INFORMING SCIENCE INSTITUTE
Exploring Better Ways To Inform

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Synthesizing Design and Informing Science Rationales for Driving a Decentralized Generative Knowledge Management Agenda

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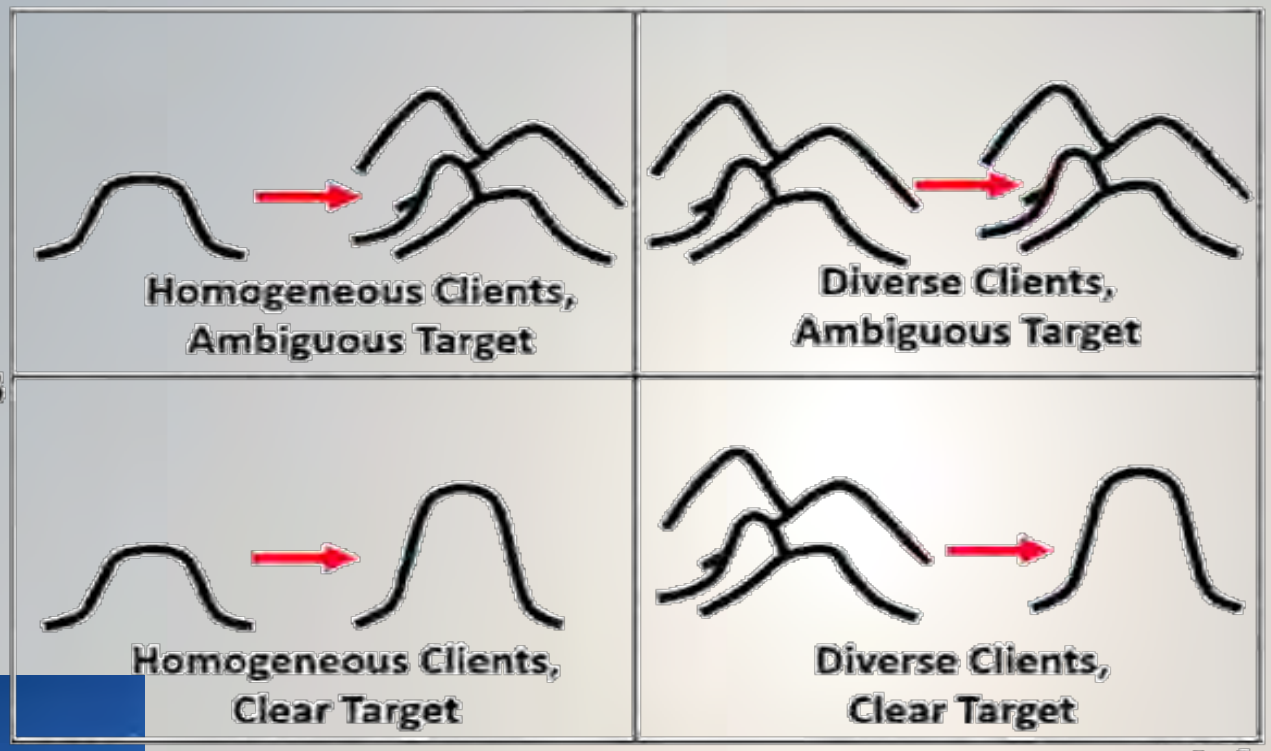
To:
Ruggedness
of Target
Fitness

High



Low

Low

High

From: Diversity of Initial Client Peaks

InSITE 2018, June 23-28 2018, La Verne, CA:

Gill & Mullarkey (2017)
Fitness, Extrinsic Complexity and Informing Science.

Schmitt (2018)
From Ignorance Map to Informing PKM4E Framework.

Knowcations®

Digital Platform Ecosystem (DPE)

Organizational KM Systems

Learning Management System (LMS)

Personal Learning Environment (PLE) (Extelligence)

Central Curation & Cloud Services

W.h.o.m.e.r.™ Repository

PKMS Repository (Ideosphere)

Meme-based Learning Assets

Creative Conversations via Personal KMS Devices

Transfer of Memes after Conclusion of Learning

Voluntary Sharing of Meme-based Content

Real-World Ideoshere

PKMS Devices (Technology)

Social Agent (Knowledge Worker)

PKMS Community (Society)

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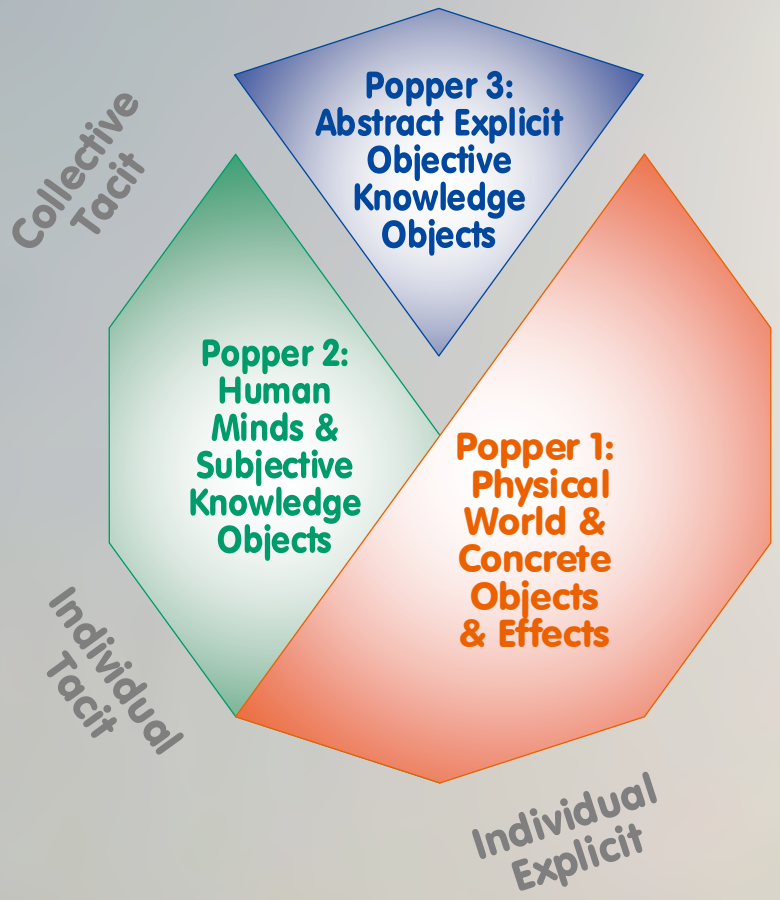

Popper's Three Worlds (1978)

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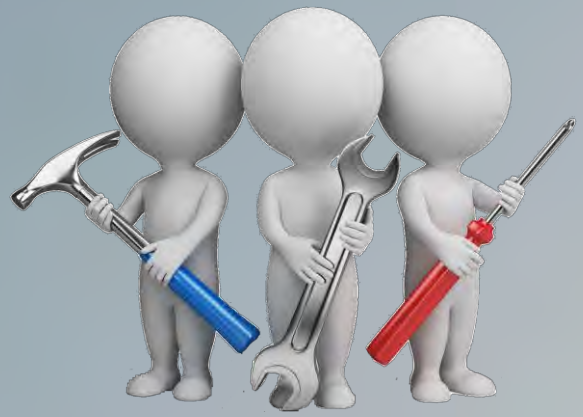

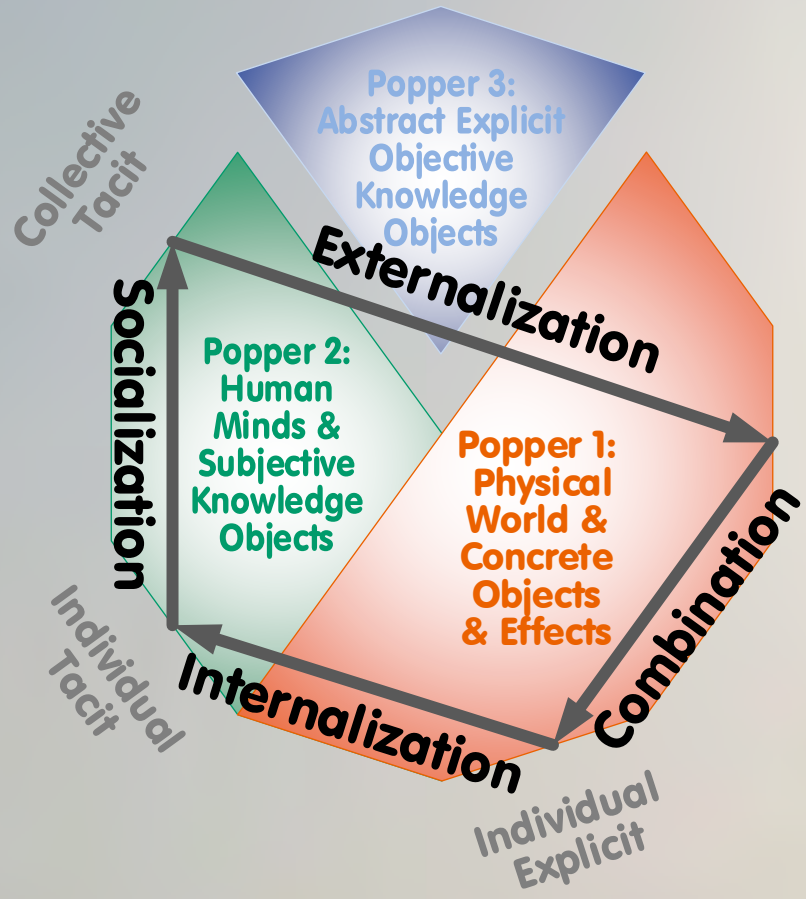

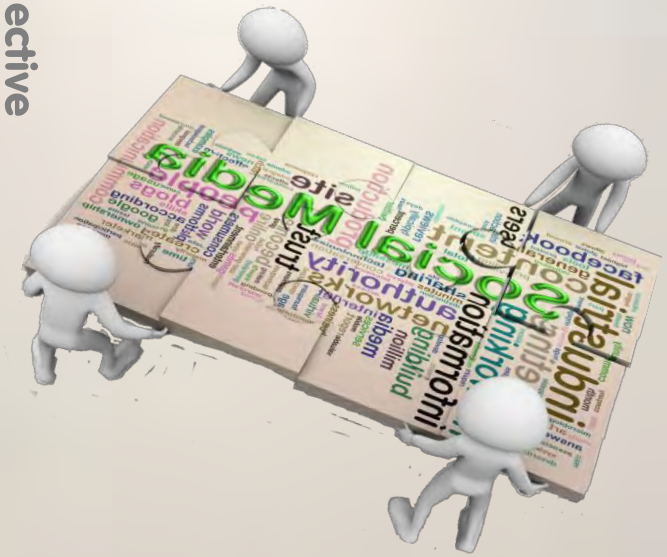

Nonaka's SECI & Ba Model of Knowledge Creation (1995)

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Information Scarcity substituted by accelerating Information Abundance

Entropy due to rising Share of redundant paste-&-copy Content

Exceeding finite cognitive Attention Individuals are able to master, Invisible Work as undisco-verable private Knowledge

Widening Opportunity & Innovation Divides

Industrial-Age Education rather than Digital-Age Paradigm

Knowledge Siloes & Top-down KM Traditions

Shifting Spheres of Work due to Computerization of non-routine Tasks

Needs for Mobility & Por-tability of Knowledge/Skills

Lack of Personal Tools & Support, e.g. Entry/Exit Barriers, Captured Audiences

Transdisciplinarity to tackle wicked Problems more comprehensively

Beyond limiting disciplinary Borders serving Academics & Professionals, Risk of Islands of undisco-verable public Knowledge

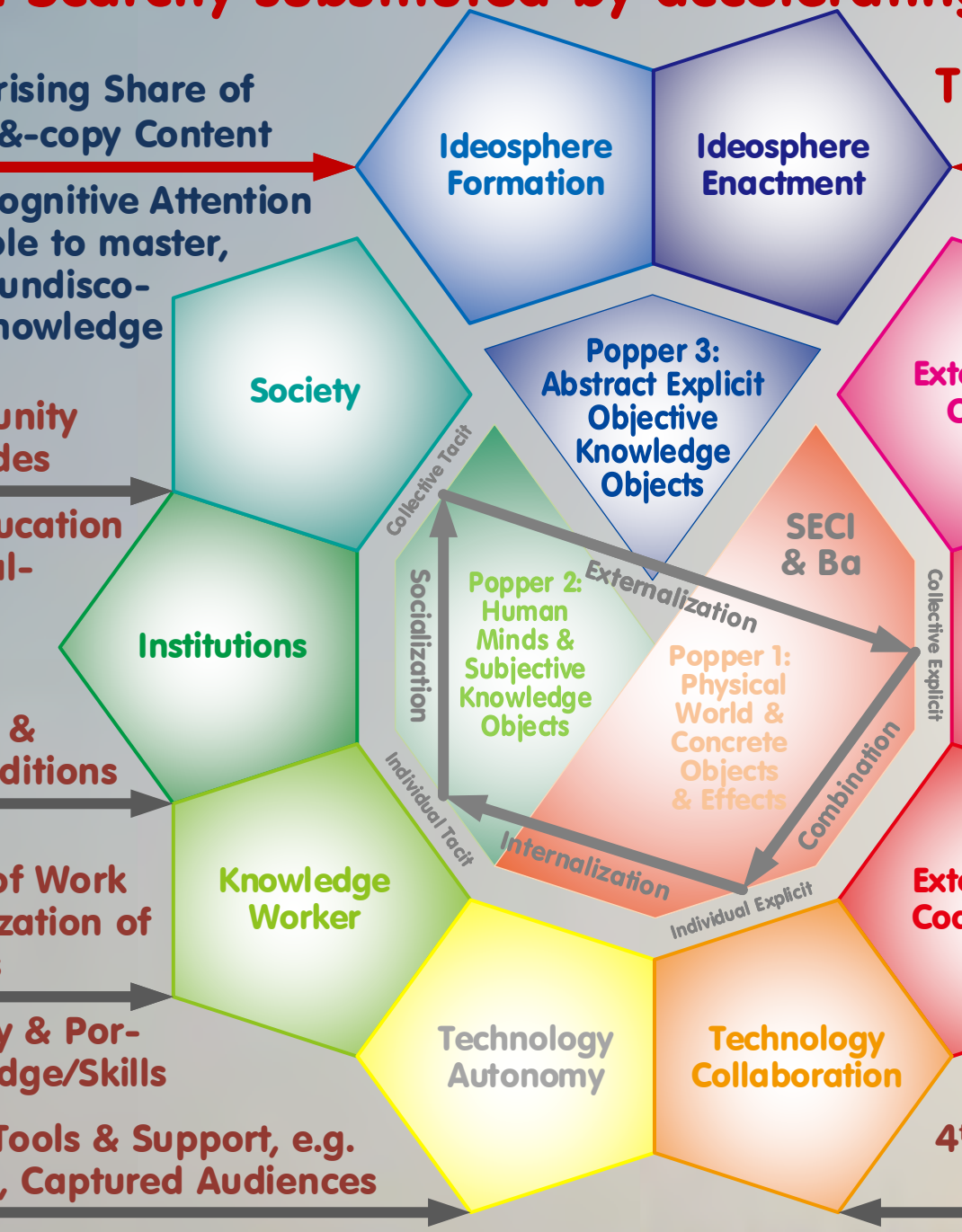
Growth in Specializations, evolving Clusters of Do-main-specific Knowledge

Snowballing Granularity due to differentiating Content Creation, Delivery, Distribution

Book-Age rather than Digital-Age Paradigm

Information Scarcity replaced by accelerating Information Abundance

Incompatible Digital Formats/Devices, 4th Industrial Revolution, Cyber-Physical Systems, Internet of Things, Big Data



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Fitness-Utility-Model (FU) Digital Artefact Attributes (DA) System Attributes (SA) Degrees-of-Freedom-Model (DF)

Synergies & Generativity

SA Leverage, Transferability
FU Antifragility

Negentropy & Imaginativeness

GH Generative Heritage
FU Novelty, Interestingness, Elegance

Accessability & Thrivability

SA Accessability

Transdisciplinarity & Resourcefulness

SA Adaptability
DA Distributedness
FU Malleability

Mobilization & Ambidexterity

SA Accessability
DF Reflection, Interaction

Traceability & Comprehension

DA Granularity
DA Reprogrammability
FU Decomposability

Decentralization & Absorptive Capacity

DF Reflection, Interaction, Repre-sentations, Transience, Laterality

Granularity & Attentiveness

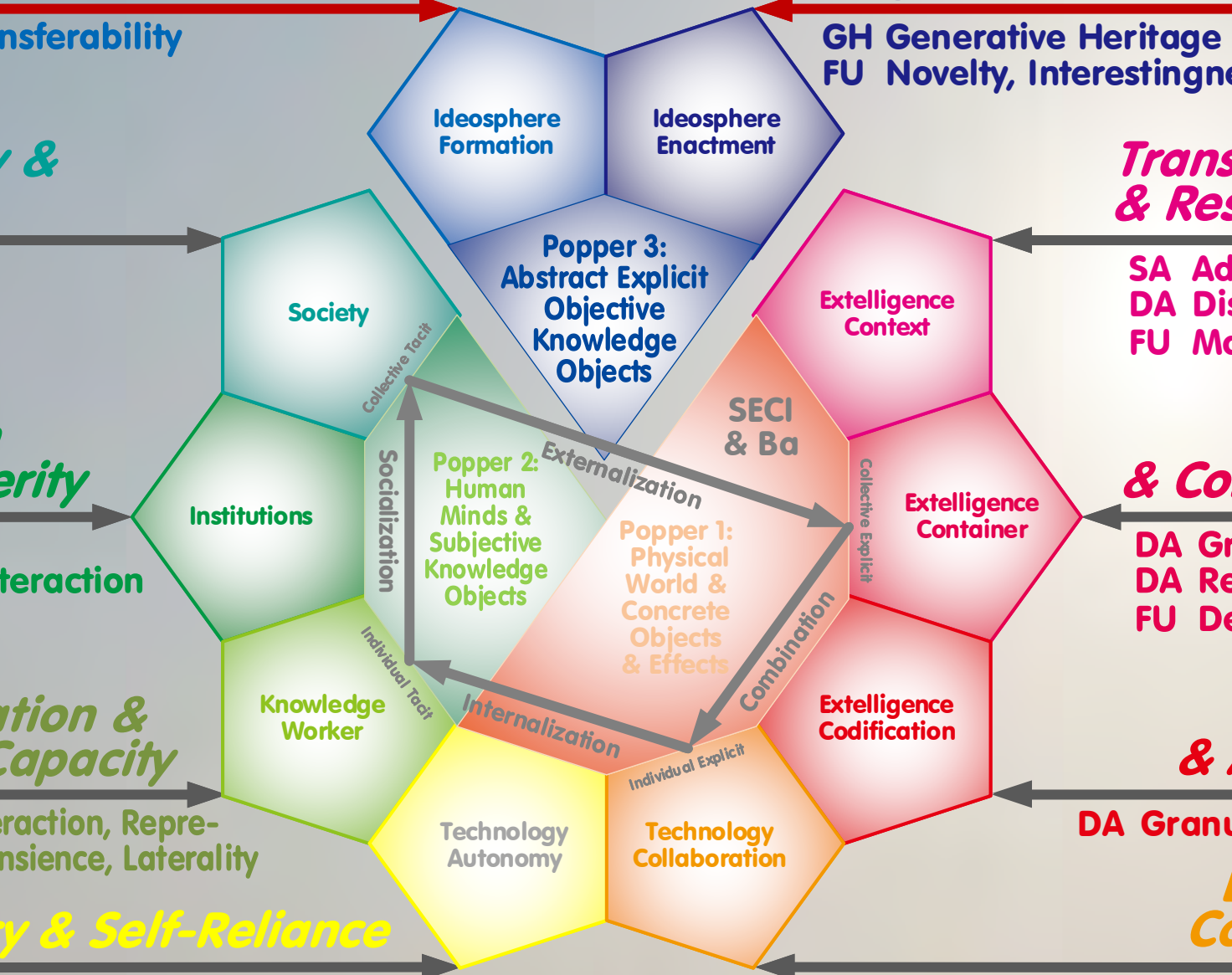
DA Granularity, Editability

Transparency & Self-Reliance

DF Tailorability DF/FU Openness
DA Modularity SA Ease of Mastery

Diffusibility & Connectedness

DA Interactivity, Reflexive Dynamics



Knowcations®

Product Innovation	Relational Innovation	Systemic Roots or Triggers of Innovation
Process Innovation	Cultural Shift	

General-Purpose-Technology-Criteria	General Purpose	Input Characteristic
	Prevalence	Dominant Design

Society: Opportunity Divides

Personal Focus
Cultural Shift 1 - General Purpose 1:
Performing Generic Functions for Downstream Generalized Productivity

Institutions: PKM-OKM-Co-evolution

Personal Focus
Product Innovation 3: General Purpose 2
Promoting Impact by Complementary Innovations in Downstream Sectors

Knowledge Worker: Entrepreneurship/SME

Personal Focus
Process Innovation 1: General Purpose 3
Transforming Economic System driven by Down-stream Productivity Gains

Knowledge Worker: Thriving Community

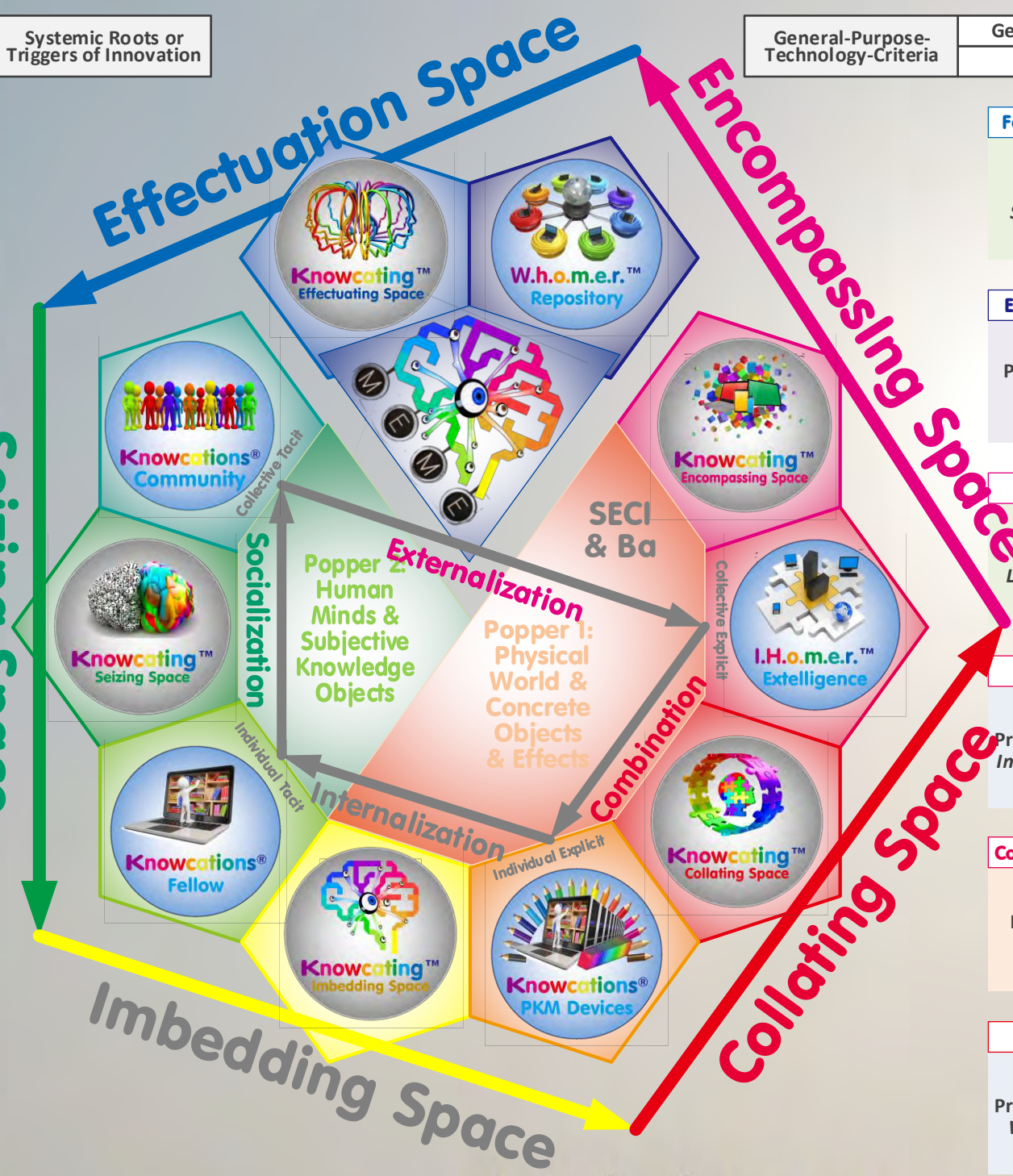
Collaborative Focus
Relational Innovation 1 - Prevalence 3b:
Positive Demand Side Network Effects based on increasing Adoption Rates

Technology Autonomy: 'Nano'-Contributions

Collaborative Focus
Relational Innovation 2 - Prevalence 2:
Quasi-Irreversibility of Switching Costs related to Alternative Options

Tec. Collaboration: ICTs & Schools of KM

Collaborative Focus
Product Innovation 2: Prevalence 1
Systemic Approach facilitating Technical Inter-relatedness of Components



Formation/Design: World 3 into WHOMER

Meme Focus
Cultural Shift 3 - Input Characteristic 3:
Spawning Innovations in a broad Range of Uses and/or Application Sectors

Enactment/Evolution: Eliminating Entropy

Bottom-up Focus
Product Innovation 1: **Dominant Design 1**
Dominant Design based on Usefulness to achieve wide Acceptance & Usage

Context: Diffusion of Ideas

Bottom-up Focus
Cultural Shift 2 - Dominant Design 2:
Leading to Standard winning over Stake-holders' Allegiance in Market Place

Container: Knowledge Genealogies

Meme Focus
Process Innovation 3: Input Characteristic 1
Impact on Technical Change & Productivity Growth across Uses and Industries

Container: Personal Learning Environments

Learning Focus
Relational Innovation 3 - Prevalence 3a:
Externalities from Supply Side Learning Effects (learning by doing or using)

Codification: Universal Utility

Bottom-up Focus
Process Innovation 2: Input Characteristic 2
Wide Scope of Credible Improvements & Prospects for Enabling Environments

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www.researchgate.net/profile/Ulrich_Schmitt2

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