,” Hugh grinned.

Raissa closed her notebook and the group rose to their feet, taking their cups to the sink. “If you are so inclined, we could continue these discussions on this topic,” she said, as Hugh reached for her cup and washed it. Everyone nodded, then looked at each other, embraced and parted ways until the next meeting.

The characters in this fictional dialogue represent various perspectives in today’s Maker Movement, from fabbers – enthusiasts of digital fabrication and especially its technical, commercial and entrepreneurial opportunities, to hackers and fixers promoting a better understanding of mass produced products as well as sheer invention, to craftspeople and artisans, to the growers who seek to exploit digital fabrication but in more ecologically oriented urban practices. Several passages are actual quotes spoken by real makers in the European (mostly Helsinki) maker scene. Raissa is the researcher who brought them together, and on her behalf I thank all the makers, my research subjects, for allowing me to observe and participate in this fascinating post-industrial transition.