Putting the Horizon Report to Work

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Patterns

The 2013 K12 Horizon Report

Mobile Learning

Open Content

3D Printing

Time-to-Adoption:
One Year or Less

Time-to-Adoption:
Two to Three Years

Time-to-Adoption:
Four to Five Years

Cloud Computing

Learning Analytics

Virtual and Remote Laboratories

The 2012 K12 Horizon Report

Mobile Devices and Apps

Personal Learning Environments

Natural User Interfaces

Time-to-Adoption:
One Year or Less

Time-to-Adoption:
Two to Three Years

Time-to-Adoption:
Four to Five Years

Tablet Computing

Game-Based Learning

Augmented Reality

The 2011 K12 Horizon Report

Mobiles

Time-to-Adoption:
One Year or Less

Open Content

Time-to-Adoption:
Two to Three Years

Personal Learning Environments

Time-to-Adoption:
Four to Five Years

Cloud Computing

Game-Based Learning

Learning Analytics

The 2010 K12 Horizon Report

Collaborative Environments

Mobiles

Flexible Displays

Time-to-Adoption:
One Year or Less

Time-to-Adoption:
Two to Three Years

Time-to-Adoption:
Four to Five Years

Cloud Computing

Game-Based Learning

Augmented Reality

The 2009 K12 Horizon Report

Collaborative Environments

Mobiles

The Personal Web

Time-to-Adoption:
One Year or Less

Time-to-Adoption:
Two to Three Years

Time-to-Adoption:
Four to Five Years

Online Communication Tools
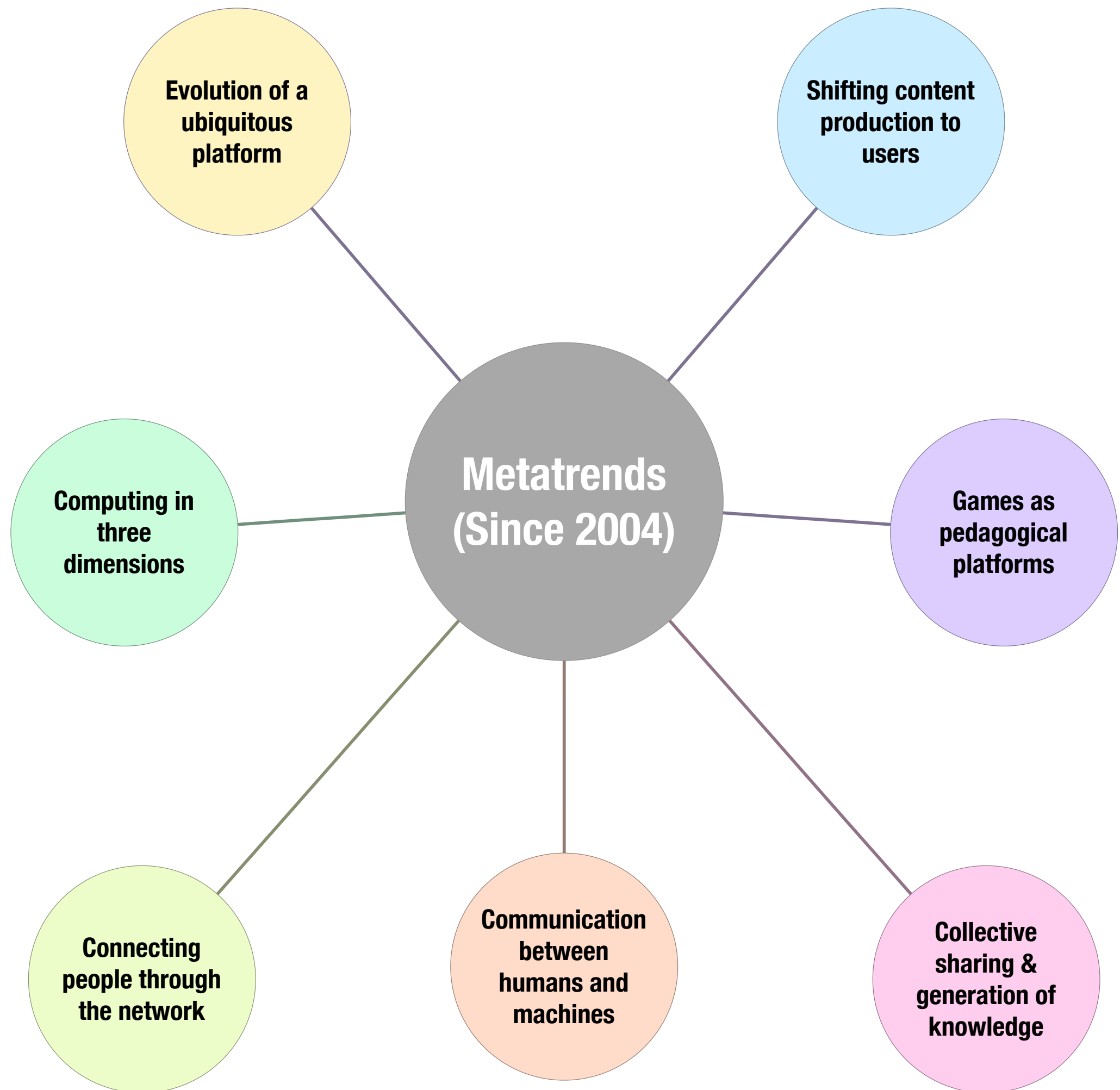
Cloud Computing

Smart Objects

Metatrends (Since 2004)

- Evolution of a ubiquitous platform
- Shifting content production to users
- Computing in three dimensions
- Games as pedagogical platforms
- Connecting people through the network
- Communication between humans and machines
- Collective sharing & generation of knowledge

Social	Mobility	Visualization	Storytelling	Gaming
200,000 years	70,000 years	40,000 years	17,000 years	8,000 years

The 2013 K12 Horizon Report

Mobile Learning

Open Content

3D Printing

Time-to-Adoption:
One Year or Less

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Cloud Computing

Learning Analytics

Virtual and Remote Laboratories

Technology Outlook for Australian Tertiary Education 2013-2018

Mobile Learning

Massive Open Online Courses

Time-to-Adoption: One Year or Less

3D Printing

Information Visualisation

Time-to-Adoption: Two to Three Years

Flexible Displays

Wearable Technology

Time-to-Adoption: Four to Five Years

Learning Analytics

Social Media

Location-Based Services

Badges

Virtual and Remote Laboratories

The Internet of Things

Context

2013 K12 Horizon Report: Key Trends

- Education paradigms are shifting to include online learning, hybrid learning and collaborative models.

- Social media is changing the way people interact, present ideas and information, and communicate.

- Openness — concepts like open content, open data, and open resources, along with notions of transparency and easy access to data and information — is becoming a value.

- As the cost of technology drops and school districts revise and open up their access policies, it is becoming more common for students to bring their own mobile devices.

- The abundance of resources and relationships made easily accessible via the Internet is challenging us to revisit our roles as educators.

2013 K12 Horizon Report: Significant Challenges

- Ongoing professional development needs to be valued and integrated into the culture of the schools.

- Too often it is education's own processes and practices that limit broader uptake of new technologies.

- New models of education are bringing unprecedented competition to the traditional models of education.

- K-12 must address the increased blending of formal and informal learning.

- The demand for personalized learning is not adequately supported by current technology or practices.

- We are not using digital media for formative assessment the way we could and should.

HZ News

The ten hottest EdTech news items: 10 Unread/Week 73

TECH NEWS
Battery In Under 30 Seconds (VIDEO)

Eesha Khare, 18-Year-Old, Invents Device That Charges Cell Phone Batte...

K12

My Flipping Failure

K12

What Teens Feel About Privacy and Social Media

HIED

Multi-Year iPad Deployment At UC Irvine Med School: The Results Are In

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NMC Horizon Library

Horizon Reports and Technology Outlooks

NMC HORIZON REPORT
2012 K-12 Edition

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NMC Horizon Report 2011 Museum Edition

NMC Horizon Report 2010 Edición Iberoamericana

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> Reports and Research

> Technologies to Watch Lists

> Reflections on the Future

News

> Emerging Technologies
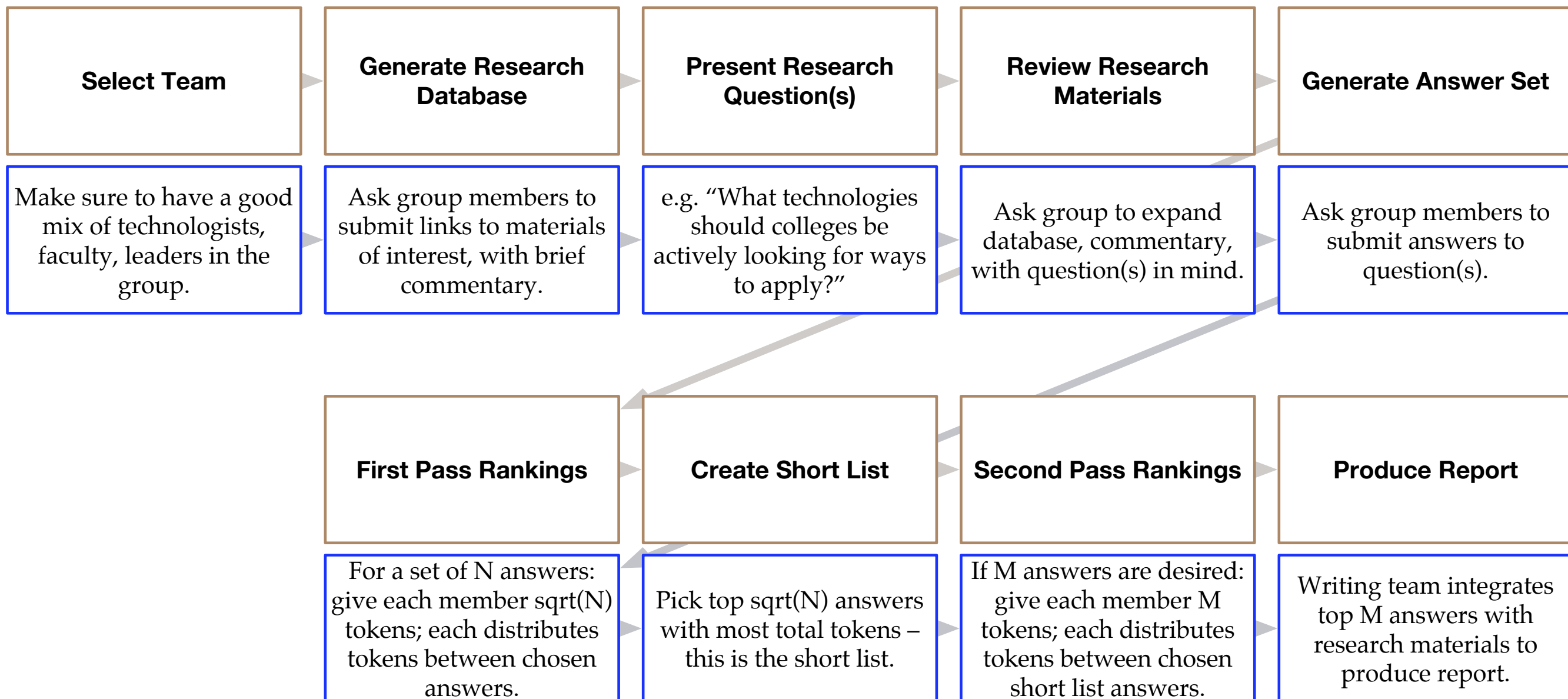
> Challenges and Trends

> Stories and Examples

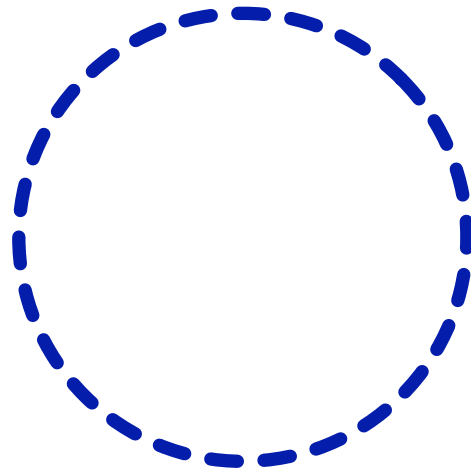> Technology in Popular Culture

The Process

The Steps

Wiki Orientations → Press Clippings → Research Questions → Review of Past Reports → 1st Pass Rankings → Review Short List → 2nd Pass Rankings → Produce Report

Adapting the Process

Select Team	Generate Research Database	Present Research Question(s)	Review Research Materials	Generate Answer Set
Make sure to have a good mix of technologists, faculty, leaders in the group.	Ask group members to submit links to materials of interest, with brief commentary.	e.g. "What technologies should colleges be actively looking for ways to apply?"	Ask group to expand database, commentary, with question(s) in mind.	Ask group members to submit answers to question(s).

| First Pass Rankings	Create Short List	Second Pass Rankings	Produce Report
For a set of N answers: give each member sqrt(N) tokens; each distributes tokens between chosen answers.	Pick top sqrt(N) answers with most total tokens – this is the short list.	If M answers are desired: give each member M tokens; each distributes tokens between chosen short list answers.	Writing team integrates top M answers with research materials to produce report.

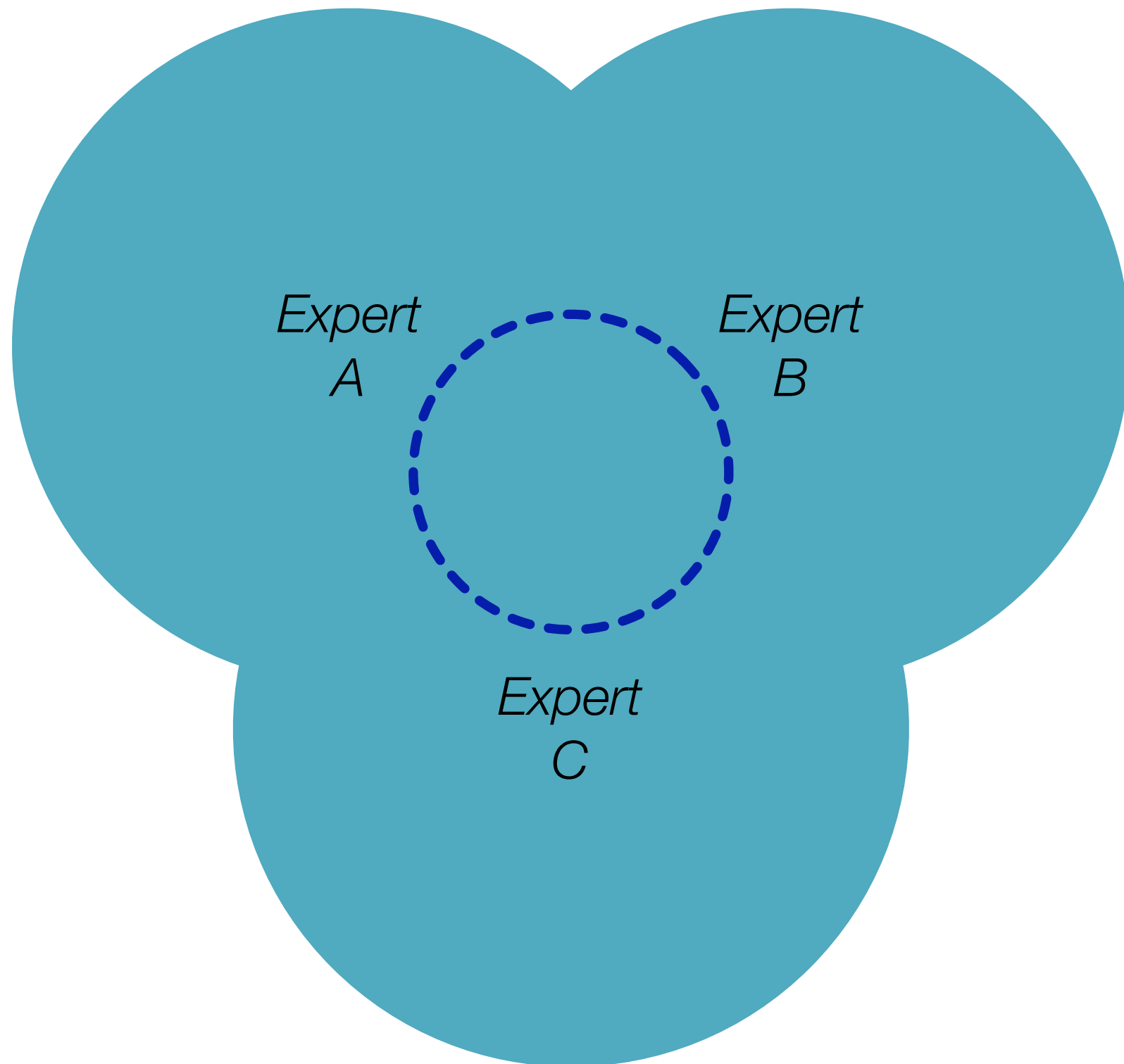# Informing Decision Making: the Delphi Method
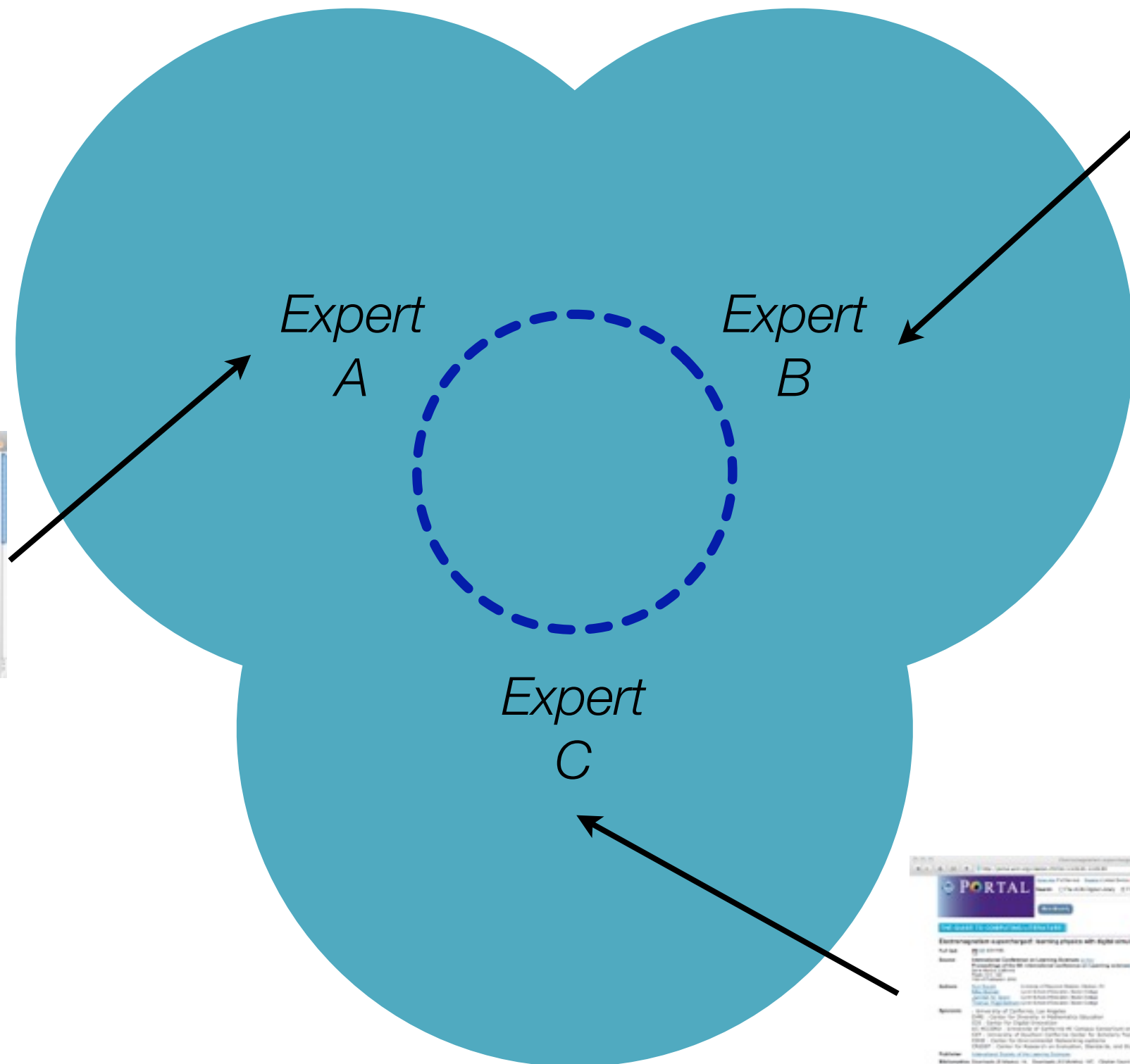
Wanted: the Relevant Information Space

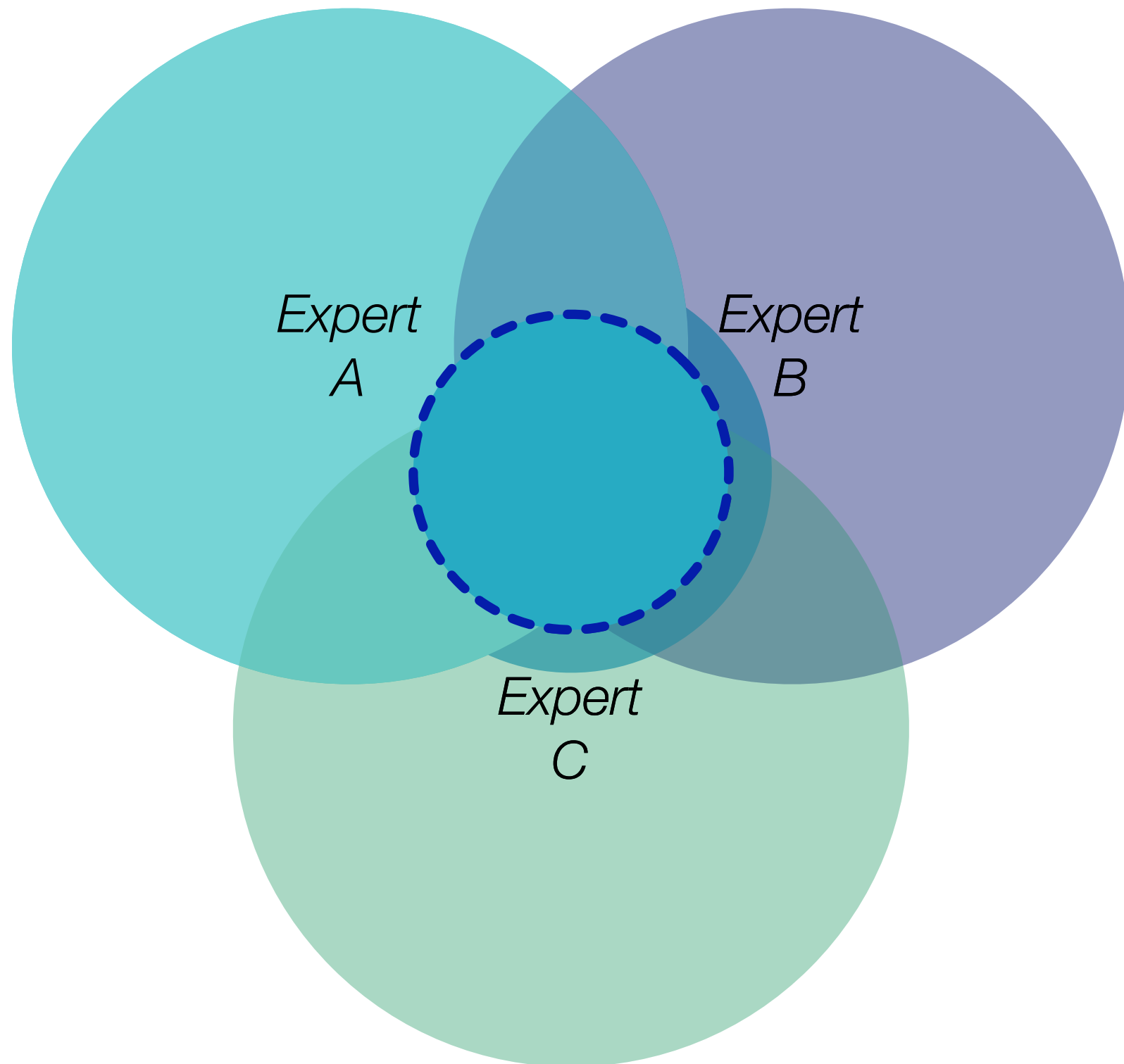# Stage 1: Bringing In the Experts
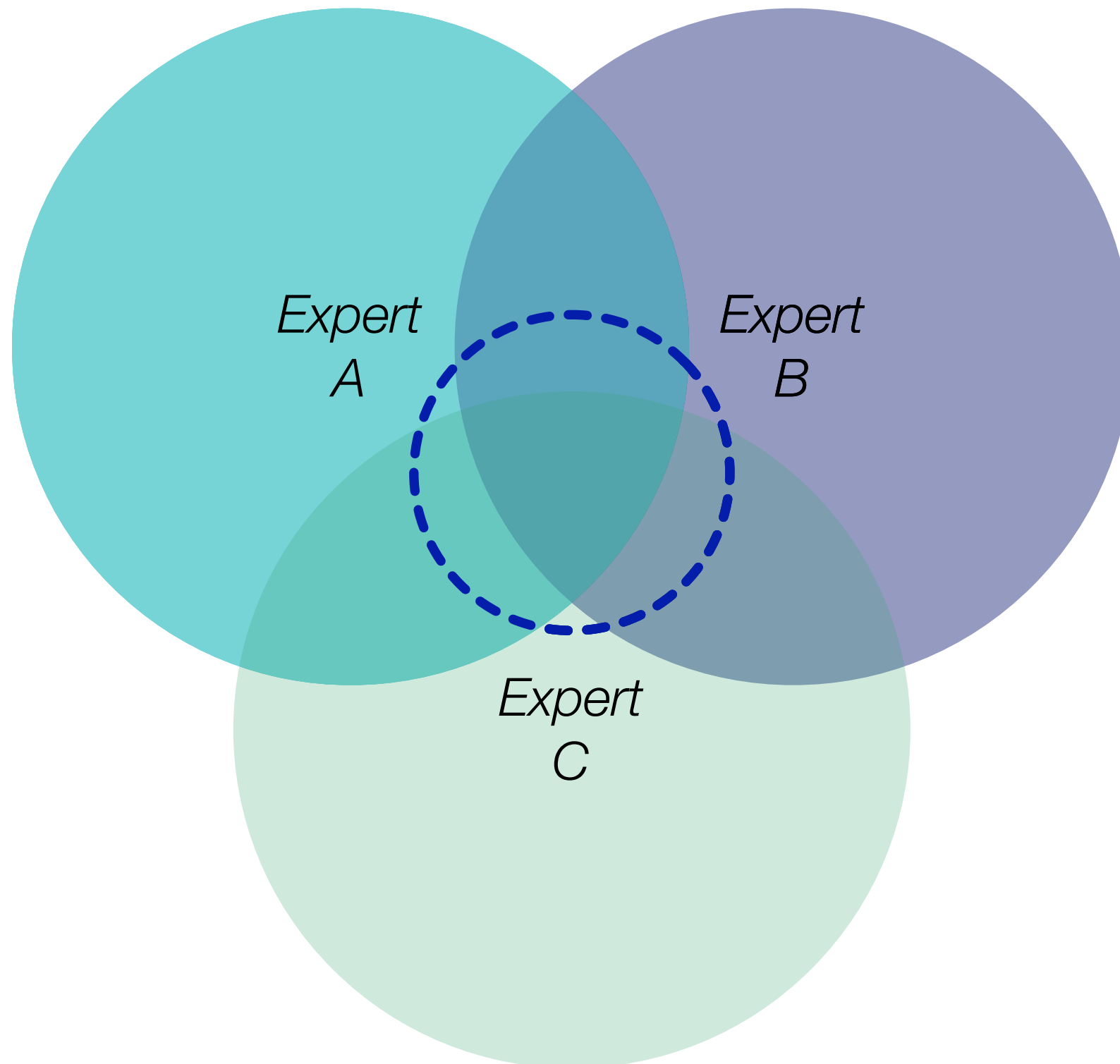
Stage 2: Aggregating the Replies

Stage 3: Informing the Process

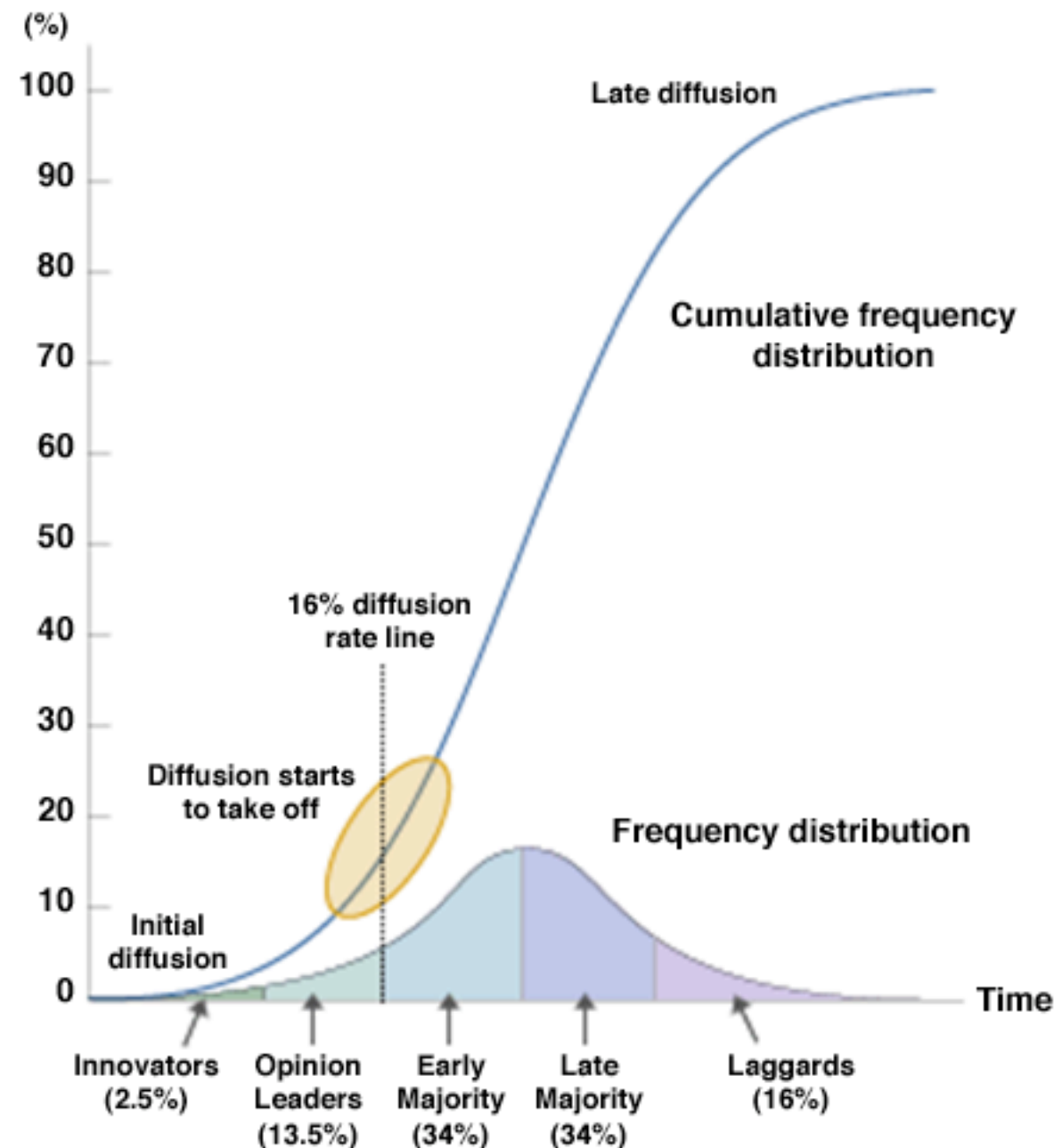# Stage 4: Selecting the Relevant Information Space

Things to Keep In Mind

- Change some, but not all, of your expert panel members each year:

  - Too much change leads to unstable recommendations, too little change leads to groupthink-like phenomena.

- Make sure you have a broad range of expertise and backgrounds in your expert panel:

  - Not everyone should be a technologist, or a teacher, or an administrator.

- Make sure your panel has innovators, opinion leaders, and early majority members (*cf.* Rogers) on it:

  - Panels that only feature innovators tend to produce recommendations that are not representative of the needs of the institution as a whole.
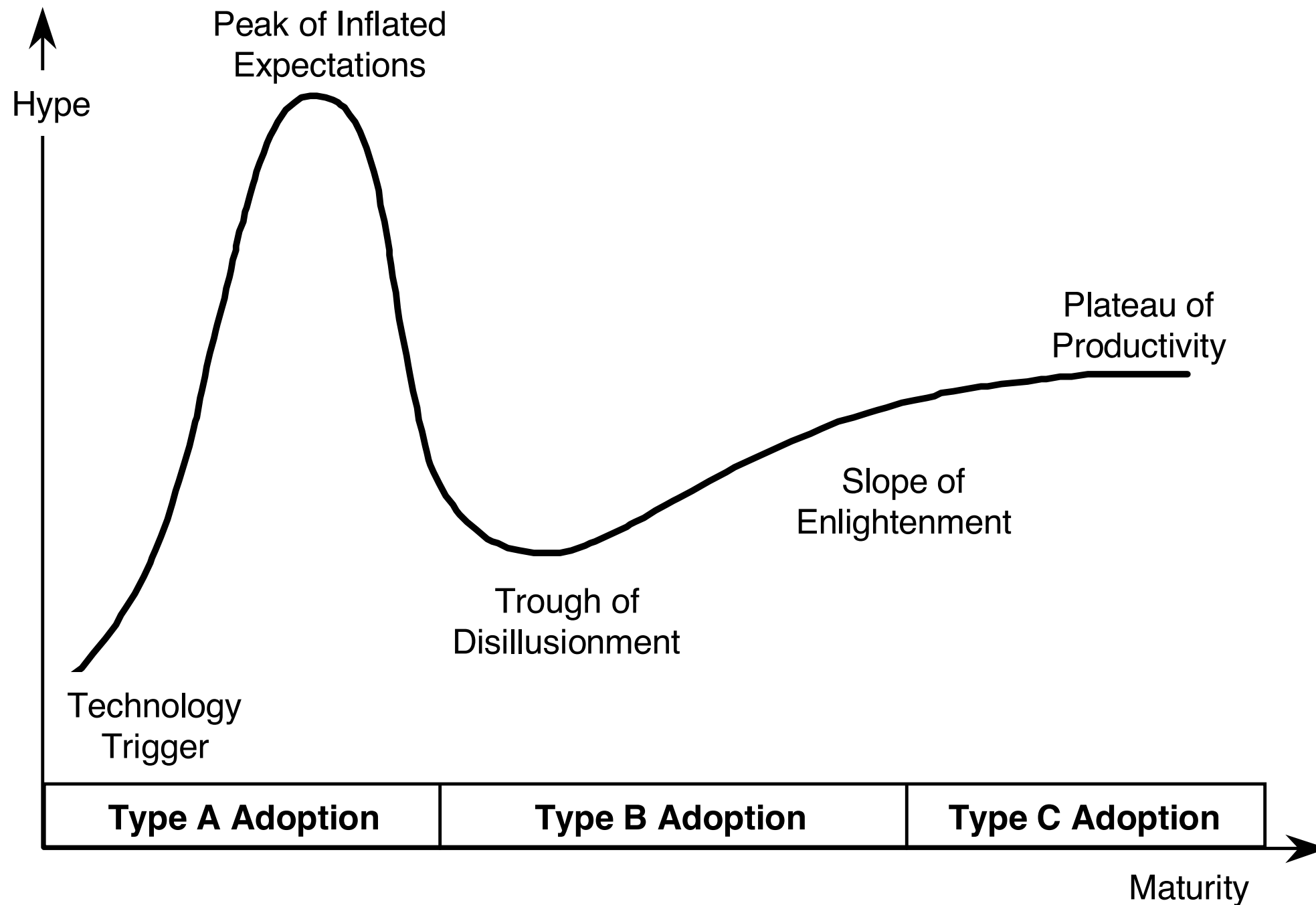
Additional Toolkits

How Innovations Spread
(Everett M. Rogers, *Diffusion of Innovations*)

The Gartner Hype Cycle

Hype

Peak of Inflated
Expectations

Plateau of
Productivity

Slope of
Enlightenment

Technology
Trigger

Trough of
Disillusionment

Type A Adoption	**Type B Adoption**	**Type C Adoption**

Maturity

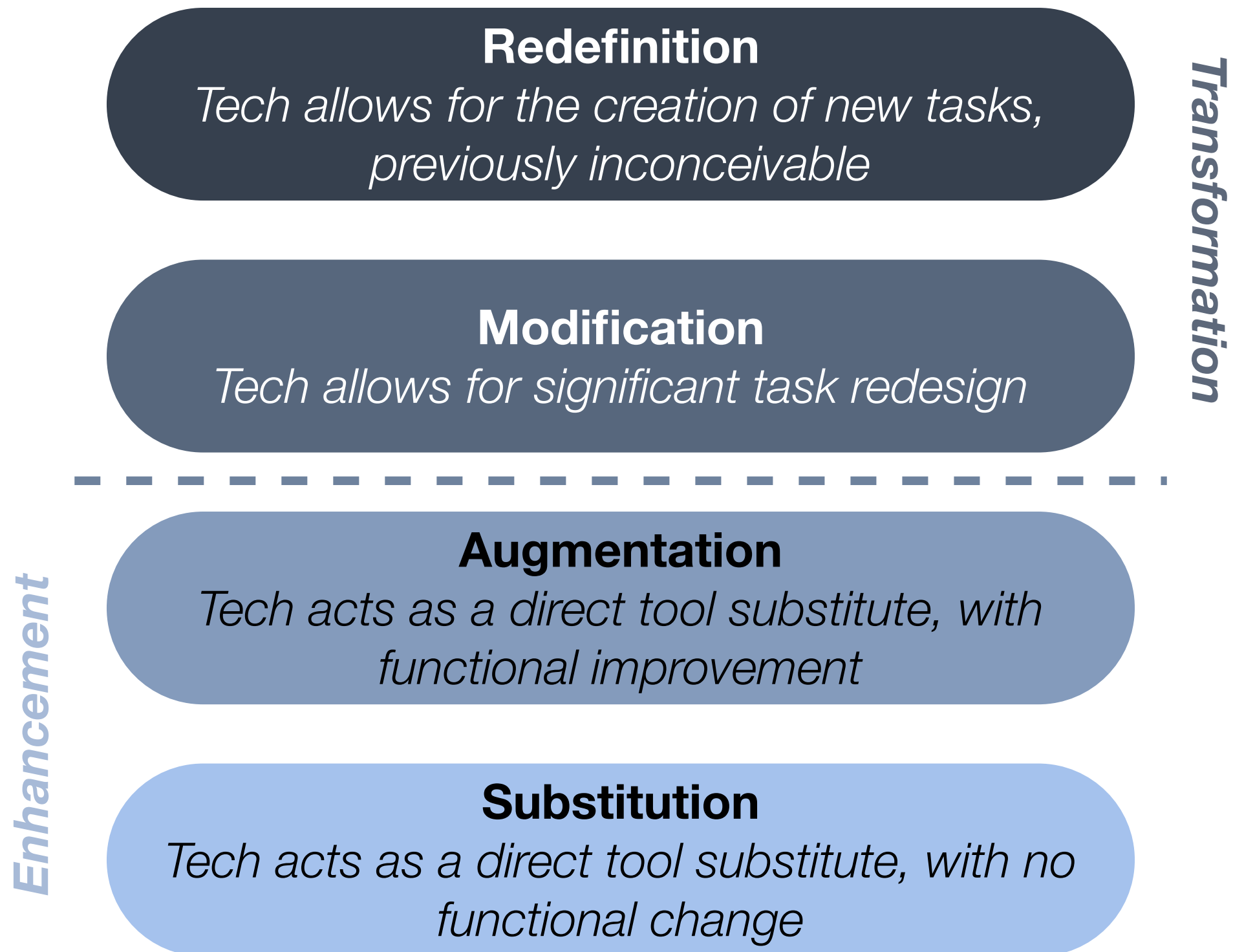# The Gartner Hype Cycle: Phases and Adoption Types

- **Five Phases:**

  - *Technology Trigger*: a new technology generates significant press and industry interest;

  - *Peak of Inflated Expectations*: a flurry of well-publicized activity results in some successes, but more failures;

  - *Trough of Disillusionment*: the technology becomes unfashionable, and the press abandons the topic;

  - *Slope of Enlightenment*: focused experimentation and solid hard work lead to a true understanding of the technology's applicability, risks, and benefits;

  - *Plateau of Productivity*: the real-world benefits of the technology are demonstrated and accepted.

- **Three Adoption Types:**

  - *Type A*: technologically aggressive organizations.

  - *Type B*: technologically low risk organizations, focused on maintaining competitiveness.

  - *Type C*: technologically cautious organizations, focused on cost reduction.

The SAMR Model (Puentedura, 2003)

Redefinition
Tech allows for the creation of new tasks, previously inconceivable

Modification
Tech allows for significant task redesign

Augmentation
Tech acts as a direct tool substitute, with functional improvement

Substitution
Tech acts as a direct tool substitute, with no functional change

Transformation

Enhancement

Bibliography

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Hippasus
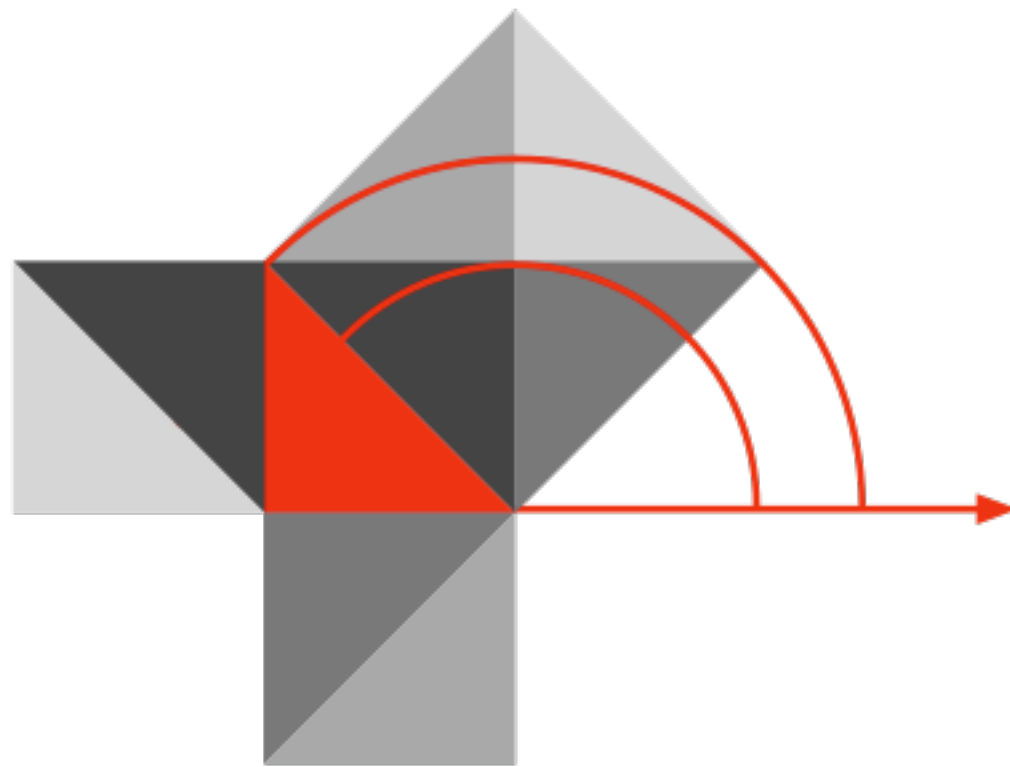
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