

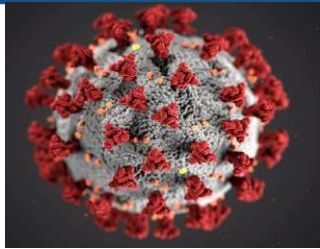


Challenging the IC Theory – Suggestions for Some Ways Forward

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BACKGROUND



COVID-19 PANDEMIC

DIGITALISATION

REMOTE WORKING



OPEN INNOVATION

GIG WORK

Intellectual Capital – Scope and Taxonomy

value-generating knowledge assets



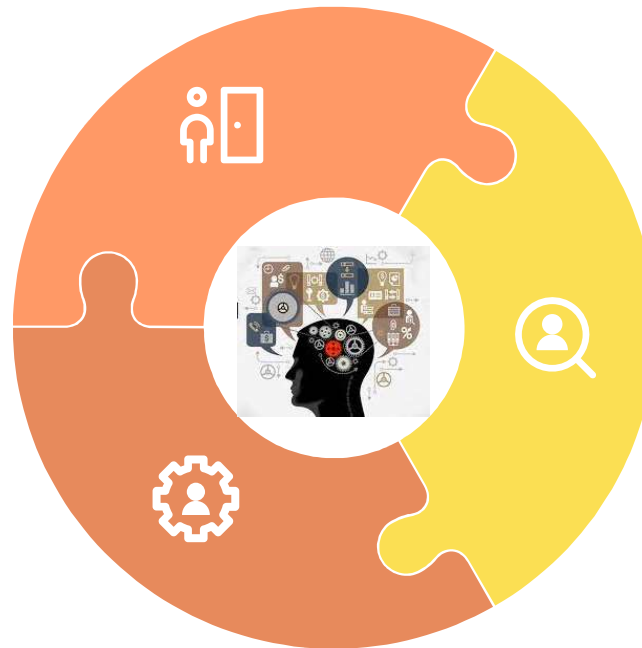
Human Capital

the value vested in an organization's personnel



Relational Capital

the value vested in organizational relationships



Structural Capital

the value vested in organizational structures and processes



RESEARCH MOTIVATION

Worklife has changed – should IC theory change as well?

Is there a need to redefine knowledge-based resources that contribute to value creation in the post(?) -pandemic world

=> Propositions for updating the IC framework



IC-relevant changes in environments and the work-place

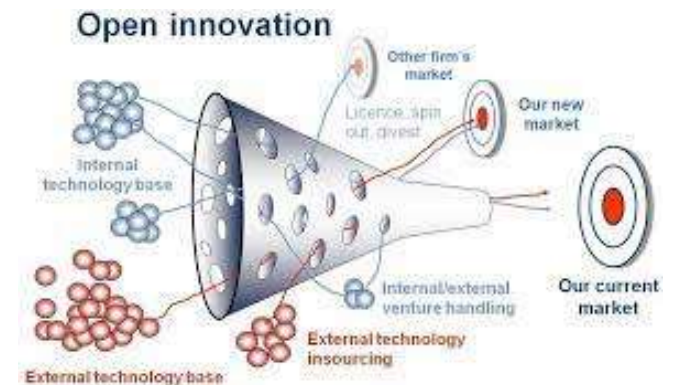


2. REMOTE AND GIG WORK

work that is detached from a traditional fixed places of employment

3. OPEN INNOVATION

greater knowledge flow within and across the boundaries of organizations



1. DIGITALIZATION

Technological developments create greater work flexibility and mobility

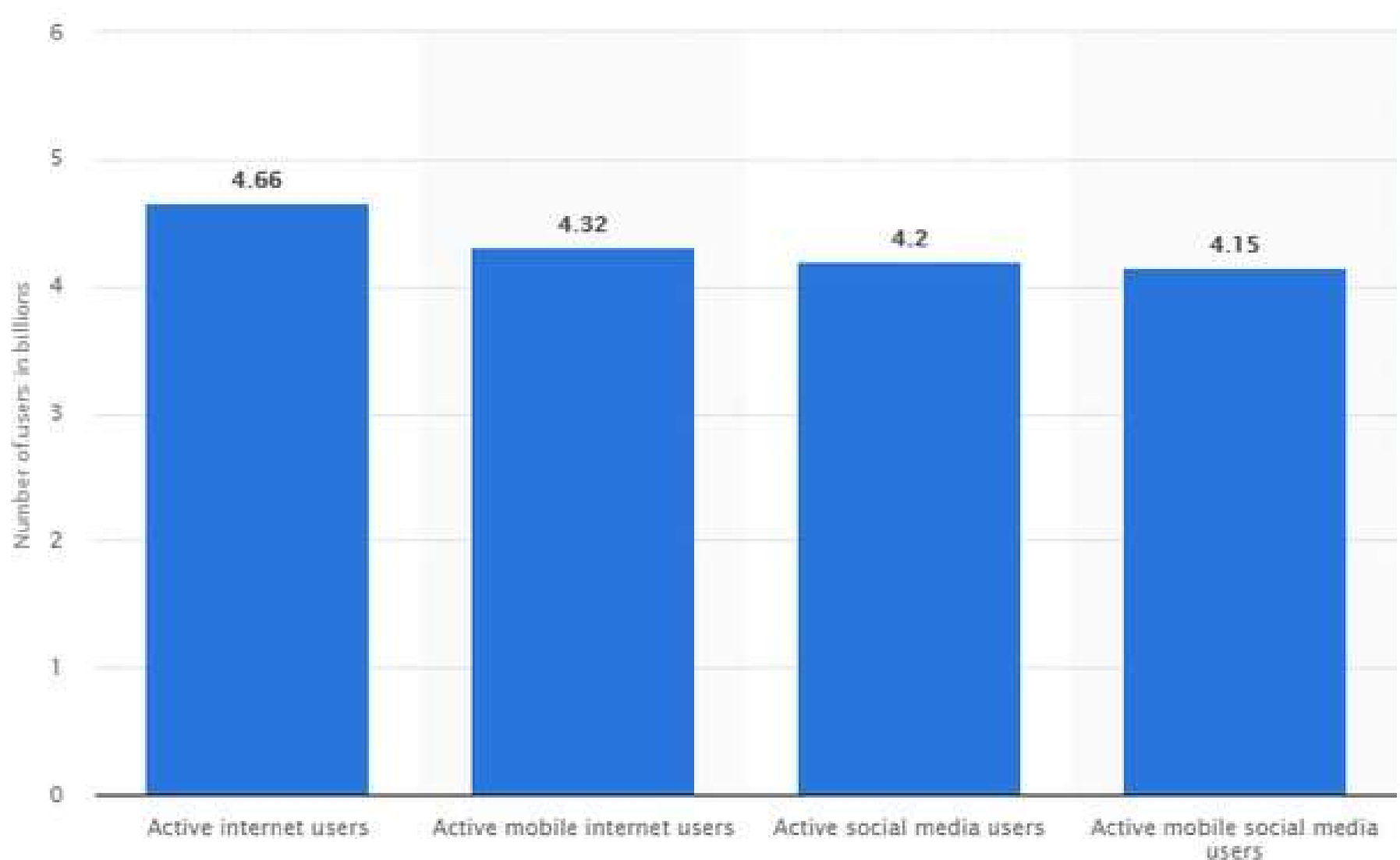




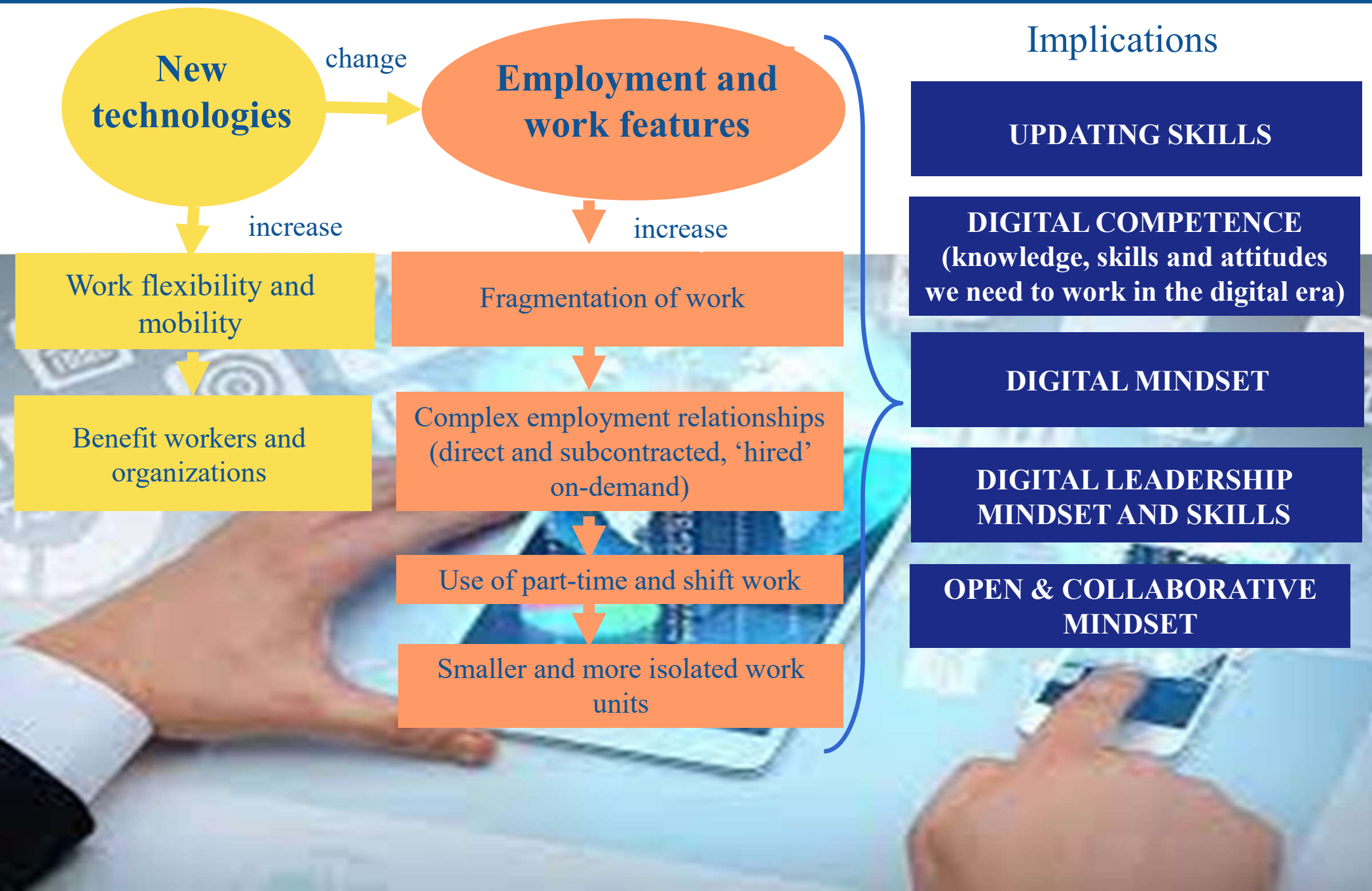
1. Digitalization and Industry 4.0

Global digital population as of January 2021 *(in billions)*

@Statista 2022



Digital transformation & intellectual capital



IC THEORY IMPLICATIONS I



Increasingly, robotization and automation require workers to build digital competencies and to adopt new skill sets needed to work in the new jobs being created (Habraken and Bondarouk, 2017).

- *Proposition 1: Digital skills are an important aspect of human capital in digitalized work-place*



Digital-era organizations must not only cope with disruptive technologies and innovation, but adapt their business philosophies and business models, including mindset (organizational and individual), culture, and competencies to a digital way of working (Murakowski and Bick, 2017)

- *Proposition 2: Open digital culture is an important facet of structural capital in digitalized work-place*

2. REMOTE AND GIG WORK

- ✓ outside the boundaries of organizations
- ✓ detached from traditional fixed places of work
- ✓ locationally distributed work and virtual work
- ✓ hiring on 'contingent' or 'fixed-term contracts'

GIG WORK

Short-term jobs
(gigs)



Change the
organization,
work
relationships
and nature of
work

DIGITAL NOMADS

Emerging mobile
work and lifestyle



FLEXIBLE WORK ARRANGEMENTS

Flexplace &
flexitime

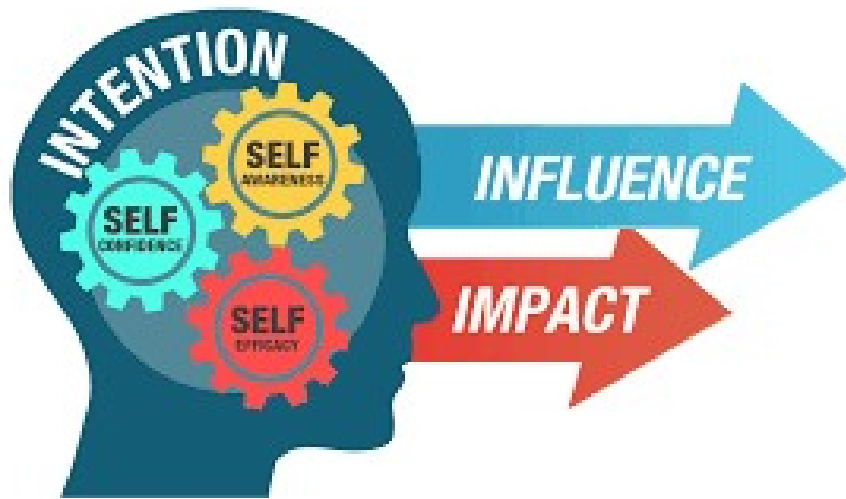


VIRTUAL TEAMS

Team members
collaborate by
technology



IC consequences



REMOTE WORK - Externalization of employee, more fluid work relationships and shorter in duration (Hollister, 2011), less under traditional control mechanisms.

SELF-LEADERSHIP (Manz, 1986; Manz and Sims, 1986) is a process through which people are influenced to achieve the necessary self-direction and self-motivation to behave and perform in desirable ways.

Proposition 3: Self leadership is an important aspect of human capital in remote work contexts

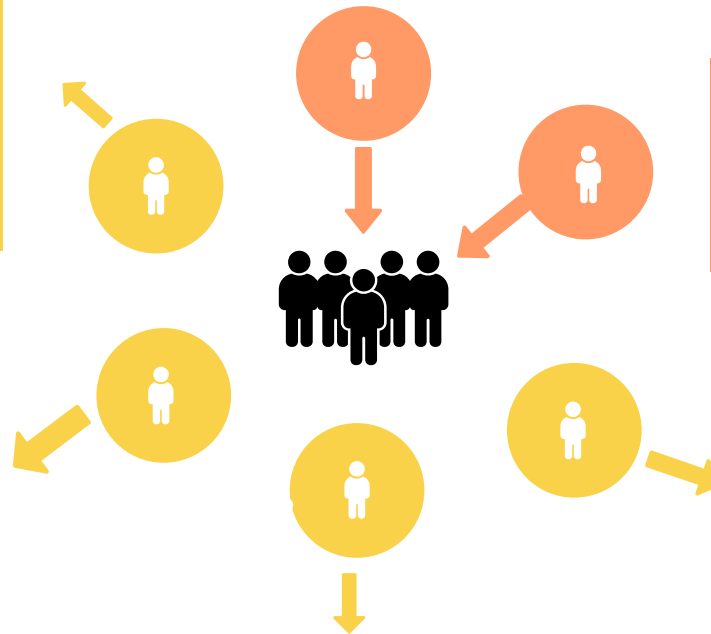
Externalization of human capital

ONGOING DISCUSSION - How to consider knowledge, skills and experience of workers with zero hours contracts - as a part of organizational human capital or not?

So far, most companies discuss their human capital taking into consideration only human-based resources of persons employed by the company

No matter of their formal employment status, workers that create value for a company, should be counted as its human capital

Update the concept of human capital to include non-standard workers



Many types of contingent work do not fit into categories we usually use to measure human capital

Remote workers - 'faceless crowd of disposable commodities rather than prized human assets' (Donnelly and Johns, 2021)

An ASSET - any resource owned or controlled by an economic entity. Remote workers that are not fully owned or controlled by a company do not represent its human capital.

Externalization of Work

IC THEORY IMPLICATIONS II

PROS

Saving on labor and related costs

Becoming more agile

CONS

Work relationship become more fluid and short-time

Workforce may not have the same loyalty

Managing this workforce can be a great challenge

IC implications

Leadership and Talent Management

Self-leadership

Human resource management (HRM) practices

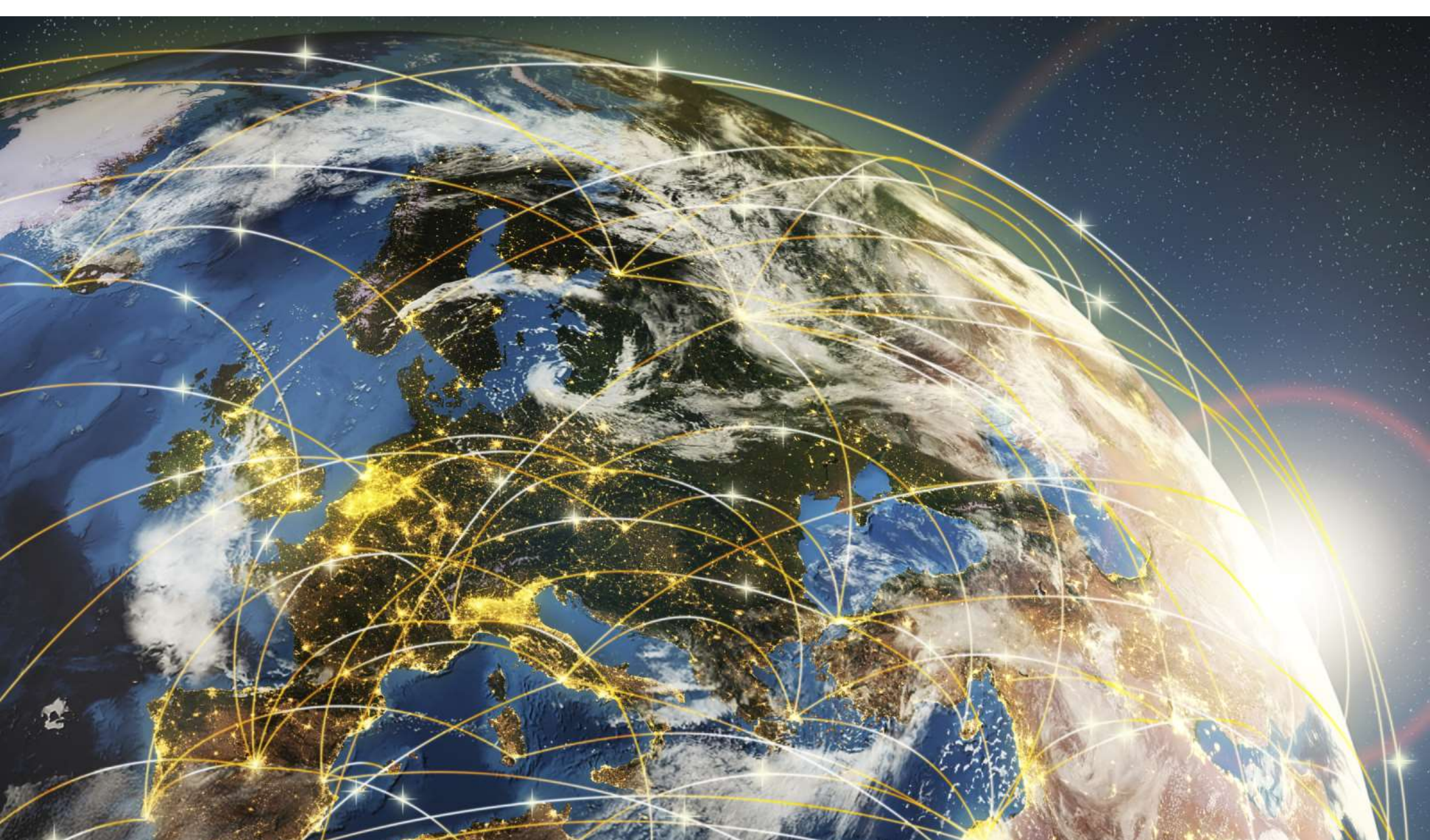
Reexamination of organizational theories and models

EXTERNALIZATION OF HUMAN CAPITAL

Independent contractors & External value co-creators

INTELLECTUAL CAPITAL MODEL

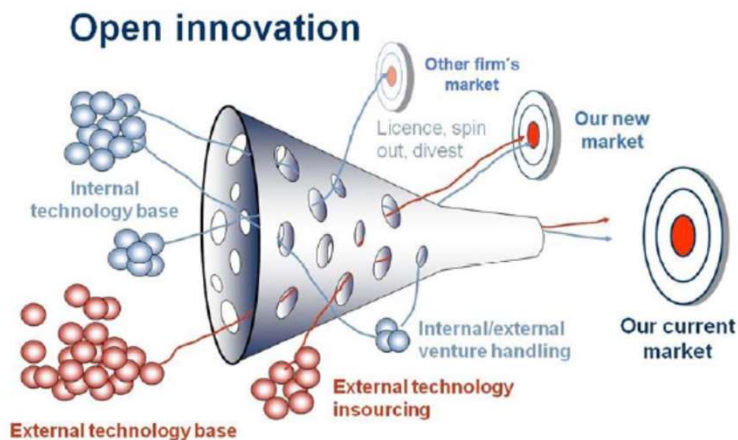
INTELLECTUAL CAPITAL MANAGEMENT AND MEASUREMENT



3. Open Innovation & Crowdsourcing

OPEN AND PARTICIPATIVE INNOVATION (OI 2.0)

- ✓ Sharing knowledge within and across organizational boundaries
- ✓ Exploiting both, internal and external knowledge and ideas (Chesbrough, 2003)
- ✓ Bi-directional knowledge flows



Source: Curley and Salmelin, 2013

Include external
knowledge
sources in
innovation



CROWDSOURCING

- ✓ The use of outside sources for ideation, and crowd wisdom or collective intelligence in value creation (Brabham, 2013).
- ✓ Opening the process of getting ideas or performing tasks up to the public
- ✓ Asking the crowd to share knowledge in order to improve its own experience

IC THEORY IMPLICATIONS III

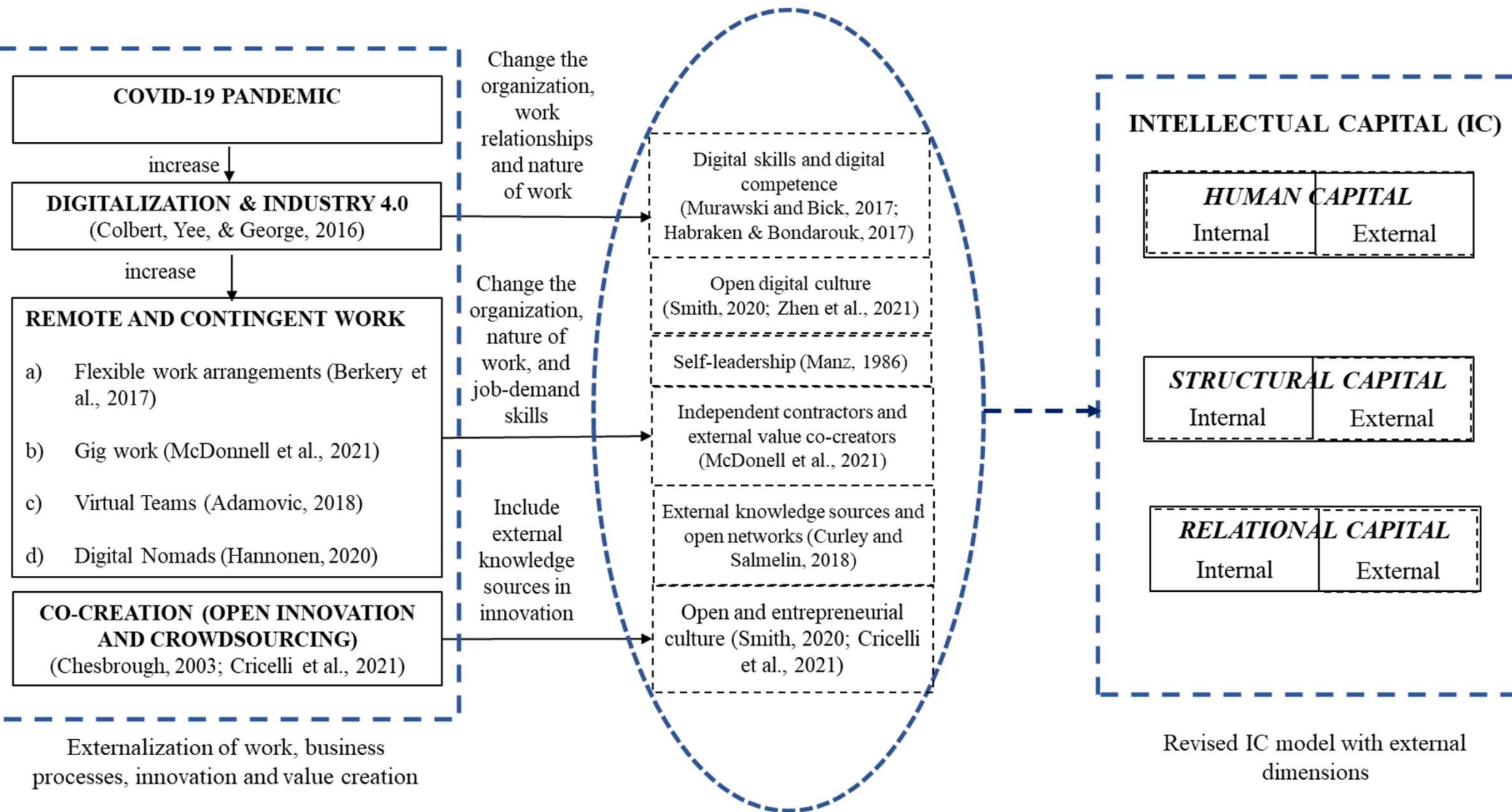
Open innovation (OI) process: inbound OI (outside-in processing) + outbound OI (inside-out processing) (Gassmann et al, 2010; Huizingh, 2011). Inbound OI refers to the internal use of external knowledge, from various innovation sources such as partners, customers, universities, and research organizations; and, outbound OI refers to external exploitation of internal knowledge, through the sale of patents, or through direct licensing (Cricelli et al, 2021).

Proposition 5: External IC resources are important for open innovation

The adoption of OI strategies asks for the reorganization of how processes are carried out, that need to be linked to a new and more open and entrepreneurial culture, a cooperative behavior, and a collaborative mindset of the people involved (Cricelli et al, 2021).

Proposition 6: Open and entrepreneurial culture is an important facet of structural capital that supports crowdsourcing and use of collective intelligence

Reconceptualization of IC



Externalization of IC & Open IC approach
(Chen et al., 2015)

Consequences for IC theory

IC components

Human capital

- ✓ an increasing amount of human intellect working for a firm that may come from outside the realm of its fully employed
- ✓ the inclusion of freelancers in terms of human capital
- ✓ self-leadership skills are an outstanding aspect of human capital

Structural capital

- ✓ “the wisdom of crowds”, sharing economy
- ✓ open and collaborative entrepreneurial culture represents an important new facet of structural capital
- ✓ Digital culture

Relational capital

- ✓ splitting relational capital into basic internal and external components once and for all
- ✓ External relational capital includes relationships with external knowledge and value co-creators
- ✓ External relational capital is a critically important aspect for collaborative/open innovation

Conclusions

- To remain relevant, IC theory should be updated
- We proposed a revised understanding of
 - **IC components**, and
 - **IC Internal/external boundaries**
- Enables new research models to better understand value creation in a knowledge-based economy
- Limitations & future research:
 - Theoretical paper
=>testing and further developing by empirical research
 - Limited perspectives taken
=> New contingencies/moderators, e.g. remote work, mode of organizing
=> New outcomes/performance variables, e.g. open innovation, sustainability, resilience



DEVELOPING INTELLECTUAL CAPITAL BUILDING A BETTER FUTURE

Thank you for your attention and stay in touch
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