Introduction

OSE Specifications are a metric for assessing qualities that contribute to the creation of re-localized economic production, as a basis for community prosperity in an interconnected world.

The OSE Specifications are a standard aimed at defining and evaluating the criteria of products, services, and their production - which serve to promote the creation of abundance economies, and therefore, the creation of resilient communities. Abundance exists where a community uses its resource base in such a way that human needs and desires are provided abundantly - with significant surplus to fuel cultural and scientific progress.

GVCS Specifications/Core Values

These are the values of OSE that inform the development of the GVCS which are to be embodied in the development process, in the recruitment of volunteers, in its corporate structure, and in all operations, public and private:

1. ***Open Source*** - we freely publish our 3d designs, schematics, instructional videos, budgets, and product manuals on our open source wiki. We strive to harness open collaboration with a globally-distributed team of technical contributors. We value transparency of our operations, business model, strategic development, "code" (blueprints and designs), management information, and any other aspects that can lead to distributive economics. Commentary: Our main goal is to contribute to the creation of open culture, where sharing and collaborative development is valued over greed and exclusiveness. This type of culture promotes life and growth, as opposed to fear-based aggressiveness. Open source culture includes publishing 'early and often' to expose errors and dead ends – where rapid growth occurs by adjusting to failure. Failing early allows solutions to be found early. Failure and dead ends are abundant in life – and the mark of a successful individual is their ability to respond to failure in a manner that leads to growth and transcendence.

2. ***Distributive Economics*** – We publish our business models openly so that others can replicate any enterprise. "Everything we know, you know." This is intended to generate truly free enterprise and life-giving competition, as opposed to monopoly capitalism or militarism. In one word - distributive economics are called sharing. In the political sense, this phenomenon may be described as decentralization engineering. It should be noted that information should be free, because the cost of distributing information is negligible. However, atoms or physical objects are not 'free' in the same sense, as significant human energy is required to produce and distribute physical goods.

3. ***Low-Cost*** - The cost of buying or making our machines are, on average, 5-10x cheaper than buying from an industrial manufacturer- including an average labor cost of $25 hour for a GVCS fabricator.

4. ***Modular*** – Components of the GVCS function as interchangeable modules. Motors, parts, assemblies, and power units can interchange, where units can grouped together to diversify

the functionality that is achievable from a small set of units. To see how the different parts fit together.

5. ***User Friendliness*** – Design-for-disassembly, simplicity, transparency, and open source documentation allows the user to comprehend, take apart, modify, service, maintain, and fix tools readily without the need to rely on expensive repairmen.

6. ***DIY*** - The user gains control of designing, producing, and modifying the GVCS tool set. DIY is intended to promote the maker, doer, creator, non-consumer culture – in people who are interested in creating their own custom environment as opposed to accepting massively-standardized options. DIY, however, does not imply substandard or economically-insignificant production - as the product still could and should have industrial efficiency and high performance. High performance is not inconsistent with DIY culture, as long as the enabling tools and techniques are accessible. There is no limit to the tooling available in the DIY context - as long as the tools are appropriate, open source, and user-centered.

7. ***Closed-Loop Manufacturing and Material Cycles*** – Any product should never be a waste, but a feedstock for another process. Our project relies on recycling metal into virgin feedstock for producing further GVCS technologies - thereby allowing for cradle-to-cradle manufacturing cycles.

8. ***High Performance*** - Performance standards must match or exceed those of industrial counterparts for the GVCS to provide a comparable or better standard of living. Note that this is not inconsistent with DIY culture.

9. ***Industrial Efficiency*** - In order to provide a viable choice for a resilient lifestyle, the GVCS platform matches or exceeds productivity standards of industrial counterparts.
10. Ecological Design - Our products promote a harmonious co-existence between nature and humans. The entire process and technology must fit the criteria for being environmentally friendly and regenerative.

11. ***Resilience***– The systems that we are designing are designed to be adaptable. This arises from the ability to modify, scale and replicate the components and systems to meet requirement of constantly changing conditions.

12. ***Systems Design*** – Our designs consider the whole system of life support, in terms of how the different machines and services interface with one another. Different machines can functions as modules in a wide array of integrated systems. We do not choose technologies with peak point performance, but with peak systems performance as they fit into a resilient community integrated with its natural life support systems. Part of the systems design is synergy – in that the GVCS is intended to attain its maximum potential when all of its components are working with one another.

13. ***Lifetime Design*** – Our products are designed for a lifetime of use – via solid design, user serviceability, open source, DIY design.

14. ***Substitutability*** – Our products tend to the substitutability of common resources for less common or strategic resources.

15. ***Robustness*** – Applications of our work range from the 1st to the 4th worlds, from the city to the country, from high technology to low technology applications, at different scales of operation.

16. ***Multipurpose Flexibility*** – Our tools are typically not dedicated devices, but ones that can be used flexibly in a wide range of applications.

17. ***Best Practice*** – we focus on optimization of our products to achieve the best possible design and functionality.

18. ***Simplicity*** - We design for absolute simplicity without sacrificing performance standards.

19. ***Complete Economy*** – The work of OSE is intended to be a workable blueprint for a complete economy. Our designs are geared for a maker lifestyle on the part of community members. This is also known as a neo-subsistence lifestyle – where communities can provide all the requirements of a complete economy, such that trade is only an option, not a necessity.

20. ***Freedom from Material Constraints*** – The GVCS is intended to provide all the material needs of a community in an efficient way. This allows people to have free time, which allows people to choose their pursuits freely, beyond constraints of material scarcity. This is also known as High-Tech Self-Providing.

21. ***Division of Labor*** – Our designs focus on the needs of a modern village enjoying a high quality of life, as opposed to individual utilization. All of the technologies may be adapted to an individual's use, but division of labor is more desirable for achieving a complete economy in a community.

22. ***Scalability and Fractality*** – The GVCS tools are designed to be scalable to different sizes of operations, from individual households to agglomerations of villages (cities). The design should be fractal, in that each unit of operation should be self-contained (complete) and resilient.

23. ***Village Scale*** – The GVCS is intended to be optimized for a village scale of about 200 people, or Dunbar's number – as the number of people who can maintain face-to-face interaction.

24. ***Nonviolence*** – The GVCS is designed to provide for all the needs of a community without killing or stealing from others.

25. ***Amicable Social Contract*** – The GVCS toolset is designed to promote a just, equitable, and life-giving social contract for a village community living with the GVCS. The qualities of the GVCS are intended to promote good relationships between a village-scale group of people. The social contract is based on collaborative division of labor, where productivity of individual

members contributes to the well-being of the whole community. The basic requirement is lifelong learning and regenerative stewardship of land and resources, along with non-violence.

26. ***Community and Family*** – OSE promotes the reconnection of people to one another as a result of increased freedom from material constraints. This reconnection also includes reconnection to one's true needs, to one's family, and to the global family of all living creatures.

27. ***Proven Techniques*** – We focus on time-proven concepts, techniques, and technologies. All are principles are generally regarded as common, historical knowledge or wisdom learned through eons of civilization.

28. ***Cross-Disciplinary Integration*** – We provide cutting edge practice in so far as they are integrations of knowledge from many fields and disciplines. We value unabashed boundary-crossing and cross-fertilization, drawing from as many cultures, regions, and time periods as possible.

29. ***Sufficiency*** – Our design focuses on sufficiency – i.e., we understand that we need to reach a certain level of performance, and that is sufficient. This is distinct from continuous addition of frivolous bells and whistles.

30. ***New Economics*** – One aspect of OSE is that it allows for the creation of a resource based economy, where true wealth is based on the value of natural, primarily local resources, where wealth is created from adding value to natural resources by transforming them to human-usable form.

31. ***Flexible Fabrication*** – This is a mode of production distinct from specialization. In flexible fabrication, general purpose machinery is used by highly skilled workers to produce a wide array of products – as opposed to specialized machines, operated by highly deskilled workers, producing only a single item. Our means to flexible fabrication is the open source fab lab.

32. ***Technological Recursion*** – The flexible fabrication technology also allows producers to produce more complex machines and parts. This allows a local community to, eventually, attain the capacity to produce any technology known to humankind.

33. ***Industry 2.0*** – This is a concept that flexible fabrication, combined with a collaboratively-developed, global repository of down-loadable product design has the potential to become the new engine of production. This is particularly useful towards relocalization of productive economies and towards distributive economics. Industry 2.0 is a direct goal of OSE.

34. ***Permafacture*** - ecological fabrication with lifetime design.

35. ***Local Resources*** – The GVCS is fueled by local resources, such as water, sunlight, rock and soil, via technological recursion.

36. ***Replicability*** – OSE work is intended to be replicable, self-replicating, and viral. The open

source nature, low-cost, and simplicity of our designs are key to this.

37. ***Meaning*** – Technology, when used appropriately, is intended to reconnect one to meaning, and to natural ecosystems. Reconnection to nature can occur from constant interplay between humans and nature, as natural resources are stewarded responsibly to meet human needs by benign processes.

38. ***Appropriate Automation*** – We favor automation of production or other tasks whenever repetitive, difficult, dangerous, or otherwise unrewarding tasks can be carried out with computer assistance instead of human labor. We favor this if this truly increases quality of life and reduces toil, without loss of meaning, violence, or other negative systems consequences.

39. ***Long Term Approach*** – OSE is seeking long-term solutions on the 100 year scale into the future, not Band-Aids on superficial issues. We are looking at issues for the long haul, with lasting peace and stability for humanity as the goal.

40. ***Network*** – OSE is interested in creating a network of like-minded communities that follow OSE values, such that cultural exchange can happen between different communities. This refers to the 1000 Global Villages concept - which serves as model communities that influence the rest of the world in a positive way. This brings in an element of mobility into the community social fabric.

41. ***Model Community***- The OSE Village with the GVCS are intended to provide a positive, best-practice example of integrated, meaningful lifestyles along the principles of abundance and prosperity - as a shining point of light to inspire people in many walks of life.

42. ***Land and Resource Stewardship*** – Each OSE facility functions as a land steward. Land is not for sale, but is preserved for ever as a permanent site of human heritage and cultural growth. Resources are stewarded so that they improve in quality with time, as opposed to becoming depleted.

43. ***Iconoclastic Innovation and Transformation*** – OSE favors iconoclastic approaches which address issues at the root, not symptoms – towards addressing pressing world issues (war, poverty, corruption, distribution of wealth, disease, etc.). We are not looking for mass-culture compromises swayed by political or special interests, but for authentic solutions based on virtues common to all humankind.

44. ***Absolute Creative Approaches*** - We do not promote destroying anything, just creating a better solution that makes the old paradigm obsolete. We do not hate any group or politic, because we are all in this together. We believe in positive psychology, inspiration, and bringing out the virtues in people – by appealing to their absolute creativity.

Methods and Strategic Approaches

1. ***Open*** – Open Source Ecology endorses open source culture of sharing and collaborative

development throughout, towards the end of distributive economics. This applies at the level of our process, organizational structure, business and products. On the process level, we encourage others to collaborate openly, yet respectfully of other developers' needs. To this end, we are aiming to create collaboration structures and platforms that allow others to collaborate freely, and to publish meaningful results openly. We seek to design all of our operations to be consistent with this principle. We encourage everybody on the development team to be transparent about their work, and to ask openly for collaborative assistance. We encourage everybody to give information away for free – as the cost of sharing information is zero.

2. ***Distributive Economics*** - We recognize the challenges of sharing information openly – in that someone else can 'steal' an idea and capitalize on it. We address this issue by encouraging people to publish openly, so that prior art makes information accessible to all, and therefore, making information un-patentable and therefore incapable of being appropriated. In order to capture value, we encourage humans to organize around information resource commons, while building in a physical, productive infrastructure to convert information into the substance of modern-day living via benign, industrial processes

3. ***Notes on Patents***. These make sense only in a world based on scarcity. We encourage each community that adopts OSE principles to build complete, open source, economic productivity – where true wealth can be generated easily. In this case, what is the need for patents? If a community can provide all of its needs - then we enter into the concept of sufficiency. State-of-art point technologies that optimize one feature of performance are not necessarily useful for an ecological tool set. We are interested more in overall, or ecological, performance - as opposed to point performance.

4. ***Creative Approach*** - There is a number of movements that cater to fears regarding the end of the world or other comprehensive collapse scenarios. Our approach is intended to empower people from a perspective of what is a-priori favorable and benign - whether or not any cataclysm is on the horizon. IT is important to underscore that we focus on positive psychology and transcendence, which we favor over an approach based on fear, because fear-based response is not as likely to create long-lasting solutions.

5. ***Modular, lifetime design*** – The core of lifetime design is design-for-disassembly and modularity. Design-for-disassembly is synonymous with user ability to 'look under the hood' of a certain device. Modules are interchangeable units of functionality.

6. ***Closed Loop Manufacturing*** – OSE endorses closed loop eco-industry, where waste does not exist as the waste is turned into feedstock for other processes.

Components of OSE Specifications

OSE Specifications cover a number of aspects of economically-significant production, covering the development and production aspects:

- Economic significance
- Open documentation
- Distributive economic nature
- Transformative nature of enterprise
- Systems design
- Transparency and participatory nature of production model and development process
- Creation of post-scarcity levels of production
- Simplicity and low cost
- Lifetime, modular design; design-for-disassembly; design-for-scalability
- Localization of material sourcing and of production
- Ecological qualities
- Economic Feasibility and Replicability
- Minimization of waste, overhead, and bureaucracy
- Product Evolution
- Fabrication Facilities
- Open Franchising or Open Business Model
- Startup Assistance

Economic Significance

Economic significance refers to the overall economic importance of a given product or service. The assumption here that economic significance is defined on the basis of relevance for meeting the material needs of humans. For example, fuels and tractors constitute multibillion dollar global markets, and are thus economically significant. On the other hand, plain discussion may have little economic significance, if is not more than hot air.

Open Documentation

Open content

We begin with open content as a foundation – content that is free of restrictions on use or dissemination. The optimal license for content that we promote is the public domain. This keeps it simple from the practical and legal perspective. We have a philosophy that the users should decide for themselves as to how to use the information. We support open licensing. We are not interested in policing.

We believe that to claim something as ‘one’s own’ is arrogant, as it does not address the fact that any single ‘invention’ is simply a small additional to a large pool of existing knowledge that made the ‘invention’ possible. We believe that there is no point in trying to police the patenting of forks, as are simply so many different forks or development paths that could be taken nonetheless: creativity is unlimited. We believe that the more we contribute to the commons, the more new content will be generated.

Readily accessible or downloadable documentation and design

Distributed information in the computer age is made most readily accessible if it is available for immediate download from the internet. If material is available in electronic format, it may be manipulated or utilized readily with software tools. For example, digital designs may be edited or used immediately in CAD or CAM. If CAM formats are available, then data at one point in space can be readily transformed into a physical object at another point in space, in the presence of digital fabrication capacities.

Design Drawings

This is a start towards replicability.

Bill of Materials (BOM)

Next to design drawing, the BOM is the second most important towards replicability. This is a detailed listing of all parts used, sourcing, and prices. Availability of the BOM saves the potential builder countless hours of searching for part availability and for reasonable pricing. Relevant comments should be made alongside the BOM, such as, quality or reliability of certain vendors, their quality of service, and any other useful comments. The only difficulty with a BOM may be that if the audience is global, sourcing may not be readily available or shipping may be prohibitive, so local substitution of parts must be made. If a BOM is available, then the building of a specific product can commence immediately: there is no guessing which parts would work, or which supplier is reliable.

At best, the process for one-off individual production can be as follows:

1. an individual decides that they need a certain product
2. they look that product up on an online repository of open source products, download fabrication procedures and parts lists
3. purchase parts locally all on the same day if they are located in an urban area where many suppliers are available
4. and start building a certain project.

All these steps can potentially be completed in one day when the BOM is available. Open design drawings and plans are only one aspect, but the critical point to enabling immediate production is the availability of BOMs, as the last step prior to actual fabrication.

Under this scenario, a realistic possibility emerges that a large number of individuals discontinue purchasing slave goods from who-knows-where, and begins to fabricate them locally. This is feasible on the individual level for anyone equipped with a robust Fab Lab, or when small groups (a few to a dozen people) get together to purchase low-cost, open source, digital fabrication equipment. These people could operate out of backyard garages, rented workshop spaces, co-working facilities, or other community supported manufacturing operations. The types of products that yield themselves particularly to this type of production are those items that fall beyond the class of disposable goods, and are more or less long-use items. These items include electronics, mechanized tools, semi-heavy machinery, green vehicles, and renewable energy systems, among

others.

Tools

CAD by Mariano Alvira and SKDB are two different tools that can improve and automate different aspects of handling a BOM.

Free information

If information is free, it is most easily accessible.

Distributive Economics

Distributive economics refer to economic models that tend to distribute economic power as opposed to monopolizing this power.

Transformative Nature of Enterprise

We are interested in transformative economics, or those economics which tend towards community and global resilience, while having qualities that, proactively, move the world away from: concentration of societal power; perennial warfare; loss of meaning; bureaucracy; globalization of economic activity; newspeak; loss of freedom; and so forth.

Systems Design

Systems design refers to design of economic paradigms which consider the whole human and natural ecosystem, and the relationships involved, not just an isolated part of that system. For example, non-systems thinking may lead one to conclude that a modern steam engine for transportation is a bad idea compared to biodiesel or fuel alcohol because the thermodynamic efficiency of a steam engine is two times lower than that of diesel engines or gasoline engines. The systems design perspective will claim that the steam engine is a great idea, because biomass pellets can be used as fuel, and the yield of cellulosic biomass per acre is about 10 times higher than the yield of oil or alcohol. The systems thinker will continue, by stating that if the whole system is considered, biomass pellet production is much simpler to accomplish, and that biomass-growing areas can be integrated with other uses such as orcharding or livestock raising, and the systems thinker will continue to make other claims that such an energy source allows for absolute decentralization of production and resilience of communities using the simplest means possible. The point to be made is that the systems thinker can continue to make a large number of claims on how a particular activity is desirable based on a number of systems connections, which the non-systems thinker dismisses as simply not being part of the question.

We believe that destructive non-systems thinking is so pervasive in our society, that in general, individual and societal decision-making is completely partisan, thin on logic, and downright retarded. We are including a metric for systems design in the OSE Specifications to raise awareness

of this issue, with a hope, which even if futile, attempts to bring a glimmer of light to the situation.

Transparency of Production Model and Development Process

The development process for products, and their production model, should be transparent to any interested observer. This allows for study of, input into, and improvement of the topic of interest. Transparency allows feedback loops to become active, and empowers those who are interested in learning more about a topic. Transparency is one of several qualities of a distributive, economic process.

Transparency of some program implies that the program is open to suggestions, correction, or replication of itself, stemming from an ethical foundation of the given program. Therefore, tools such as non-disclosure agreements, patents, trade secrets, and other means of protectionism are inconsistent with the creation of transparency.

Development Process

1. Participation in the development process is entirely voluntary. No compensation for alienation is necessary. As a result, the best designs are produced from the commitment of passionate stakeholders.
2. Anyone may join or leave the development group at any time
3. Collaborative development process utilizes the input of diverse stakeholders
4. Steps and results of the development process are documented

Creation of Post-Scarcity Levels of Production

Post-scarcity levels of production imply the availability of effective tools of production, including both hardware and techniques - which allow for the ample meeting of human needs. Post-scarcity levels of production also imply that local, nonstrategic resources can be utilized effectively, reliably, and with the capacity to produce significant surplus. The goal of attaining post-scarcity levels of production of something are thus synonymous with a particular community being able to transcend physical survival as a basis for evolving to pursuits beyond mere survival.

Simplicity and Low Cost

The design and implementation of any product or service should be the simplest from both the fabrication and cost perspective, such that it is the most readily replicable. Attaining simplicity is indeed the most difficult design challenge. Most people confuse high performance with extra features, because they externalize the hidden liabilities that accompany the extra features. Simplicity is synonymous with efficient resource use. Simplicity should also apply to the fabrication procedure of an object. As such, simplicity is also synonymous with low cost. The basic design philosophy of OSE is to include simplicity in design and fabrication - i.e., design-for-fabrication should be applied.

Lifetime, Modular Design; Design-for-Disassembly; Design-for-Scalability (DfS)

(Note: For mainstream reference on lifetime design, see the work of Saul Griffith)

Simplicity of design promotes the features of lifetime, modular, and scalable design-for-disassembly (DfD).

Lifetime design implies that the value of a product does not depreciate over time. This implies freedom from labor required to replace a certain product, which has direct implication for one's access to free time.

Modular design is a design which allows different modules to be used and interchanged, giving the user control over and flexibility with the object of use.

DfD means that parts of modules may be replaced readily, by taking the module apart. This has profound implications to lifetime design.

DfS is more than a design that can be scaled. It is the principle of designing things with ease of scalability as one of the features - i.e., design that can be scaled easily. This is a slight improvement over design that can be scaled, in that DfS includes explicit features that make scalability easy.

Scalability means that a basic building block can be used to make larger or smaller versions. This contributes to low cost and efficiency.

Multipurpose Modular Design

Objects should be designed so that they are made as building blocks, or modules, of other or larger objects. This way, objects can be modified. Instead of a whole object having to be replaced to add new functionality, a module may be added. This gives products a flexibility that is built into their very nature, such that the user has additional control with minimum expense. Modularity may sometimes be synonymous with inter-operability, and may sometimes be synonymous with scalability. It may contribute to lifetime design if an object is 100% modular and each module may be replaced. Modularity also means that an object may function as a building block of other objects. In all cases, modularity implies that an object may be modified. The combination of flexibility, adaptability, scalability, interoperability is desirable. These features expand the range of applications, increase lifetime, reduce cost, as well as provide and retain high value. In a material world, these are features that contribute to wealth and prosperity. In a nutshell, modularity provides large value and has low associated costs. These are good implications for individual and community well-being.

If modular design is followed, then the type of interoperability of using building blocks leads us to a Pattern Language of technology. In this pattern language, the modules or building blocks serve as the sentences of a larger language, or technology infrastructure.

Scalability

Products should be designed so that they can be scaled up or down - such as by addition of new modules, or using multiples of a part in parallel. For example, a solar concentrator system designed according to the principle of scalability should be a linear design (see Solar Power Generator), so that it could be enlarged either by lengthening or widening the array.

Localization of Material Sourcing and of Production

For community resilience, ability to use local resources is key. While it is important that a community have this ability for essential needs, it is optional, though desirable, for other nonessential items. Using local resources may necessitate that a given community have additional technology to produce a certain item. For example, if a given community does not have the conditions to grow a certain crop easily, it may want to invest in the additional technology required to grow that crop successfully. Or, if a certain community does not have adequate water, it should invest in well-drilling or roof-catchment technology, instead of importing water from unsecured sources.

A community should thus, in general, strive to increase its technology base to accommodate the provision of all essentials, and not settle on its ability to trade to procure these essentials, as trade may be vulnerable to disruption. Trade is quite acceptable for non-essential items, such as musical instruments, since disruption of such supply does not threaten the survival of a community. The level of technology in which a community is autonomous should be determined on practical grounds.

Moreover, in today's world, we already hear about 'produced locally.' We should add 'sourced locally' to our vocabulary - as resilience implies not only local production, but also local sourcing. Local sourcing typically requires that a community have additional technological infrastructure and knowhow for providing the necessary feedstocks.

Localization Levels

Level 1 - production is local
Level 2 - sourcing of materials used in production is local
Level 3 - raw material production is local
Level 4 - production machinery used in the production process above is open source and locally fabricated.

Localization applies to the creation of natural economies, or those economies based on the substance of their own, natural resources, free of supply chain disruptions.

An example of Level 3 is that local aluminum is made by Smelting aluminum from local clays.

If localization is taken to all the 4 levels, for all necessities of sustaining its population - that means that a region is autonomous, and as such, has no built-in tendency to wage war for others' resources. This is the critical point of localization - its benign effect on global geopolitical struggle. In simple words, people don't kill and steal.

Ecological Qualities

The product of interest must be good for the environment.

Economic Feasibility and Replicability

Minimization of Waste, Overhead, and Bureaucracy

The key point to the competitiveness of agile, open source enterprise is its lean structure with minimal overhead. Minimization of waste occurs by collaborative development, such that R&D costs are shared by a number of stakeholders. Competitive waste is eliminated by open enterprise giving services away rather than competing for market share, which is the ethical marketing strategy for open enterprise.

Other strategies for keeping overhead low are crowd-funding the production facility, such as in Factor e Farm's case. We also propose paperwork reduction by operating as an un-incorporated entity, with contractually-based fiscal fiduciaries and liability management, operation in the Republic via private contract, and by in-house legal literacy.

Product Evolution

A process should be in place for continued maintenance and development of a product. This could be a support community, foundation, or users.

Fabrication Facilities

Concrete Flexible Fabrication mechanism exists for others to purchase the product at reasonable cost. This is a means to assuring that a diversity of suppliers exists, such that monopoly is avoided.

Open Franchising or Open Business Model

This point defines how easily one can obtain access to replicable enterprise design. See our motivation with respect to Open Business Models, as described under the OSE License.

There are a number of details that goes into enterprise replications. These are all the standard details found in a Business Plan, plus the actual technical details that go into that plan, such as designs and CAD, fabrication procedures, BOM and sourcing information, economic analysis, ergonomic analysis, and so forth.

If you are interested in replicating an enterprise, then please inquire with us regarding practical considerations. For those interested in replication, we are looking for long-term commitment to provide the necessary due diligence of business model documentation.

Startup Assistance

Producer training is the key to assisting others to start up enterprise. Dedicated workshops should be available for others to learn the trade. We plan on offering a 2 year immersion program, which includes not only workshop skills, but agriculture, as well as theoretical and organizational aspects.

Calculation of a Metric Score

See OSE Specifications Metric Score

Summary

In summary, we aim to raise the standards embodied in open source product development efforts by articulating the possibilities. OSE Specification describes all the desirable features that can be embodied in open economic development, under the assumption that maximum advancement of distributive production is the best route to human prosperity.

OSE Specifications, as applied to technology - imply liberatory technology - defined as technology which serves the true needs of people and liberates time for other pursuits beyond survival. This is distinct from technology which controls people - where in today's world - with ever-advancing technology, people enjoy less free time.

Application of OSE Specifications to Assessing the Liberatory Potential of Technologies

OSE Specifications, when applied to production of physical products, allow for transparent assessment of the overall openness or accessibility of so-called open source products. This specification is intended to help people assess distributive production aspects of projects, by distinguishing between the various degrees of 'open source-ness' embodied in projects. This is because some projects call themselves 'open source' when only a small portion of the hardware, or even no physical portion, is open source.

For example, in the case of the OS Green Vehicle, the only open source component is an apparent design process, but the output of the design process is proprietary. As quoted from the website, 'Your rights to use, modify and re-distribute any data from this web site are limited.' Moreover, the components used in the car are proprietary. Therefore, the OS Green Vehicle has a low OSE Specifications metric score.

Access refers to use for both private or market purposes. The specification is not neutral in its goals, just as no technologies are ever neutral. The intent goes so far as to point out the nuances that contribute to a particular direction of: (1), promoting ecological integrity, (2), contributing to the highest possible quality of life, and (3), creating the widest possible distribution of wealth. Because the open source method of product development has immense potential in transforming the economic system, the OSE Specification aims to address the evaluation of positive change endorsed by various open source projects.

The scope of OSE Specifications is far-reaching: it considers all the steps necessary for a product to be user-accessible. This includes open access to relevant information and affordable access to physical products. The goal is distributive economics.

OSE Specification stipulates access to physical production facilities that can build wealth in re-localized communities. But OSE Specifications go even further: replication and viral spread of wealth - or distributive production. OSE Specifications address the means for replicating the production process itself. This includes not only self-replicating machines and systems, but the development of open business models, training materials, and apprenticeships for entrepreneurs. As the final step, we consider the availability of capitalization assistance within the metric. The capitalization assistance may be part of a new entrepreneur's apprenticeship - where, for example - real products can be made and sold within the apprenticeship. We redefine the 'capital' in 'capitalization assistance' from 'money' to 'the ability to produce just about anything required for business startup at low cost.'

Such level of commitment to the success of replication may imply a hidden agenda behind this program. Indeed there is: the greatest possible empowerment of people and communities to be the masters of their destinies, by unleashed human productivity fueled by open access to information and enabling hardware.

OSE Spec addresses access to both producers and users - both on the individual and community scale. Production could occur by do-it-yourself means on the individual scale in flexible fabrication facilities. The community scale promotes division of labor, and therefore a high standard of living. The OSE Spec addresses the availability of blueprints or digital designs, which can be used readily in manual or automated, computer-controlled fabrication facilities.