
Mobilizing Shared Capital for Grassroots Action

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Abstract

What if machines had rights? What if we treated equipment, vehicles, materials, and buildings as though they were citizens? How might this shift in valuing our capital potentially increase the productive capacity and competitiveness of our local communities and their long-term quest for sustainability? By mobilizing the capital within rural and urban locales, citizens can be empowered to develop, from the ground-up, a more sustainable community through co-operation and sharing. To support this mobilization effort we propose designing an online repository that aids local citizens in the management of their capital and its treatment at this higher ethical standard. As a foundation for design we explore Free/Libre Open Source Software (FLOSS) platforms given both the availability of relevant FLOSS projects and the ethical principles found in the FLOSS licensing and development model. We discuss general themes and current progress in a recent effort to mobilize the capital of citizens residing in a rural Saskatchewan community.

Keywords

Free/Libre Open Source Software, Sharing, Sustainability

ACM Classification Keywords

H.5.3 Information Interfaces and Presentation: Group and Organization Interfaces

Introduction

It is true - many citizens are becoming more aware of the need for a sustainable future. Our planet, as well as future generations depend upon it. For us, as global citizens, there seem to be endless options for action - numerous ways we can change, integrate, or adapt to alternative ways of interaction in support of fostering a sustainable society. Many of these actionable activities focus on what we can do as individuals. Reduce, reuse, recycle has become the motto of the day and many of us try to do our part. However, our chances of achieving a sustainable future are greater if we become, not only individuals of action, but also communities of action.

When exploring the various actionable activities that communities can consider in their long-term effort for sustainability we look toward the notion of sharing - in specific, sharing capital. We pose the questions: What if the machines we utilize everyday had rights? What if we treated the various equipment we have in our homes, the vehicles in our sheds and garages, the unused material from various completed projects, and the buildings we use for storage and shelter as though they were citizens? We further ask how this shift in valuing our unused, underused capital potentially increases the productive capacity and competitiveness of our communities as they strive for sustainability?

In collaborating with the citizens of Craik, Saskatchewan, a rural prairie community located in the south-central area of the Canadian province, we are striving to advance these research questions. Working with various members of the Craik Sustainable Living Project [4] we are developing an online repository to manage their unused, underutilized capital. We propose structuring the online repository in such a way that democratizes the capital residing within, providing it with similar rights and freedoms to that of the very citizens

of the community. The fundamental goal of our collaboration is to explore how this change in perspective potentially increases awareness in supporting the community's efforts in becoming an actionable community in such respects. A community that, not only more effectively reduces, reuses, and recycles, but also rethinks and (re)imagines how to best integrate sustainable practises. In designing the user interface and functionality of the online repository, we are exploring the possibilities of using Free/Libre Open Source Software which, with the overall theme of our collaborative activity, highlights the notion of community action and freedom.

Activity Scenario

To help illustrate the concept of what we are proposing, let us consider the following scenario. Imagine yourself wanting to build an eco-friendly shed out of sustainable building materials, e.g. wheat straw bales, recycled/reclaimed timber, among others. Now, imagine that you don't have much experience in designing and constructing sheds of this kind. You decide that you require some guidance or assistance so you start asking neighbours and friends around your community. To your delight, some indicate their willingness to assist you.

As you plan the construction of your shed, you realize that you are going to require additional help - tools, building materials, and other supplies, that neither you or your helpers have access to. Not wanting to purchase new tools you may only use once you conveniently log on to the community website and post your request for aid. Immediately, a variety of *things volunteer* to help in completing your task - a few claw hammers, and shovels, and a professional grade mitre saw, a post hole digger, as well as some used timber from a deck that was recently unassembled, and some unused bags of cement from a previous project. Also needing an 8 foot ladder you query the system eventually finding

one. Upon asking the ladder if *it* too would consider *volunteering*, *it* responds informing you that *it* is scheduled for routine maintenance during the requested day but proposes a rescheduling if you performed the maintenance after your building activity. Agreeing to the ladder's request, the person originally scheduled to perform the maintenance is informed of the change. Very satisfied in obtaining the volunteer services of your neighbours, friends, and the other *things*, you arrange to purchase the additional materials required and arrange for everyone to meet and *everything* to be picked-up for the specific building day.

Project Goals

As illustrated in the scenario, a fundamental goal of our collaborative activity is to create, through interaction with software, a paradigm shift in how citizens perceive capital, viewing it as being *something more* thereby increasing the citizens' ability to form a community of action toward greater sustainability. Deep ecology, as popularized by Arne Naess [8], maintains that the environment is fundamentally imbued with a worth that we ought to respect and care for. While some traditions in Western Philosophy are supportive of such a view, e.g. Spinoza's [9] ethical doctrine of pantheism, others have decidedly rejected this suggestion, particularly that capital of any kind (machine or otherwise) should have a moral standing, much less entitlement to rights of one kind or another. Such a view strengthens Kant's [5] position that *things* (i.e. non-rational objects) only have a relative value and can be treated merely as a means to advancing one's own ends, as opposed to rational beings (like us) that are to be treated as ends in themselves having an intrinsic moral worth.

Treating capital as being a type of self-governing citizen builds on considerable work done in philosophy on the topic

of autonomy as it relates to human beings [6]. Through the lens of citizenship, and more specifically autonomy, the traditional treatment of physical capital becomes analogous to the treatment of a slave that is owned by another: arbitrarily restricted in its activities and movements and potentially abused. Similarly, an owner of capital does not necessarily take responsibility for the capital's resource dependencies (e.g. energy) and maintenance needs, what would be seen as their *well-being*. We already tend to think of many physical objects as *alive*, which is a step toward their emancipation: we give them names, we attach personal value to them (e.g. family heirlooms), and we talk about their life spans, e.g. cradle-to-grave or cradle-to-cradle [7]. The activity we describe, however, aims to transition from thinking of capital simply as being *alive* to thinking of it as being a *citizen*. Making this transition allows us to think of capital as having various rights and freedoms, thereby positively increasing our attitude toward how we interact with it, thus building upon our capacity with respect to achieving successful communities of action.

Software Framework

The basis for the collaborative activity we describe is underlined by the technology that is proposed. Given the nature of the project, we decided to explore the advantages and innovations associated with Free/Libre Open Source Software (FLOSS). With FLOSS, the concept of *freedom* is typically understood as guaranteeing the freedoms associated with the users of the software. As with the *freeing of capital*, FLOSS itself also has a similar kind of freedom. Based on the legal licenses defining Free Software, such as the GNU General Public License [3], the software cannot be arbitrarily restricted by the owner of the copyrighted software code,

as with proprietary software. Instead, the owner grants the same rights to all other parties, who can then study, edit, modify, and distribute the software under a similar code of conduct.

There exist many FLOSS projects that have potential to be used in the design of our proposed system. Specifically, we will be exploring Drupal [2], a highly flexible content management system (CMS). A clear benefit in using Drupal is that it comes packaged with options to integrate a multitude of additional functionality and enhancements, called *modules* (developed by members of the Drupal developer community). In addition to exploring Drupal, we will investigate CiviCRM [1], a similar CMS - however, with a specific focus on meeting the needs of "advocacy, non-profit and non-governmental groups." CiviCRM functions as a standalone CMS. As well, it has options to seamlessly integrate with Drupal and other CMSs - an ability, and clear advantage of using FLOSS.

The fundamental structure of the online repository would include integration of tracking capability, enabling citizens within the community to track their capital and facilitate their shared use by automating key processes (such as scheduling and recording items currently in use, sending email reminders for items needing to be returned, determining maintenance schedules, and allocating resources where there are multiple conflicting demands). Furthermore, the data generated through citizen interaction would assist in allowing for the development of new productive technologies in response to the identified needs of the community.

Conclusion

Collaborating with citizens of the Craik Sustainable Living Project we are designing an online repository, using Free/Libre Open Source Software, for managing their unused

and underutilized capital. An emancipation of the community's capital is proposed. By exploring their interaction with the repository, it is hoped that the community will become empowered to rethink and re-imagine the way it utilizes its current, and needed (projected) capital, thus potentially increasing the community's capacity toward greater sustainability. Although our initial focus is a small rural town, we hypothesize that concepts explored could also apply to urban neighbourhoods, organizations, businesses, non-profit corporations, and local governments.

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