

Re-thinking the Concept of Surplus: Embracing Co-Creation  
Experiences in Economics

Avik Chakrabarti

Stephen M. Ross School of Business  
University of Michigan

Venkat Ramaswamy

Stephen M. Ross School of Business  
University of Michigan

Ross School of Business Working Paper  
Working Paper No. 1188  
April 2014

This work cannot be used without the author's permission.

This paper can be downloaded without charge from the  
Social Sciences Research Network Electronic Paper Collection:  
<http://ssrn.com/abstract=2291475>

# **Re-thinking the Concept of Surplus: Embracing Co-Creation Experiences in Economics**

Avik Chakrabarti \* and Venkat Ramaswamy \*\*

April 2014

---

\* Associate Professor, Department of Economics, UWM; E-mail: [chakra@umich.edu](mailto:chakra@umich.edu)

\*\* Hallman Fellow of Electronic Business and Professor of Marketing, Ross School of Business, University of Michigan, Ann Arbor; E-Mail: [venkatr@umich.edu](mailto:venkatr@umich.edu)

We thank Wallace Hopp, Associate Dean and Herrick Professor of Business for his valuable comments on an earlier version of this article.

# Re-thinking the Concept of Surplus: Embracing Co-Creation Experiences in Economics

Economics has traditionally split consumers from producers by assigning them fixed roles. In the Internet networked economy as it is becoming, this is no longer true as value is increasingly *jointly* created among individuals, as a function of their *co-creation experiences*. We construct a framework that reconnects economics with value creation that goes beyond artifacts as the central unit of analysis, towards *platforms of engagements* of which artifacts themselves are only a part. Engagement platforms are now both the means and ends of value creation, and economic theory must take into account both the potential value generated to individuals through “*production*” *experiences of co-creating artifacts* (through co-production engagement platforms), as well as *co-creating “consumption” experiences* (through co-consumption engagement platforms). We show how starting with joint value creation re-shapes our thinking about the nature of “surplus”, expanding traditional economic thinking about supply and demand toward a more convergent space of markets shaped by co-creation experiences.

**JEL Classification Code:** B40, B41, D46

**Keywords:** Co-Creation Experience Economics, Co-Creation Possibilities Set, Co-Creation Possibilities Frontier, Co-Creative Surplus, Gains from Co-Creation, Principle of Co-Creative Advantage.

“It is time to reengage the severely impoverished field of economics with the economy.”

*Ronald Coase (2012)*

## **1. Introduction**

In the economy as it is becoming with the advent of the web and mobile technologies of expression, communication and information, value is increasingly *jointly* created among individuals.<sup>1</sup> Yet, economists continue to artificially assign *fixed roles* to individuals, e.g., producers and consumers, with the producer creating value through production and the consumer generating demand. The market is portrayed as a mechanism for producers and consumers to engage exclusively in exchange from the producer to the consumer. Consequently, the relevance of the “nirvana approach”<sup>2</sup> of conventional economic thinking has shrunk with this apparent disconnect drilling down to the process of value creation since value, in the economy as it is becoming, is no longer confined to goods or services but stems from the *co-creation experience of each individual*. Firms and consumers are no longer ‘treated as separate entities only related through price signals the way conventional economics teaches us to think’.<sup>3</sup> Note that we are not talking merely about endogenous creation of products by individuals assigned the role of producers in concert with individuals assigned the role of consumers, but rather endogenous *joint* human experience creation that is driven by interactions anywhere in the system (including before and after the traditional point of exchange).

Consider the case of automobiles. Any part of the activity system that results in the creation of the automobile (artifact), can be opened up to joint value creation with individuals, including consumers. Consequently, the consumer’s role expands as a potential co-creator of “production”

---

<sup>1</sup> See Prahalad and Ramaswamy (2000, 2002, 2003, 2004a, 2004b), and Ramaswamy (2008, 2009).

<sup>2</sup> The expression “nirvana approach” was used by Harold Demsetz, as early as 1969, to characterize the typical fallacy inherent in conventional economic thinking when comparing an imperfect existing arrangement to a hypothetical idealized system.

<sup>3</sup> We would like to acknowledge borrowing this succinct observation from an anonymous referee.

experiences. For instance, Local Motors, a startup enterprise, has built a co-creative production platform that allows individuals, from designers to fabricators to component manufacturers all along its value chain, to participate in the production of cars. It is important to highlight, at the outset, the elemental difference between value generated by incentivizing the participation of consumers in the process of innovation and that generated from co-creation experiences. The former (innovation competition) is typically conceived as a mechanism designed by the firm(s) announcing incentives for consumers to communicate ideas that can help improve, for instance, the design of a product. In comparison, the value generated through the experience of co-creating a design is distinct from that generated through an actual improvement in the design itself. Consider, for illustration, a competition designed by Local Motors offering an economic incentive of  $M$  (awarded only to the winning entry) that draws submission of ideas from  $n$  individuals among a pool of  $N$  participants. Conventional economic teaching would prompt us to think that, while for there to be a winning entry the value of that entry cannot fall short of  $(M + E_L)$  any realization in excess of which is considered economic surplus accruing to Local Motors, each individual ( $i$ ) values submission at  $\left(\frac{M}{n}\right)$  with an *ex ante* surplus of  $\left(\frac{M}{n} - E_i\right) \forall i = 1, 2, \dots, n$  but an *ex post* surplus of  $(M - E_w)$  for the winner ( $w \in i$ ) and an *ex post* deficit of  $E_i$  for the rest ( $i \neq w$ ) where  $E_L$  is Local Motor's expense for design and implementation of the competition mechanism and  $E_i$  is individual  $i$ 's expense for submission. An infusion of co-creation experiences for each participating individual, on the engagement platform provided through Local Motor's competition, extends expected value above  $\left(\frac{M}{n}\right)$  and, hence, *ex ante* surplus beyond  $\left(\frac{M}{n} - E_i\right) \forall i = 1, 2, \dots, n$  while recognizing the existence of potential value for all  $N$  participants. By the same token, *ex post* surplus need not be limited to  $(M - E_w)$  for the winner or be reduced to an *ex post* deficit of

$E_i$  for the rest, reflecting the global dimension of co-creative surplus in sharp contrast with the relatively local specification of the conventional notion of economic surplus.

The key point is that the traditional distinction between the consumer and the producer, while remaining valid at the point of exchange, is of no relevance when an individual shares the same platform to engage with other individuals with or without an eventual exchange of an artifact. The designing of a car, by a participant on a manufacturer's platform, need not necessarily lead to a new variety of a car being manufactured. The *experience of co-creating* still generates value for individuals. Indeed, an individual, who neither manufactures a new variety of car nor uses it, can still generate value through the experience of co-creating on the engagement platform provided by an auto manufacturer. The distinction between the value generated through the experience of co-creation and value generated through the provision of artifacts draws the boundaries of conventional business interaction. Further, as discussed next, the Internetworked automobile (“product” of the activity chain of the manufacturer’s platform) can itself be viewed as an assemblage of Internetworked individuals and Internetworked interfaces and processes constituting a platform of engagements, and the producer’s role *expands* as a potential co-creator of “consumption” experiences of individuals.

Consider OnStar, a platform of engagements launched by General Motors (GM), which, using telematics and informatics, enables new value creation space within which consumers can enjoy personalized co-creation experiences that make driving more entertaining, informative, convenient, and fun. In particular, consider the Chevrolet Volt electric vehicle and the ability for drivers to manage the charging of the vehicle, including the ability to charge during off-peak hours, through the OnStar RemoteLink mobile app. Suppose, I am interested in knowing if I can reach my destination on a single charge. The RemoteLink app cannot only answer this, but it can plot a

route with recommended charging stations and even download it to the vehicle. The same RemoteLink app can also start a vehicle and its charging remotely, identify where it is parked, and even pay for the electric charging at accepting charge stations. Further, by linking the vehicle with smart power utility grids, the customer can direct the power utility to control when it charges, depending on the rates at different times of the day, when the power generated is coming from renewable energy sources. The utility company gains as a stakeholding partner in minimizing power spikes and maximizing grid efficiency. GM has gone a step further by opening up the platform to allow others to create new services such as RelayRides—a partner with GM—through which vehicle owners can rent out their idle cars and control the rates and the availability of the car.

Taken together, the Local Motors and OnStar examples are illustrative of a broader movement in our economy and society toward expanding value creation by harnessing the power of networked intelligence where firms can open up traditional production activities to consumers (“experience of co-creating production”), and/or open up traditional consumption activities to producers (“co-creation of consumption experiences”).<sup>4</sup> Both of these are “co-creation experiences”, and in either case, central to co-creation experience is the concept of an engagement platform as an assemblage of artifacts, persons, interfaces, and processes, whose design intensifies co-creating agency in joint value creation through human experiences.<sup>5</sup> Similar examples of the expansion of value creation through co-creation experiences are abundant with platforms of engagements in numerous enterprises spanning agriculture, automotive, consumer durables,

---

<sup>4</sup> See Ramaswamy and Gouillart (2010a, 2010b), and Ramaswamy and Ozcan (2014) for a plethora of compelling examples in this direction.

<sup>5</sup> See Ramaswamy and Ozcan (2014) for a discussion of the innovation and design of co-creation platforms of engagements, and an elaborate exposition of value creation as co-creation.

electronics, energy, entertainment, fashion, financial services, healthcare, information technology, manufacturing, media, pharmaceuticals, retail, telecommunication, travel, and many other sectors of the economy.<sup>6</sup>As noted by Ramaswamy and Ozcan (2014), the future of the evolving economy is in the hands of a more expanded paradigm of value creation --- *the practice of joint creation (and evolution) of value through individuated experiences.*

## **2. Expanding Economic Thinking through the Co-Creation Paradigm**

Following the co-creation paradigm of value creation, as expounded by Ramaswamy and Ozcan (2014), co-creation thinking holds the key to *expanding an economist's vision of "value"*. A rational individual, by engaging in co-creation experiences of value, promotes collective interests only to promote self-interest and vice-versa: doing even better for oneself by others doing well. This "win more—win more" vision is increasingly gaining clarity with *wealth-welfare-wellbeing* being continuously created and enhanced in ways that are distinct from what an economist could have experienced through the pre-Internet industrial era. The de-humanization of value, that took place with a perceived split of the producer from the consumer in the industrial era, is being challenged in today's economy. As Amartya Sen (1999) emphasized, "Indeed, it is precisely the narrowing of the broad Smithian view of human beings, in modern economies, that can be seen as one of the major deficiencies of contemporary economic theory". Economists have, so far, continued to model value as a relational property of goods and services. This narrow definition of value is misconstrued and its deficiencies are becoming increasingly apparent in the context of the real experiences of the new evolving economy. The key point of departure of the co-

---

<sup>6</sup> See Ramaswamy and Gouillart (2010b) and Ramaswamy and Ozcan (2014) for a discussion of the power of co-creation using a multitude of examples.

creation paradigm from conventional economic thinking, starts with restoring the element of “*human experience*” in value.<sup>7</sup> Value is generated from experiences, unique to each individual, that result from an interaction through a platform of engagement. We take this holistic view of expanding the space for creating value and recognize that utility theory<sup>8</sup> is not redundant but can be seen as an emergent property of co-creation experiences.

The timeliness of our contribution can best be projected with a quote from the late Ronald Coase (2012), one of the most widely cited centurion Nobel laureates, “Knowledge will come only if economics can be reoriented to study of man as he is and the economic system as it actually exists.” At the dawn of this millennium, a tribute to Ronald Coase appeared on the economic scene of the New York Times with the opening line: “There was never a new economics to go along with the new economy.” The author of that column, Hal Varian, reminded us of the subtle underpinnings of Coase’s nobel-prize winning work as well as the need for “careful analysis of competing forces” in determining the role of the firm in the new “internet” economy.

The increasingly visible hands of co-creation are rapidly replacing what economists, following Adam Smith’s (1776) magnum opus *Wealth of Nations*, have construed as the invisible hand of market forces. Experiences stemming from the immediate aftermath of the industrial revolution prompted economists to formalize the invisible hand as working of the price mechanism on premises that split the firm’s role from that of the consumer. The real experience of the new evolving economy continues to drift far apart from this dichotomized view of the market while

---

<sup>7</sup> See Ramaswamy and Ozcan (2014) for a discussion on humanization of value.

<sup>8</sup> A fruitful approach of parsimoniously modifying preferences, to show how economics can be applied to study the forces that shape behavior, dates back to the seminal contribution of Becker (1957). While many economists have followed Becker’s footsteps, in this direction, relatively recent applications can be found in Becker and Murphy’s (2009) insightful analysis of the role of social interactions in enriching the domain of inquiry of economists as well as the way economists conceptualize individual decision making.

economists, in large numbers, march off with arms that fire obsolete explanations for the incessantly expanding territory of the modern enterprise. As Harold Demsetz (1990) succinctly put it, ever since the publication of *The Wealth of Nations* back in 1776, the principal task of economists has been to formalize the proposition of Adam Smith that the economy could be coordinated by the invisible hand to which Ronald Coase, in his 1991 lecture to the memory of Alfred Nobel, added, “Economists have uncovered the conditions necessary if Adam Smith’s results are to be achieved and where, in the real world, such conditions do not appear to be found, they have proposed changes which are designed to bring them about.”

Let us pause to think: Would Adam Smith have visualized the new economy any differently? It is important to clarify at the outset that, in posing this question, *we are not challenging the view that the rational individual acts in self-interest*. One does not have to disagree with Adam Smith’s (1776) assessment, “It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address to ourselves, not to their humanity, but to their self-love, and never talk to them of our own necessities, but of their advantages.” By the same token, one does not have to appeal to Adam Smith’s (1759) *Moral Sentiments*, “How selfish soever man may be supposed, there are evidently some principles in his nature which interest him in the fortunes of others, render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it.”

Instead, we are questioning the relevance of the very premises of the theory of value already in vogue, and lay out (with parsimonious abstraction) a blueprint for the foundation of co-creation thinking in economics --- a contribution we would like to identify as the conception of *Co-Creation Experience Economics*. In so doing, we re-think the space of “value creation” possibilities and consequently the notion of “surplus” in economic theory. Contrary to conventional views of

economic surplus as a “theoretical toy”<sup>9</sup> that artificially constricts attention to perceived differences between the maximum price a buyer would be willing (and able) to pay for an artifact and the minimum price at which a seller would be willing (and able) to sell the same artifact, in what follows, we show how realized surplus encompasses value generated through co-creation experiences shared by individuals on engagement platforms.

### **3. Co-Creation Experience Economics: Re-thinking Surplus**

Consider the value ( $V_i$ ) derived by an individual  $i$  as a function of  $C_{ij}$ , representing the vector of individual  $i$ 's co-creation experiences on engagement platform  $j$ , as well as on the conventional vector of  $i$ 's actions ( $a_i$ ), others' actions ( $a_{-i}$ ), and controls ( $c_i$ ) that entail all else affecting the value  $i$  derives:

$$V_i = V_i(C_{ij}, a_i, a_{-i}, c_i).$$

The arguments of  $V_i(\cdot)$  are not only sufficient to capture the standard economic role of own actions and externalities but incorporates co-creation experience as a motivation for individual economic behavior. Consider the following representation of individual  $i$ 's co-creation experience on engagement platform  $j$ :

$$C_{ij} = C_{ij}(R_{ij}, R_{-ij}, T_{ij}, T_{-ij}, a_i, a_{-i}, c_i),$$

where  $T_{ij}$  and  $T_{-ij}$  represent time and  $R_{ij}$  and  $R_{-ij}$  represent resources invested by individual  $i$  and others  $-i$  (including, though not necessarily limited to, those on platform  $j$ ), respectively, in the engagement specific to platform  $j$ .

---

<sup>9</sup> See Little (1957, page 180).

Conventional economic thinking would prompt a typical individual  $i$  to choose its actions  $a_i$  in a way that maximizes  $V_i$ , ceteris paribus. This apparently draws the boundaries of the market where the goal of each firm, given its own resource constraints, is reduced to a) the maximum extraction of surplus from individual consumers, and b) the minimum expense of the extracted surplus on individual workers, that specific market structures allow.

Now think co-creation. Imagine the vast potential of co-creative surplus that conventional economic thinking leaves out by simply ignoring the fact that an enterprise can and does, even more so in the modern Internetworked age, release its resource constraints by investing in engagement platforms that co-create value by enhancing the diverse experience of individuals. In an environment of co-creation, the objective of the enterprise(s) providing platform  $j$  is to

$$\begin{array}{ll} \text{Maximize:} & V_j = V_j(C_{ji}, C_{-ji}, a_j, a_{-j}, c_j) \\ \{R_{ji}, T_{ji}, a_j\} & \\ \text{subject to} & \bar{T}_j = \sum_i T_{ji} + T_j(R_{ji}) \end{array}$$

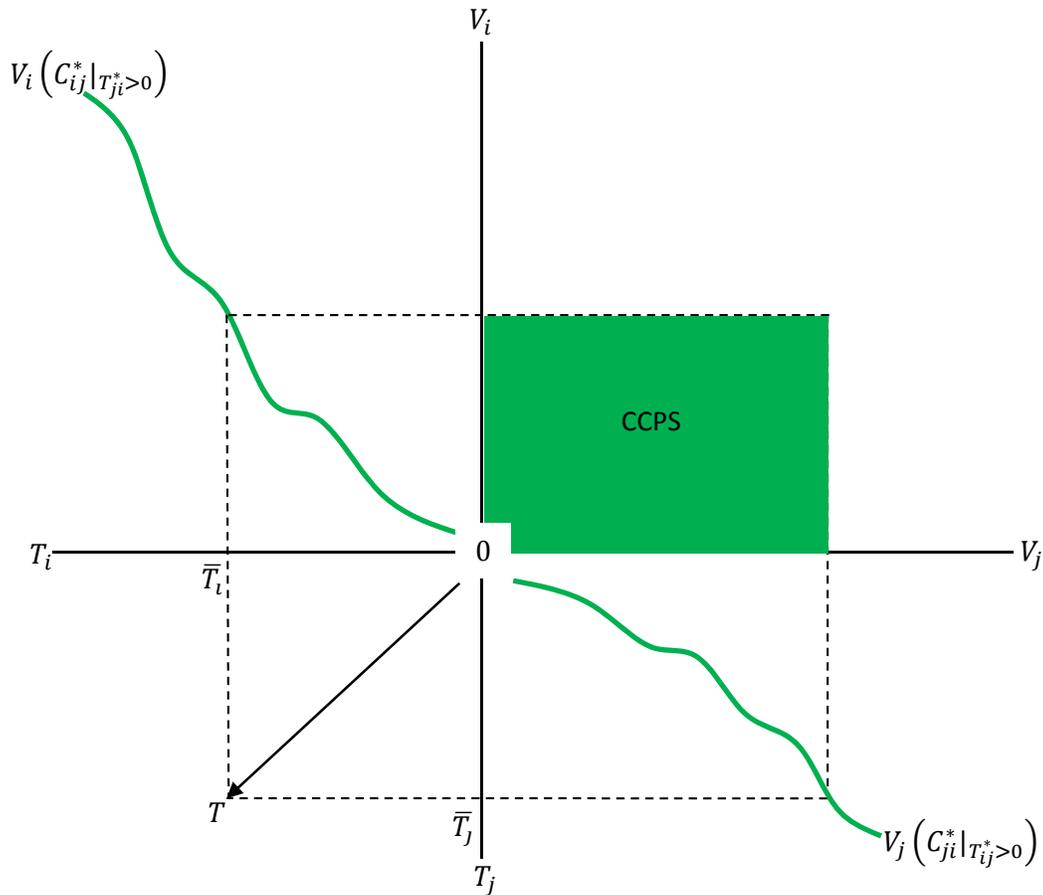
while each individual's objective is to

$$\begin{array}{ll} \text{Maximize:} & V_i = V_i(C_{ij}, C_{-ij}, a_i, a_{-i}, c_i) \\ \{R_{ij}, T_{ij}, a_i\} & \\ \text{subject to} & \bar{T}_i = \sum_j T_{ij} + T_i(R_{ij}) \end{array}$$

where  $C_{ji}$  is the vector of co-creation experiences of all individuals engaged on platform  $j$ ;  $C_{-ji}$  is the vector of co-creation experiences of all individuals engaged on platforms other than  $j$ ;  $a_j$  is the vector of actions of the enterprise(s) providing platform  $j$ ,  $a_{-j}$  is the vector of others' actions; and  $c_j$  is the vector of controls entailing all else affecting the value generated on platform  $j$ . The singular binding constraint is imposed by the arrow of time  $T = \{\bar{T}_i, \bar{T}_j\}$  on the optimal choice of any individual or enterprise (participant) with a finite horizon, where  $\bar{T}_i$  represents the vector time

horizons of individuals and  $\bar{T}_j$  represents the vector time horizons of enterprises, within which  $T_{ji}$  represents time and  $R_{ji}$  represents resources invested, in the co-creation experiences of participating individuals  $i$ , by the enterprise(s) providing platform  $j$ ;  $T_i(R_{ij})$  represents the time invested by individual in acquiring resources  $R_{ij}$ ; and  $T_j(R_{ji})$  represents the time invested by the enterprise(s) providing platform  $j$  in acquiring resources  $R_{ji}$ . The solution to this optimization exercise yields a set of co-creation possibilities  $C^*(T) = [C_{ij}^* \ C_{ji}^*]$ .

**Figure 1: Co-Creation Possibilities Set on a 1x1 Engagement Platform**



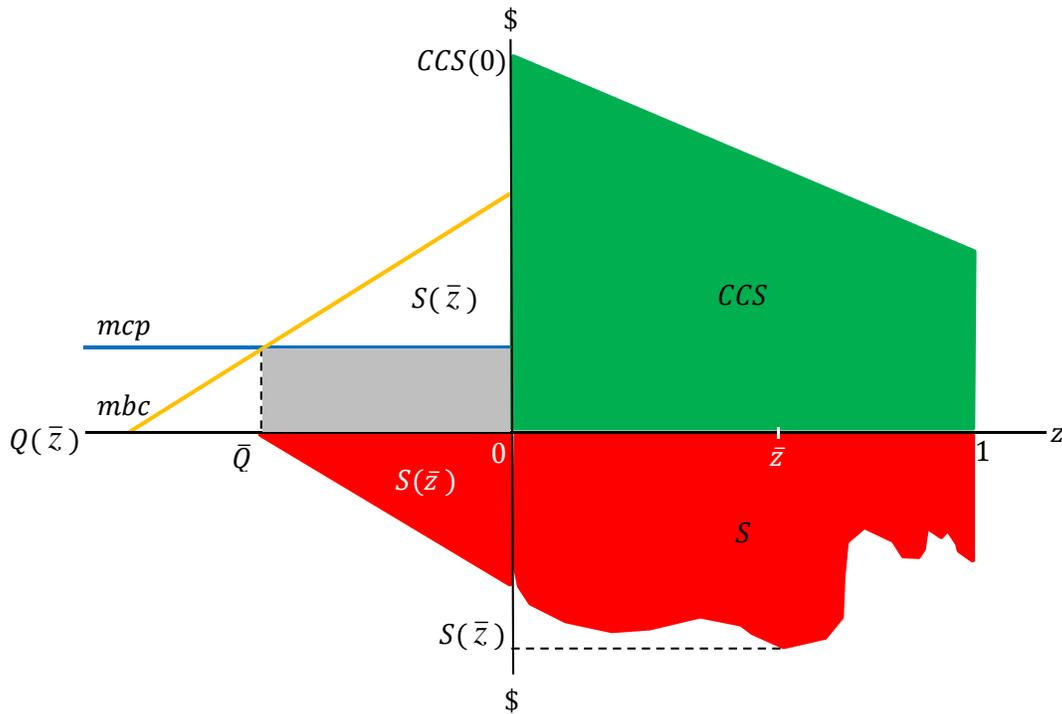
Conventional economic thinking is restricted to the set of production possibilities as distinct from that of consumption possibilities. In contrast, the Co-Creation Possibilities Set (CCPS) stems from the locus of co-creative experiences through interactions between individuals and their platform environments, whose boundary is tied to  $T$ . A CCPS exists for each commodity in use, as well as any yet to be in use (e.g., concept cars), and can be projected on a two-dimensional graph for any pair of co-creators  $i$  and  $j$  with scalar co-creation experiences of each.

**Figure 1** illustrates, for any given output vector, a CCPS on a 1x1 (one-individual-one-enterprise) engagement platform, where  $V_i \left( C_{ij}^* | T_{ji}^* > 0 \right)$  represents the maximum value for individual  $i$ 's co-creation experiences on engagement platform  $j$  and  $V_j \left( C_{ji}^* | T_{ij}^* > 0 \right)$  represents the maximum value for co-creation experiences on engagement platform  $j$ . For expositional convenience, we assume that the minimum dimension of an engagement platform is 1x1. The dimensions and volume of the CCPS would increase with a rise in the number of diverse participating co-creators who engage in co-creation as well as the number of co-created attributes (types of co-creation experiences) that enter the vector. Given any number of participating co-creators and co-created attributes, the volume of a CCPS can expand with intensifying co-creative engagements (positive co-creative externalities). When  $T \rightarrow \infty$ , the CCPS is unbounded.

To fix our ideas, let us map our CCPS to familiar territories of conventional economic thinking on surplus. Consider a continuum of commodities, indexed by  $z \in [0, 1]$  sorted in descending order of the maximum potential surplus that can be generated, given production, exclusively through co-creation experiences on a 1x1 engagement platform over a finite horizon  $T$ . The Co-Creative Surplus (CCS) can then be visualized as  $\iint \left[ \frac{V_i(C^*(z))}{\lambda_i} - E(i, z) \right] didz$  where  $\lambda_i$  is the marginal value

of money and  $E$  is the expense of co-creation. In contrast, the conventional definition of surplus<sup>10</sup> is limited to the extent of gains from trade:  $S = \iint [mbc(q(i, z)) - mcp(q(i, z))] didz$ , that can be generated exclusively through exchange between consumer(s) and the firm, where  $mbc$  is the marginal benefit from consumption and  $mcp$  is the marginal cost of production. For illustration, see **Figure 2**, where  $S(\bar{z})$  measures the maximum surplus that the producers of commodity  $\bar{z}$  can generate by serving an “efficient” market size:  $\bar{Q} = \int q(i, \bar{z}) di$  where  $mbc = mcp$ .

**Figure 2: Surplus with and without Co-Creation**

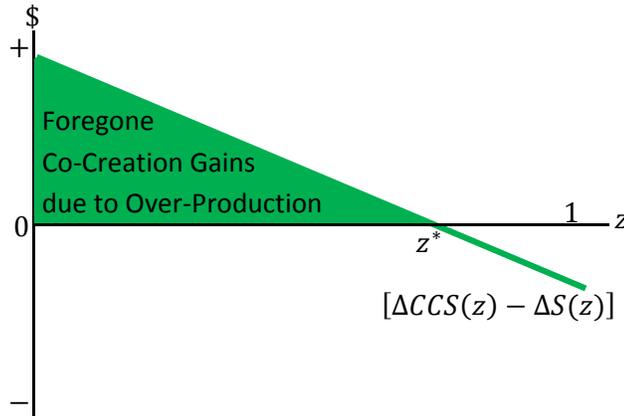


<sup>10</sup> The origin of the notion of surplus dates back to the works of Dupuit (1844). See Hicks (1941, 1943, 1945) for an early assessment of the general the validity of this notion, which gained popularity among economists since Marshall (1890) and still remains in vogue.



This immediately points to the inevitable trade-off between conventional production and co-creation, from which emerges the gains from co-creation, as distinct from, yet related to the notion of efficiency in production. This is captured in **Figure 4**, where, after sorting  $z$  in descending order of  $[\Delta CCS(z) - \Delta S(z)]$ , the foregone co-creation gains ( $\int_0^{z^*} [\Delta CCS(z) - \Delta S(z)] dz$ ) due to over-production relative to co-creation is shown, with  $z^*$  pinned down by setting  $[\Delta CCS(z^*) - \Delta S(z^*)] = 0$  with the marginal value of diverting investment from production to co-creation exactly offsetting the marginal cost of diversion.

**Figure 4: Gains from Co-Creation**



Conventional wisdom suggests that a competitive market yields the maximum surplus while the maximum extraction (of the same surplus) by a producer is possible under perfect price discrimination. In a world of co-creation, this would hold only for  $z \in [z^*, 1]$ . Diverting investment,  $\forall z \in [0, z^*]$ , from conventional production to co-creation would enhance the total surplus available for distribution among the co-creators. Over a finite horizon  $T$ , an efficient co-creative equilibrium is reached at  $[C^*(z) \ Q^*(z)]$  when  $\Delta CCS(z) = \Delta S(z) \ \forall z$ .



In sum, economic thinking remains incomplete without the cognizance of co-creation experiences. Conventional economic thinking has left us with normative principles that are increasingly becoming obsolete, and often misleading, in the evolving economy “as is” and the way it “ought to be”. The relevance of economics, in today’s evolving economy, can be restored through co-creation thinking. By recognizing that value is generated from experiences, unique to each individual, a new foundation for economic thinking evolves rather naturally that does not need an artificial segregation of the role of the consumer from that of the firm in the process of value creation. Co-creative surplus emerges as a core concept that economic thinking must embrace to identify gains beyond the conventional notion of surplus.

#### **4. Concluding Remarks**

In this paper, we have made an effort to bridge the widening gap between economic thinking and the economy as it is becoming. Through the pre-internet industrial era, value was viewed as a creation of the firm through its product and service related activities: firms created value by optimizing and managing their assets and activities and passed that value down through activity chains to recipients, be they customers, employees, or other stakeholders. The rapidly changing elements of our economy places the individual at the center of value creation standing in sharp contrast with the firm-centric view that conventional economic theory is yet to let go. The transition from a firm-centric view to a co-creation view is not about making minor changes to conventional economic thinking, which focuses squarely on the exchange of products and services between the company and the consumer, and places value extraction by the firm and the consumer at the heart of the interaction. In the co-creation view, *all points of interaction between the enterprise and the individual are opportunities for co-creation experiences that can potentially*

*generate value.* The co-creation paradigm fundamentally challenges the traditional distinction between supply and demand. When the experience, along with the value inherent in it, is co-created, the firm may still produce a physical product but the market transforms into a *space of potential co-creation experiences where roles of the producer and the consumer converge.*

This challenges the basic tenet of traditional economic theory: that the firm and the consumers are separate, with distinct, predetermined roles, and, consequently, that supply and demand are distinct, but mirrored, processes oriented around the exchange of products and services between firms and consumers. We have shown how economic thinking can be enriched by embedding co-creation experiences at the core. The surplus in the new co-creative economy is not restricted to the surplus that conventional economic thinking identifies with. We hope that our framework of *Co-Creation Experience Economics* will form the foundation of co-creation thinking for a new generation of forward-looking economists in the economy as it is becoming.

## **References**

- Becker, Gary S. "The economics of discrimination." Chicago: University of Chicago Press, (1957).
- Becker, Gary S. and Kevin M. Murphy. "Social economics: Market behavior in a social environment." Boston: Harvard University Press, (2009).
- Coase, Ronald H. "1991 Nobel Lecture: the institutional structure of production." *The nature of the firm: Origins, evolution, and development* 227, (1993).
- \_\_\_\_\_. "Saving economics from the economists." *Harvard Business Review*, (2012).
- Demsetz, Harold. "Information and efficiency: another viewpoint." *Journal of law and Economics* 12.1 (1969): 1-22.
- \_\_\_\_\_. "Ownership, control, and the firm: The organization of economic activity." Basil Blackwell, (1990).

Dupuit, Jules. "On the Measurement of the Utility of Public Works," (1844) translated and reprinted in Kenneth J. Arrow and Tibor Scitovsky, eds., *Readings in Welfare Economics* 12 (1969): 255-83.

Hicks, John R. "The rehabilitation of consumers' surplus." *The Review of Economic Studies* 8.2 (1941): 108-116.

\_\_\_\_\_. "The four consumer's surpluses." *The Review of Economic Studies* 11.1 (1943): 31-41.

\_\_\_\_\_. "The Generalised Theory of Consumer's Surplus." *The Review of Economic Studies* 13.2 (1945): 68-74.

I. M. D. Little, "A Critique of Welfare Economics." London, (1957).

Alfred Marshall. "Principles of Political Economy. London, (1890).

Prahalad, C. K., and Venkat Ramaswamy. "Co-opting customer competence." *Harvard Business Review* 78.1 (2000): 79-90.

\_\_\_\_\_. "The co-creation connection." *Strategy and Business* (2002): 50-61.

\_\_\_\_\_. "The new frontier of experience innovation." *MIT Sloan Management Review* 44.4 (2003): 12-18.

\_\_\_\_\_. *The Future of Competition*. Harvard Business Press, Boston, MA (2004a).

\_\_\_\_\_. "Co-creation experiences: The next practice in value creation." *Journal of interactive marketing* 18.3 (2004b): 5-14.

Ramaswamy, Venkat. "Co-creating value through customers' experiences: the Nike case." *Strategy & Leadership* 36.5 (2008): 9-14.

\_\_\_\_\_. "Co-creation of value—towards an expanded paradigm of value creation." *Marketing Review St. Gallen* 26.6 (2009): 11-17.

Ramaswamy, Venkat, and Francis Guillard. "Building the co-creative enterprise." *Harvard Business Review* 88.10 (2010a): 100-109.

\_\_\_\_\_. "The Power of Co-Creation: Build It with Them to Boost Growth, Productivity, and Profits." New York: Free Press (2010b).

Ramaswamy, Venkat, and Kerimcan Ozcan. *The Co-Creation Paradigm*. Stanford University Press: Stanford Business Books (2014).

Smith, Adam. "The theory of moral sentiments." London: A. Millar (1759).

\_\_\_\_\_. "An inquiry into the wealth of nations." Strahan and Cadell, London (1776).

Varian, Hal R. "A new economy with no new economics." New York Times, 17 (2002).