# Technology Pedagogical Content Knowledge

Technological Pedagogical Content Knowledge (TPACK ) is a framework that identifies

the knowledge teachers need to teach effectively with technology. The TPACK

framework extends Lee Shulman's idea of Pedagogical Content Knowledge (PCK).

Punya Mishar and Matthew J. Koehler, professors at Michigan State University, are

credited with extensive work in constructing the TPACK framework

# MODEL OF TPACK



**Technological Pedagogical Content Knowledge (TPACK)**

Technological Pedagogical Knowledge (TPK)

Technological Knowledge (TK)

Technological Content Knowledge (TCK)

Pedagogical Knowledge (PK)

Content Knowledge (CK)

Pedagogical Content Knowledge (PCK)

Contexts
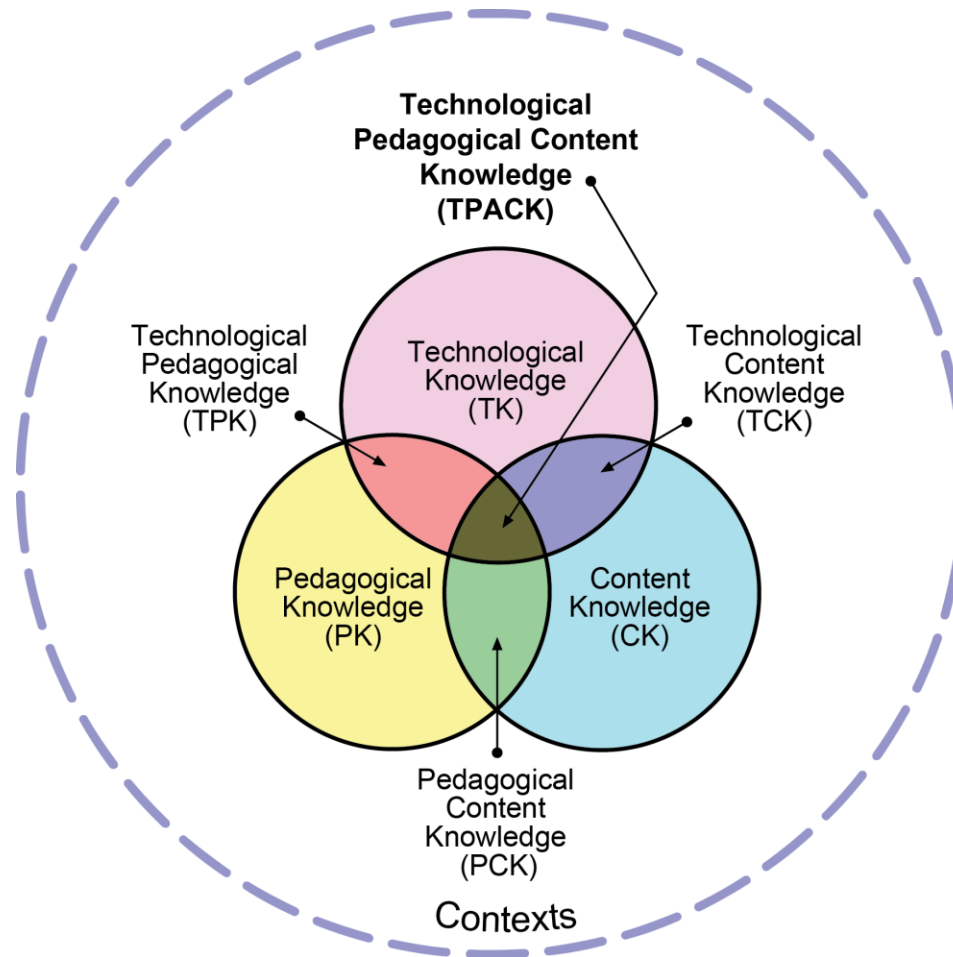
# Components of TPACK

- Content Knowledge

- **This describes teachers' own knowledge of the subject matter. CK may include knowledge of concepts, theories, evidence, and organizational frameworks within a particular subject matter; it may also include the field's best practices and established approaches to communicating this information to students. CK will also differ according to discipline and grade level – for example, middle-school science and history classes require less detail and scope than undergraduate or graduate courses, so their various instructors' CK may differ, or the CK that each class imparts to its students will differ.**

- **Pedagogical Knowledge (PK) – This describes teachers' knowledge of the practices, processes, and methods regarding teaching and learning. As a generic form of knowledge, PK encompasses the purposes, values, and aims of education, and may apply to more specific areas including the understanding of student learning styles, classroom management skills, lesson planning, and assessments.**

- **Technological Knowledge (TK) –**

**This describes teachers' knowledge of, and ability to use, various technologies, technological tools, and associated resources. TK concerns understanding edtech, considering its possibilities for a specific subject area or classroom, learning to recognize when it will assist or impede learning, and continually learning and adapting to new technology offerings.**
**Pedagogical Content Knowledge (PCK) –**

**This describes teachers' knowledge regarding foundational areas of teaching and learning, including curricula development, student assessment, and reporting results. PCK focuses on promoting learning and on tracing the links among pedagogy and its supportive practices (curriculum, assessment, etc.), and much like CK, will also differ according to grade level and subject matter. In all cases, though, PCK seeks to improve teaching practices by creating stronger connections between the content and the pedagogy used to communicate it.**

- **Technological Content Knowledge (TCK) –** This describes teachers' understanding of how technology and content can both influence and push against each other. TCK involves understanding how the subject matter can be communicated via different edtech offerings, and considering which specific edtech tools might be best suited for specific subject matters or classrooms.

- **Technological Pedagogical Knowledge (TPK)** – This describes teachers' understanding of how particular technologies can change both the teaching and learning experiences by introducing new pedagogical affordances and constraints. Another aspect of TPK concerns understanding how such tools can be deployed alongside pedagogy in ways that are appropriate to the discipline and the development of the lesson at hand.

- **Pedagogical Content Knowledge (PCK)**—understanding the best practices for teaching specific content to your specific students.

- **Technological Content Knowledge (TCK)**—knowing how the digital tools available to you can enhance or transform the content, how it's delivered to students, and how your students can interact with it.

- **Technological Pedagogical Knowledge (TPK)—** understanding how to use your digital tools as a vehicle to the learning outcomes and experiences you want.