

generating narrative events from simulation

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Tale-Spin

- Created by James Meehan 1976 (artificial intelligence researcher interested in cognitive modeling)
- "The purpose of the simulator is to model rational behavior; the people are supposed to act like real people." (quoted in Wardrip-Fruin 120)
- "The world of Tale-Spin changes based on events and inferences from events" (Wardrip-Fruin 125)
- Characters have goals; the system figures out how to achieve those goals (by breaking down into sub-goals)

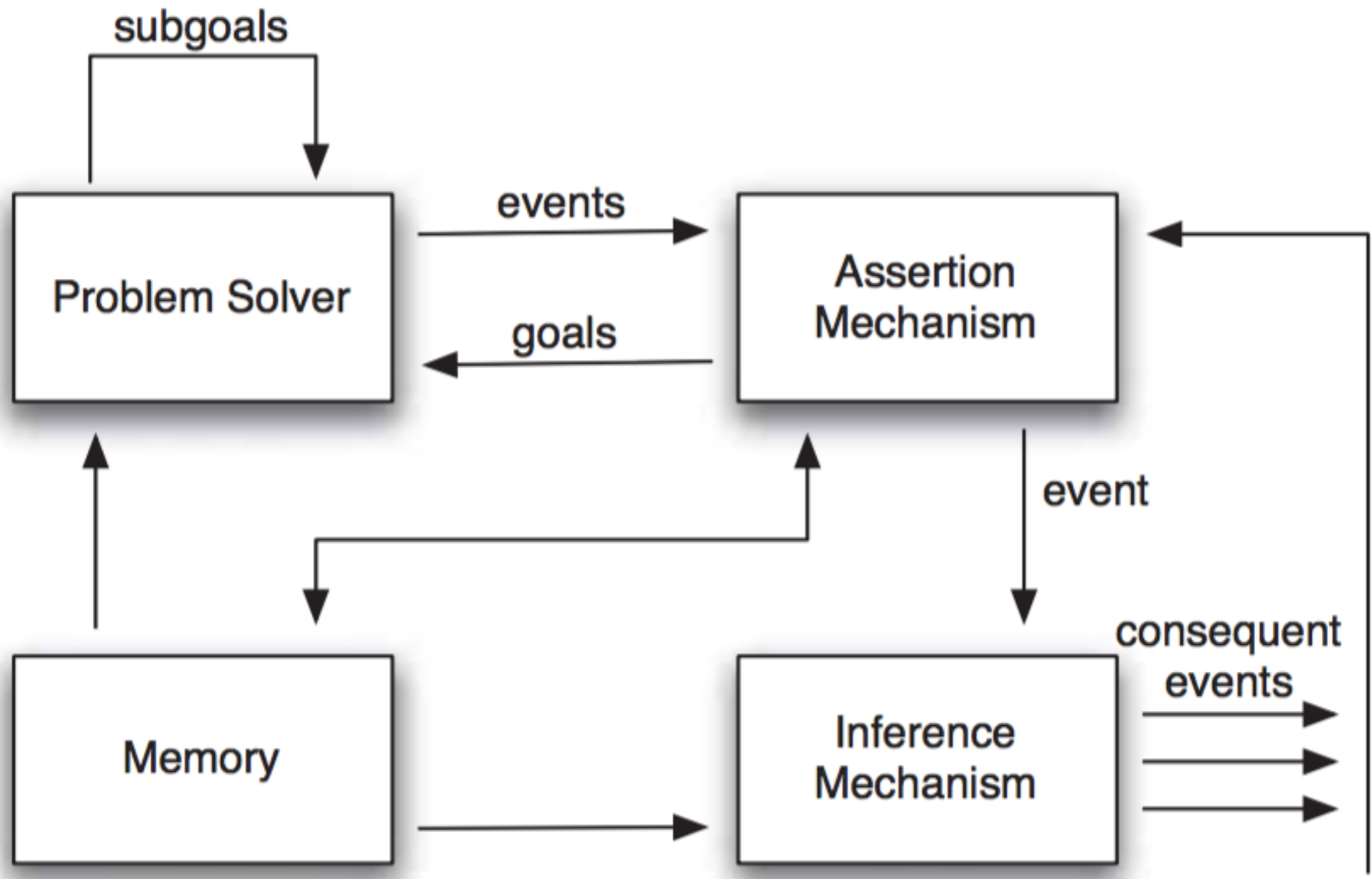


Figure 5.1. Control structure of *Tale-Spin's* simulator, after Meehan's figure 1.

(Wardrip-Fruin 128)

example narratives

Joe Bear was hungry. He asked Irving Bird where some honey was. Irving refused to tell him, so Joe offered to bring him a worm if he'd tell him where some honey was. Irving agreed. But Joe didn't know where any worms were, so he asked Irving, who refused to say. So Joe offered to bring him a worm if he'd tell him where a worm was. Irving agreed. But Joe didn't know where any worms were, so he asked Irving, who refused to say. So Joe offered to bring him a worm if he'd tell him where a worm was. (Meehan 1976, 129–130)

Henry Ant was thirsty. He walked over to the river bank where his good friend Bill Bird was sitting. Henry slipped and fell in the river. He was unable to call for help. He drowned. (1976, 128)

Henry Ant was thirsty. He walked over to the river bank where his good friend Bill Bird was sitting. Henry slipped and fell in the river. Gravity drowned. (129)

MÉXICA

- Rafael Pérez y Pérez (1999 and later)
- Actions between characters modify emotional links and increase/decrease narrative "tension"
- Uses an existing corpus of stories to suggest actions in particular circumstances

MÉXICA story action

Story-Action

A saved the life of B

List of preconditions:

The life of B must be at risk [tension].

List of post conditions:

The life of B is not anymore at risk [deactivation of a tension].

B develops an emotional link of type 1 and intensity +3 towards A.

Lb develops an emotional link of type 1 and intensity % towards A.

Alternative Texts

A desperately ran to forest to get some magic plants and saved the
life of B

Engagement

An initial action is provided by the user.

The action is executed and a new context (cluster of emotional links and tensions) is generated.

The context is employed as cue to probe memory.

If no atom is matched an impasse is declared

A set of operators or story-actions are retrieved from memory: those that do not satisfy the guidelines are eliminated.

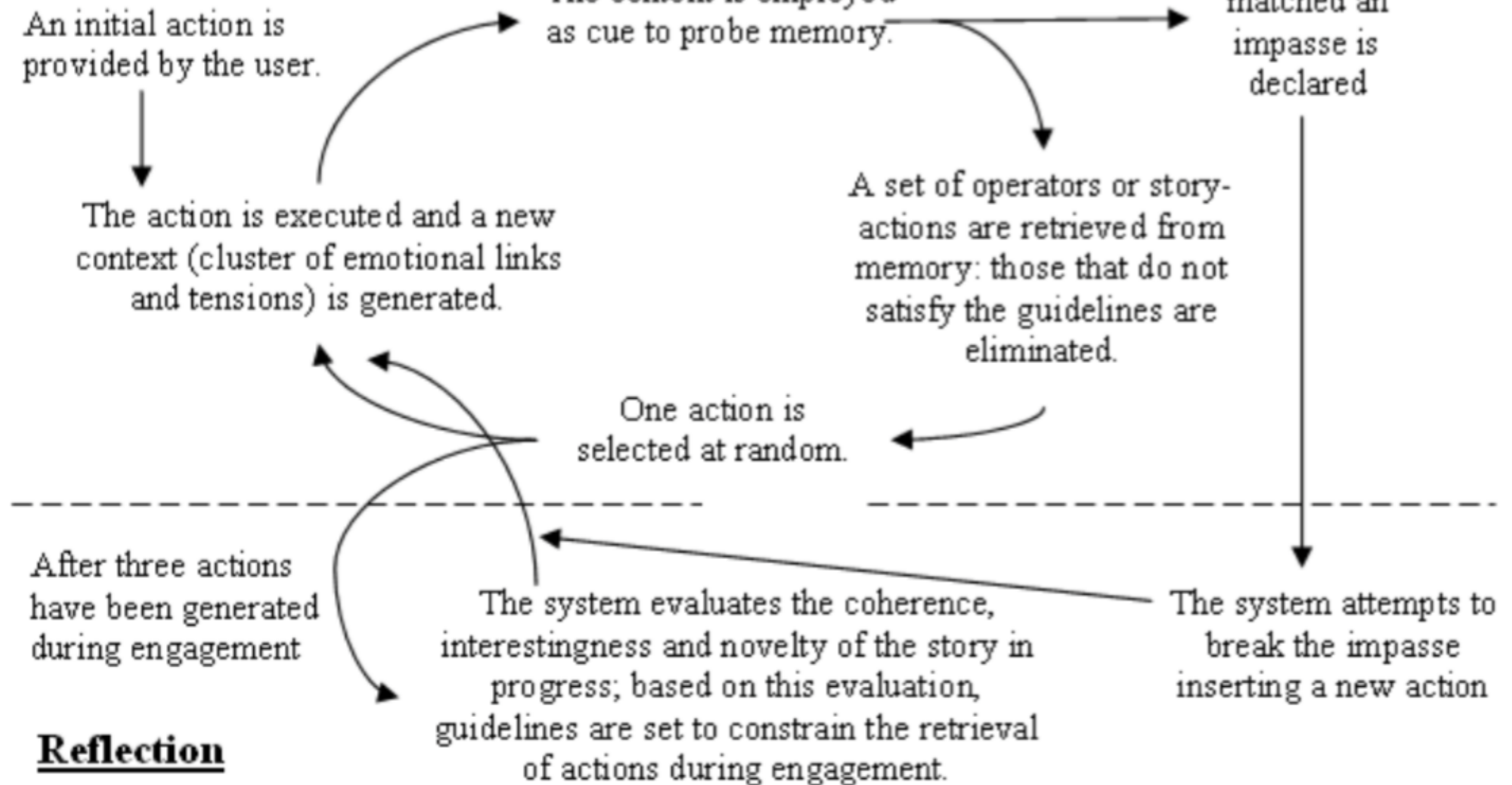
One action is selected at random.

After three actions have been generated during engagement

The system evaluates the coherence, interestingness and novelty of the story in progress; based on this evaluation, guidelines are set to constrain the retrieval of actions during engagement.

The system attempts to break the impasse inserting a new action

Reflection



Pérez y Pérez, R. (2007). Employing Emotions to Drive Plot Generation in a Computer-Based Storyteller. *Cognitive Systems Research*. Vol. 8, number 2, pp. 89-109.

(Pérez y Pérez slides)

MÉXICA example

TLATOANI ACTOR

PRIEST KIDNAPPED TLATOANI

TLATOANI BECAME_FREE

TLATOANI AFFRONTED PRIEST

PRIEST ATTACKED TLATOANI

TLATOANI FOUGHT PRIEST

PRIEST WOUNDED TLATOANI

PRIEST RAN_AWAY

PRINCE ACTOR

PRINCE WENT_FOREST

PRINCE REALISED PRIEST WOUNDED TLATOANI

TLATOANI WAS_FOND_OF PRINCE

PRINCE ATTEMPTED_TO_TAKE_ADVANTAGE_OF TLATOANI TLATOANI

AFFRONTED PRINCE

PRINCE DID_NOT_CURE TLATOANI

PRINCE WENT_TENOCHTITLAN_CITY

TLATOANI DIED_BY_INJURIES

(Pérez y Pérez slides)

MÉXICA example

The Kidnapped Tlatoani

The tlatoani was an inhabitant of the Great Tenochtitlan. The priest kidnapped the tlatoani and went to the Chapultepec Forest. With a hidden knife the tlatoani was able to cut all the ropes and escape. The tlatoani was really angry for what had happened and affronted the priest. The priest thoroughly observed the tlatoani. Then, took a dagger and attacked the tlatoani. Suddenly, the tlatoani and the priest were involved in a violent fight. In a fast movement, the priest wounded the tlatoani. An intense haemorrhage arouse which weakened the tlatoani. The priest felt panic and ran away.

(Pérez y Pérez slides)

references

- Wardrip-Fruin, Noah. “The Tale-Spin Effect.” Expressive Processing: Digital Fictions, Computer Games, and Software Studies, MITP, 2009, <https://ieeexplore-ieee-org.proxy.library.nyu.edu/xpl/articleDetails.jsp?arnumber=6274495>.
- Rafael Pérez y Pérez MÉXICA slides: http://www.rafaelperezyperez.com/w/wp-content/uploads/2018/01/How_MEXICA_works_in5Chaps.pdf and videos linked from here: <http://www.rafaelperezyperez.com/profile/research/>