Webinar on Competition law and policy approaches towards digital platforms and ecosystems in cooperation with the BRICS Competition Law and Policy Centre and the Brazilian Administrative Council for Economic Defense (CADE)

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Ecological Thinking on Digital Ecosystems for Better Competition Policy: Gardeners vs. Mechanics

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ECOLOGICAL THINKING ON DIGITAL ECOSYSTEMS FOR BETTER COMPETITION POLICY: GARDENERS VS MECHANICS

ALEXEY IVANOV
BRICS COMPETITION LAW AND POLICY CENTRE
& THE ECOANTITRUST PROJECT TEAM
As we continue to expand our businesses from commerce to cloud computing, digital media and entertainment, among other sectors, Alibaba has evolved into an ecosystem that is unique, energetic and innovative.

...it’s also going to take ecosystem building, norm setting and new forms of governance.

Our unique role as a platform and tools provider allows us to connect the dots, bring together an ecosystem of partners...

...to build a new, intelligent ecosystem that efficiently connects customers and enterprises.

Alibaba Financial Report, 2021

Mark Zuckerberg on Facebook’s rebranding to Meta, 2021

Microsoft Annual Report, 2020

Tencent Corporate Governance Report, 2020
An ecological approach can be used to analyze the evolution of any major business

Moore, 1993 ¹

We found that perhaps more than any other type of network, a biological ecosystem provides a powerful analogy for understanding a business network

Iansiti and Levien, 2004 ²

The notion of ecosystems has raised awareness and focused attention on new models of value creation and value capture

Adner, 2017 ³

Over the last few years, there has been a surge of interest in the concept of “ecosystems” as a new way to depict the competitive environment

Jacobides, 2018 ⁴

¹ Predators and Prey: A New Ecology of Competition (1993)
³ Ecosystem as Structure: An Actionable Construct for Strategy (2017)
⁴ Towards a Theory of Ecosystems (2018)
Standard Oil took over most oil refineries in the US, creating a “Mother Trust” – “a maze of legal structures, which made its workings virtually impervious to public investigation and understanding”

Britannica

Since 1892, the Standard Oil trust repeatedly lost in courts, but effectively continued to operate by constantly reorganizing their business and adapting to new regulatory environment

THE TRUST EXISTED FOR 41 YEARS UNTIL FINALLY AN ANTITRUST LAWSUIT LED TO ITS BREAKUP
INDUSTRIAL VS DIGITAL

INDUSTRIAL FIRMS
- defined
- discrete individual parts
- static
- structured

DIGITAL ECOSYSTEMS
- blurred boundaries
- agile
- adaptive
- dynamic

...we have had to plan our operations with extreme care

Henry Ford

I call myself a blind man riding on a blind tiger

Jack Ma
ECOSYSTEMS GROW
BEYOND THE CONTROL OF ORGANIZERS

Facebook’s nearly one billion users have become the largest unpaid workforce in history

D. Laney, 2012

The participation of millions of people from all walks of life in computer-mediated activities and interactions adds a new source of wealth accumulation to the previous mechanisms of exploitation of labor

H. Ekbia and B. Nardi, 2017

In ecosystems, both natural and digital, impreciseness creates intra-species variability and is a precondition for evolution

“[...] if we could understand evolution, we could understand that most mysterious of processes: innovation”

B. Arthur, 2009
REGULATION IN A MECHANISTIC TRAP

Our existing institutions, mechanisms and models are struggling to respond effectively to the pace of change and its distributed nature

But law is stuck in a mechanistic, seventeenth-century view that the world is made up of discrete individual parts. This led to legal theory focusing on these parts and ignoring the bigger picture...

WEF Report

Capra and Mattei

THE FLUID DIGITAL ECONOMY FLOWS AROUND ROCK-SOLID LAWS

...fluids do not keep to any shape for long and are constantly ready (and prone) to change it <...> From the meeting with solids they emerge unscathed, while the solids they have met, if they stay solid, are changed – get moist or drenched.

Bauman

3 Liquid Modernity (2000)
ECOSYSTEMS BECOME A CATEGORY OF ANTITRUST ANALYSIS

The Market Study noted that one of the defining features of Facebook's business is that it has built a large 'ecosystem' of complementary products and services around its core service.

Facebook/GIPHY, UK CMA, 2021

Competition in such a scenario is amongst ecosystems and not just the verticals or independent services. In such a case, the entire platform has to be taken as one unit to account for the cross-market externalities between platform sides.

Android case, CCI, 2021

Ecosystem operators regularly have good possibilities to avert competition by other providers (e.g., in the form of innovation competition in subsectors) and the expansion of competitors' activities. [...] because within their ecosystem they can themselves organize the markets, their entry conditions and thus the competitive possibilities and/or there can be high switching costs for users due to the breadth and characteristics of the ecosystem.

Article 19a decision on Google, BkA, 2022
**FRAGMENTATION OF THE GLOBAL DIGITAL ECONOMY**

- Fragmented vision of an ecosystem
  - Italy
  - Tying
  - Paramount significance across markets

- Discrimination
  - UK

- MFN agreements
  - US

**SAME ANTICOMPETITIVE BEHAVIOR SEEN THROUGH DIFFERENT LENS – FRAGMENTARILY**

- Blocked
  - UK

- Cleared subject to conditions
  - EU

- Cleared unconditionally
  - Brazil, China, Japan

- Injunction granted
  - US

**Different results of the Google Shopping saga**

- EU
  - Google's apparent non-compliance with remedies
  - Settlement and self-regulation in a similar case
  - Russia, EU

- Brazil
  - Google escaped conviction

- Turkey
  - Google chose to remove Shopping Units

**Microsoft/Activision merger controversy**

- “So, oft in theologic wars, the disputants, I ween, tread on in utter ignorance, of what each other mean, and prate about the elephant, not one of them has seen!”

  John G. Saxe
Diverging approaches to competition law

Underenforcement due to uncertainty

Absence of consensus leads to underenforcement, since competition authorities may prefer not to act due to uncertainty.

This leads to ecosystems increasing their anticompetitive pressure in various forms which, in turn, deepens divergence.

More aggressive non-compliance

A positive loop between a discrepancy of approaches and further uncontrolled growth of a few biggest players

Competition law is on the brink of losing its regulatory relevance and power in the digital economy.
TO ACHIEVE COMMON GOALS WE MUST SPEAK A “COMMON REGULATORY LANGUAGE”, JUST AS WE ESTABLISHED COMMON GROUND ON CLIMATE CHANGE AND BIODIVERSITY

1995 the Convention on Biological Diversity

2015 the Paris Agreement (UN Framework Convention on Climate Change)

NATURAL ENVIRONMENT

• Climate
• Biodiversity
• Ecosystem conservation
• Sustainability

ECONOMIC ENVIRONMENT

• Markets
• Competition
• Digital economy
• Fairness
LEARNING FROM NATURE TO BRING SUSTAINABILITY

All theory is grey, my friend. But forever green is the tree of life.

Johann Wolfgang von Goethe, Faust

To regulate ecosystems efficiently we need to understand their nature.

IT IS DESIRABLE THAT REGULATORS TRANSFORM THEMSELVES

FROM MECHANICS, who repair and maintain,

TO GARDENERS, who cultivate and breed.
Ecosystems are **cyclical** in nature.

Businesses think **cyclically** and adapt their strategies, according to **stages** of their lifecycle.

Regulators should capture this **cyclical logic** as well.
The sages did not treat those already ill, but treated those not yet ill, they ... put in order what was not yet in disorder

The Yellow Emperor's Inner Classic, ~300 BC

Holistic approach in traditional medicine to achieve whole-body balance

INSIGHTS FROM WUXING (FIVE ELEMENTS)
ANDROID CASE

GROWTH
Terrified by Apple's triumph in the smartphone market, Google acquired Android

BIRTH
Android, Inc. began as an open-source system

TRANSFORMATION
Creeping power over the Android ecosystem

RENEWAL
What is the next step for the ecosystem?

EXTERNALIZATION
Harm to independent developers
Jurisdictions around the world deal with ride-hailing platforms differently, but so far, regulatory and antitrust interventions have not shown any significant effect.

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulatory Measures</th>
<th>Antitrust Intervention</th>
<th>Other Formats of Regulation</th>
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</thead>
<tbody>
<tr>
<td>Russia</td>
<td></td>
<td></td>
<td>Self-Regulation in absence of decision-making power of the competition authority</td>
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<tr>
<td>Kazakhstan</td>
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<td>An innovative approach using a dynamic monitoring remedy</td>
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<td>India</td>
<td>Scattered efforts to impose price caps</td>
<td>A 2022 market study focusing on lack of price formation transparency; investigations against Uber, Ola (no harm established)</td>
<td>Self-regulation urging platforms to ensure surge pricing fairness</td>
</tr>
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<td>Austria</td>
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<td>A 2021 market study by FCA showed negative effect on competition from proposed regulation</td>
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<td>EU</td>
<td>RHPs either banned or restricted in several national jurisdictions</td>
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<td>2017 decision by the CJEU ruling Uber is a transport services company</td>
</tr>
<tr>
<td>SEA and the Middle East</td>
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<td>Active merger control in 2015-2020 (Uber/Careem, Grab/Uber) that did not yield much result</td>
<td></td>
</tr>
<tr>
<td>Uzbekistan</td>
<td></td>
<td>Proposal to launch a UNCTAD-backed study on mergers between RHPs</td>
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While until recently, stand-alone RHPs (like Uber, Ola) were prevalent, the market now gets more of ecosystem effects: alongside RHPs integrated into an ecosystem (Yandex Go), new business models emerge (e.g. Amap).
An ecological approach to DPEs regulation proposes to adapt remedies based on the level where an abuse happens and bearing in mind the Meta interactions between the levels – how will an innovation-related remedy on the Micro level affect inter-ecosystem competition on the Macro level?

Elements of the ecosystem approach to analyzing digital platforms are already being applied by the regulator in Kazakhstan, in particular, during an investigation into one of the popular online cab ordering services, said Marat Omarov, Chairman of the Agency for Protection and Development of Competition of the Republic of Kazakhstan. "As part of the approach proposed by the BRICS Center, we focus on dynamic remedies that help to act in the interests of both consumers and drivers, and at the same time do not hinder innovation," he noted.

Pereira Neto & Lancieri (2022) propose a framework of adapting remedies based on effect on welfare – from those narrowly tailored to one ecosystem, to economy-wide non-liability remedies.
INTRODUCING THE (ECO-EVOLUTIONARY ROOTED) 5M FRAMEWORK
META LEVEL – DISENTANGLING INTERACTIONS

Excerpt of a food web of an NE

Excerpt of the interactions from a DPE

Interactions happening at the Meso level
Positive interactions at all levels of ecosystems are key enablers of life.

Regulators can uphold an interaction-based analytical framework in designing market-wide remedies.
ECO-REMEDIES: CHASING ECOSYSTEM POWER

Assessing the capabilities of the ecosystem to create and sustain an algorithm to comprehend “innovation spaces” competition; **who is the decision maker and operates the algorithm?**

How does the algorithm allow the ecosystem to compete and to decrease or increase welfare?

A continuous non-liability monitoring remedy to observe the life cycle of a technology and intervene accordingly bearing in mind repercussions through the Meta level

Assessing how an algorithm-based product is situated within the broader ecosystem and what inputs it receives from the ecosystem and the outer environment

In the case of Yandex, stand-alone interventions at separate levels most likely would not increase welfare (e.g. intervening with a fare price cap at Meso (the product level) would not explain price formation happening at Micro)
ALGORITHM TRANSPARENCY AS A REMEDY

• As an adaptive remedy, algorithm disclosure and monitoring allow to explain how data and technology feed into each of the DPE levels and what are the intra-ecosystem interactions they contribute to.

• Auditing the algorithm as a code only does not explain ecosystem inputs on the Macro level (data received from within and outside of the ecosystem) as well as the environment in which it functions (including people and strategy at the Micro level and interactions with other products at the Meso level).

• Because a DPE’s algorithms fuel the entire ecosystem, auditing them together with data inputs and outputs presents a dynamic remedy where intervention is not static and fragmented.

• These dynamic transparency mechanisms underscore the new role of competition regulator in the economy – not reacting to separate expressions of abuse, but rather assessing the systemic effects of the market ecology.
An Ecological Perspective to Master the Complexities of the Digital Economy

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Abstract
Economic and social interactions are shifting to the digital space, facilitated by digital platforms. Successful platforms grow into vast ecosystems combining multiple offerings, where diverse users derive value from interactions while ecosystem orchestrators harvest massive revenue. The success of the ecosystem business model stems from their ability to swiftly adapt to fast-changing environments, including new technologies and volatile demands. Adaptation happens through dynamic innovation in a decentralised decision-making setting, which renders digital platform ecosystems complex adaptive systems (CAS).

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