

THE COMMODIFICATION OF KNOWLEDGE AND INFORMATION

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Objective

Main Question

What are the implications of the **commodification of knowledge and information** for **capitalism** and for **Marxist theory**?

Entry Point

The production, appropriation, and distribution of value

Approach

Theoretical

Political Economy

Marxist Theory

Empirical

Input-Output matrices and NIPA

New methodology to transform official accounts into PE concepts

Structure of the Paper

1. Marx's own writings on cognitive capitalism
2. Immaterial labor hypothesis
3. Knowledge-commodities and knowledge-rents
4. Current debates within the Marxist literature
 - Reproduction cost approach
 - Average cost approach
5. Empirical estimates
6. Final Remarks

Introduction

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Facts:

Commodified knowledge and information are everywhere

And are spreading very fast

Proliferation of **intellectual property rights**, patents, and copyrights

At both national and transnational levels

Introduction

Commodity form took hold of **land** → capitalist **land-rents** emerged

Commodity form took hold of **labor power** → **wage labor** and **wages** emerged

Commodity form took hold of **capital** → **interest-bearing capital** emerged

Commodity form took hold of **knowledge** → **knowledge-rents** emerged

Marx on Cognitive Capitalism

Marx on Cognitive Capitalism

Marx developed some insights on the future of science and information as productive forces within capitalism

Marx, however, had not yet experienced the vast and profound **commodification of knowledge** as we do nowadays

Our current task:

Consistent account of how **information as a commodity** effects the workings of both **capitalism** and of **Marxist theory**

Immaterial Labor Hypothesis

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Capitalism has been going through a structural shift:

by relying ever more on **immaterial commodities**

by blurring the distinction between **labor** and **non-labor** time

Change in the nature of both labor and commodities:

Abstract labor is no longer the **substance of value**

Marx's value theory is **no** longer valid

Immaterial Labor Hypothesis

Immaterial labor creates immaterial commodities

whose values **cannot be measured** by the **labor time** required for their **production**

Capital has modified the way in which it **subjugates labor** within and outside the production process:

Intellectual subordination of labor to capital

Immaterial Labor Hypothesis

If **abstract labor** is no longer the **substance of value**...

value has **lost its internal measure** in **labor time**

value has lost its role in **regulating production and exchange**

Price system becomes **more arbitrary** and dependent on non-economic factors such as **monopoly rights**

Knowledge-Commodities
and
Knowledge-Rents

Knowledge-Commodities and Knowledge-Rents

The **immaterial labor hypothesis** poses a challenge to the Marxist theory of value

But it is possible, and logically consistent, to **remain within the Marxist theory of value**

while concomitantly acknowledging the recent transformations in capitalism

Not necessary to reject abstract labor as the substance of value

Knowledge-Commodities and Knowledge-Rents

In response to this challenge, we introduce **3 new categories** to theorize the emergence of **commodified information**:

1. Knowledge-commodities with zero value
2. Knowledge-rents
3. Knowledge-lords

3 crucial distinctions:

1. Production vs. Reproduction
2. Productive vs. Unproductive activities
3. Moral depreciation vs. Use-value depreciation

Knowledge-Commodities and Knowledge-Rents

Production vs. Reproduction:

Capital III:

The **value of commodities** is determined **not** by the labor-time originally taken by their production, but rather by the **labor-time that their reproduction takes**

(Marx [1894]1994:522)

Knowledge-Commodities and Knowledge-Rents

Once initially produced as commodities, knowledge and information tend to require **no labor time to be further reproduced**

They become **knowledge-commodities with zero value**

Monopoly over their ownership gives rise to **knowledge-rents**

Knowledge-lords:

primary appropriators of knowledge-rents

owners of commodified knowledge

mostly private companies

Knowledge-Commodities and Knowledge-Rents

Examples of knowledge-commodities:

all sorts of commodified data

the useful knowledge of information, techniques, and instructions

computer software

chemical formulas

patented information

recorded music

copyrighted compositions

copyrighted movies

monopolized scientific knowledge

Knowledge-Commodities and Knowledge-Rents

Four categories of **knowledge-rents**

Monopoly Rent

Differential Rent type I (DR-1)

Differential Rent type II (DR-2)

Absolute Rent

Recent Debate within the Marxist Literature

Recent Debate

Current debate on the **value of knowledge**

Two camps:

- 1. Reproduction cost approach**
- 2. Average cost approach**

Reproduction Cost Approach

(Rotta and Teixeira, Foley, Rigi)

Commodified knowledge tends to have **zero value** because of its costless reproduction

Knowledge-rents are appropriations of the global pool of value in the economy

Knowledge-lords can extract rents multiple times over from costless copies of the same commodity

Knowledge production is an **unproductive activity**

Consistent with the notion of **moral (value) depreciation**

Does **not** rely on sunk and fixed costs

Average Cost Approach

(Starosta, Fuchs, Zeller)

Commodified knowledge **has value**

Given by the **initial expenditures** necessary to **produce it**

Research and development costs to produce the “mold” determine the value to be realized once the knowledge-commodity is sold or licensed

Value of each unit sold is the **average cost of production**, inclusive of fixed costs and sunk costs:

Value of each unit =

total cost to create the mold / number of replicas

Intellectual property rights ensure the **realization of the value** of knowledge-commodities

Not consistent with the notion of moral depreciation

Recent Debate

Moral (value) depreciation:

Is the **loss of value** that, abstracting from the physical wear and tear (the **use-value depreciation**), impacts the **stock of all commodities**, including those that have already been produced in the past

Occurs because of the existing **reproduction methods** on the supply side, and also because of changes on the demand side

“the value of the capital advanced ... rises or falls as a result of an increase or decrease in the labour-time necessary for its **reproduction**, an increase or decrease that is **independent of the capital already in existence**”

(Marx [1894]1994:237-238)

Final Remarks

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The commodification of knowledge and information can be explained in a consistent way **within Marxist theory of value**

Present-day capitalism is becoming more dependent on the existence of **rents**

The **expansion of unproductive activities** and of **rentier forms of capital** is exactly what Marx had theorized and foreseen in the development of capitalism

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