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Working for the App

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WORKING FOR THE APP: THE "GIGIFICATION" EFFECT

I. INTRODUCTION

A. A Lumpy Start

In 1978, Marcus Felson and Joe L. Spaeth publish the paper, "Community Structure and Collaborative Consumption: A Routine Activity Approach," in which they examined acts of collaborative consumption, *i.e.*, "events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others."[1] Among other things, Felson and Spaeth discussed the dependence of collaborative consumption on the "spatiotemporal concurrence of collaborators" (*i.e.*, people being in the same place at the same time).[2] As they explained,

> Because acts of collaborative consumption require the use of resources produced by other activities, as well as the cooperation among persons, these activities cannot exist autonomously but rather must feed upon other activities. Thus their analysis must consider the spatiotemporal structure of community activities which concentrate or disperse people in space and time or otherwise structure and coordinate their activities. … Insofar as joint activities involve consumption of goods and services, the spatiotemporal structure of community activities will have an important impact upon the extent of collaborative consumption. More precisely, by affecting the timing of collaborative activities, community structure tends to generate circumstances under which particular types of collaborative consumption occur.

This was, of course, before 64% of U.S. adults owned a smartphone[3] and had regular access to a dispersed communication network that enabled them to coordinate their activities with known and unknown others instantaneously at virtually no cost. Indeed, there seems little doubt that the modern sharing economy owes much of its existence to Apple's 2008 introduction of the iPhone and the app store.[4] The rapid adoption of mobile computing devices equipped with an ever-growing list of "social" apps has made it possible it to coordinate the actions—and thus consumption—of otherwise disparate and dispersed individuals.

Against this backdrop, enter the concept of the "lumpy" good (or service):

> The basic intuition is simple. There are goods that are "lumpy," by which I mean that given a state of technology, they can only be provisioned in certain discrete bundles that offer discontinuous amounts of functionality or capacity. In order to have any computation, for example, a consumer must buy a computer processor, which in turn only comes in certain speeds or capacities. Lumpy goods can, in

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[1] Felson, Marcus and Joe L. Spaeth, "Community Structure and Collaborative Consumption: A routine activity approach," American Behavioral Scientist, 21:614–24, Mar-April 1978.
[2] *Id*. at 616.
[3] Pew Research Center, "U.S. Smartphone Use in 2015," Apr 1, 2015, http://www.pewinternet.org/2015/04/01/us-smartphone-use-in-2015/ (up from 35% in 2011).
[4] Eric Newcomer, "The Sharing Economy: Friend or Foe," Bloomberg News, June 15, 2015, https://newsletters.briefs.bloomberg.com/document/4vz1acbgfrxz8uwan9/what-it-is.

> turn, be fine, mid-, or large grained. A large-grained good is one that is so expensive that it can only be used by aggregating demand for it. Industrial capital equipment, like steam engines, is of this type. Fine-grained goods are of a granularity that allows consumers to buy precisely as much of the goods as has the amount of capacity they require, such as a donut or a cup of coffee. Mid-grained goods are small enough for an individual to justify buying for her own use, given their price and her willingness and ability to pay for the functionality she plans to use. If enough individuals in society buy and use such mid-grained lumpy goods, that society will have a large amount of excess capacity "out there," in the hands of individuals.[5]

As Professor Yochai Benkler suggested in 2004 (before smartphones), a "shareable" good is one that is technically lumpy (*i.e.*, sold in a discrete unit rather than a smooth flow) and of mid-grained granularity (*i.e.*, reasonably attainable but in a unit that provides more capacity than the owner needs).[6] Although technology does not dictate the level of sharing of such goods, it does set a ceiling on the level of sharing possible.[7]

In 2004, Professor Benkler identified both cars and computers as "shareable" goods and noted the sharing of these resources via carpooling and distributed computing, respectively, had four characteristics in common: (1) they involved large-scale sharing practices among people who were either weakly related socially or complete strangers; (2) they involve sharing private economic goods otherwise owned for personal use; (3) market models exist for clearing their excess capacity; and (4) the output of the sharing practice is a "rival" good in that the shared use of the item precludes other uses of the item.[8] Professor Benkler then explored at length the social and technological limitations imposed on these sharing arrangements and the effects those limitations had on the economics of the sharing.

With respect to carpooling, Professor Benkler noted the vast majority of carpooling involves no exchange of money whatsoever but instead a bartered distribution of obligation (each person takes a turn driving) or cost-sharing (*e.g.*, sharing the out-of-pocket costs associated with fuel and tolls).[9] Similarly, with respect to distributed computing, Professor Benkler noted the most visible distributed computing projects tended to center around "other-focused" or "altruistic" goals, *e.g.*, SETI@home (search for extraterrestrial life), Folding@home (simulating protein folding), Fightaids@home (computational biology to screen drugs for treating HIV), and Genome@home (modeling artificial genes to create artificial proteins).[10] Even looking beyond these high-profile distributed computational projects, Professor Benkler found the absence of money was typical, with fewer than one fifth of distributed computing projects making any mention of money at all.[11] Moreover, of those that did mention money, most referred to a share

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[5] Benkler, Yochai, "Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production," The Yale Law Journal, Vol. 114:217, 297, Oct. 22, 2004, https://www.dropbox.com/s/ig8955sggxjd1h0/Sharing%20Nicely%20Benkler_FINAL_YLJ114-2.pdf.
[6] *Id*. at 276-77.
[7] *Id*. at 278-79.
[8] *Id*. at 277, 281.
[9] *Id*. at 283.
[10] *Id*. at 293.
[11] *Id*.

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