SAMR
Substitution Augmentation Modification Redefinition

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Dr. Ruben Puentedura

- Founder and President of Hippasus
  - Consulting firm
  - Based in Western Massachusetts
  - Focusing on transformative applications of information technologies to education
- Implemented these approaches for over twenty-five years
  - K-20 educational institutions
  - Health organizations
  - Arts organizations
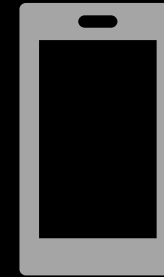
Dr. Ruben Puentedura

<u>Creator of the SAMR Model</u>

Selecting, using, and evaluating technology in education

Currently guides the work of the Maine Learning Technology Initiative, as well as multiple other projects worldwide

Author of *The EdTech Quintet*, a categorization of the core technology toolset required for education derived from the Horizon Report

<u>Current work explores new directions</u>

Mobile computing

Digital storytelling

Learning analytics

Educational gaming

SAMR Defined

Model of technology integration into curriculum and eventually into the classroom

Specific educational framework that divides classroom technology into distinctive categories

Assist educators in development of instruction with technology

SAMR Model + Blooms Taxonomy

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
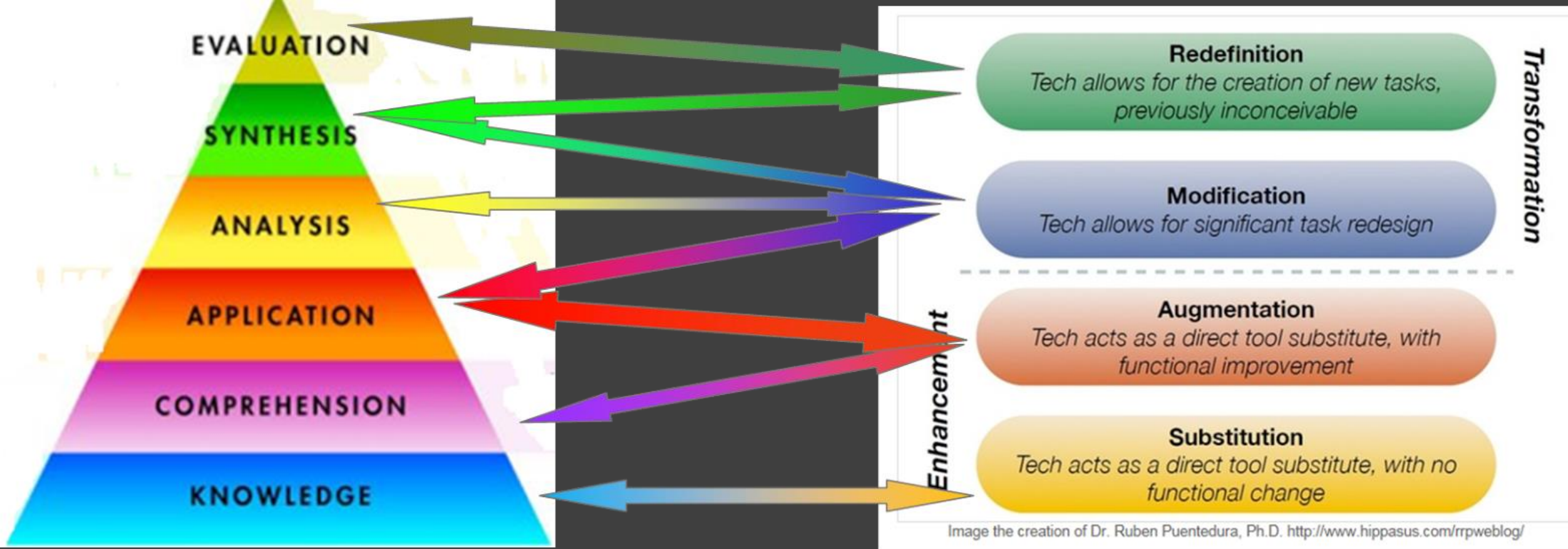
Create

Evaluate

Analyze

Apply

Understand

Remember

SAMR & Bloom's Taxonomy

Four Levels of SAMR

- ➤ **S**ubstitution
- ➤ **A**ugmentation
- ➤ **M**odification
- ➤ **R**edefinition

Level 1: Substitution

➢ Teacher is exploring with technology integration

➢ Experimentation through substitution

➢ Traditional classroom tools are evaluated, focus is given on how to replace the traditional technique of conducting class and transform it digitally

➢ No functional/substantial change

➢ Change is in the delivery

  ✓ Traditional lectures now become digitized

  ✓ Scan and post lessons online

  ✓ Record and post lectures for students who missed class

Substitution Illustrations

Software:

➢ Khan Academy

➢ Raz Kids

➢ Bookopolis

➢ Newsela

➢ iStation

➢ Nearpod

➢ Spark Video

➢ Flocabulary

Hardware:

➢ Laptop/Desktop

➢ iPad

➢ Elmo

➢ LadyBug

➢ Smart Board

➢ Interactive White Board

➢ Promethean Board

Level 2: Augmentation

➢ Level 1 of substitution must be achieved, and the teacher must feel comfortable before advancing to Level 2

➢ Content is unchanged

➢ Enhancing the digital lesson (created in level one) by integrating interactive digital augmentations and various elements

   ✓ Hyperlinks

   ✓ Multimedia

   ✓ Comments

Augmentation Illustrations

Software:

➢ Edmodo

➢ Seesaw

➢ Pictello

➢ ChatterPix Kids

➢ ChatterKid

➢ Flipgrid

➢ Mural

➢ VideoAnt

Hardware:

➢ Laptop/Desktop

➢ iPad

➢ Elmo

➢ LadyBug

➢ Smart Board

➢ Interactive White Board

➢ Promethean Board

Level 3: Modification

➢ Student-centered

➢ Teacher assumes the role of facilitator

➢ Student collaboration

➢ Learning is transformed

➢ Possibility of using an LMS (learning management system)

   ✓ Moodle
   ✓ Google Classroom
   ✓ Teams
   ✓ Schoology
   ✓ Canvas

Modification Illustrations

Software:

➢ Piazza

➢ Google Drive

➢ Google Docs

➢ Flipgrid

➢ D2L

➢ Blackboard

➢ Teams

➢ Moodle

Hardware:

➢ Laptop/Desktop

➢ iPad

➢ Elmo

➢ LadyBug

➢ Smart Board

➢ Interactive White Board

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Level 4: Redefinition

➤ Think outside the box

➤ Education beyond the classroom
- Written story …….. Picture book or movie
- Classroom audience taken beyond the walls of the school ……. Worldwide platform
- Subject mater experts (SME) as virtual guides
- Virtual field trips
- Students can investigate local issues

➤ Communication and collaboration take a whole new meaning

➤ Tasks transformed, previously inconceivable

Redefinition Illustrations

Software:

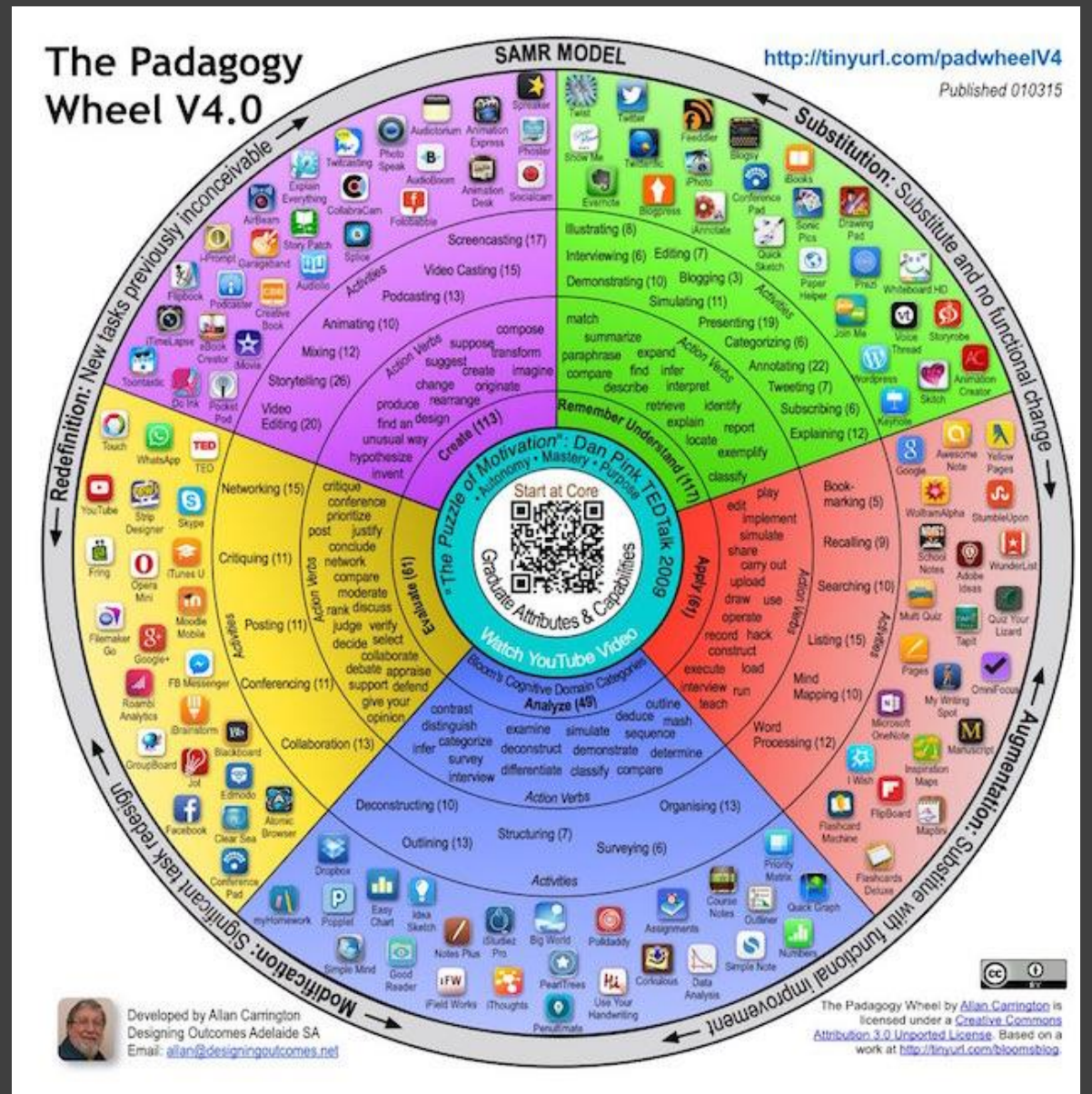- ➤ Video Editing
- ➤ Creative Book
- ➤ iMovie
- ➤ PocketPod
- ➤ eBook Creator
- ➤ Story Patch
- ➤ Explain Everything

Hardware:

- ➤ Laptop/Desktop
- ➤ iPad
- ➤ Elmo
- ➤ LadyBug
- ➤ Smart Board
- ➤ Interactive White Board
- ➤ Promethean Board

The Padagogy Wheel

Carrington combined **SAMR** Model with Blooms Taxonomy for teachers to utilize

Thank you!

Anila Das

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References

Puentedura, R. (2014). *SAMR and Bloom's Taxonomy: Assembling the Puzzle*. https://www.commonsense.org/education/articles/samr-and-blooms-taxonomy-assembling-the-puzzle

Puentedura, R. R. (n.d.). *Ruben R. Puentedura*. Retrieved February 10, 2021, from http://www.hippasus.com/team/rrpuentedura.html

Carrington, A. (2016). *The Padagogy Wheel English V5*. https://designingoutcomes.com/english-speaking-world-v5-0/