Well-founded model:

quite complex "reasoning"

still polynomial!

→ move towards stable models

- total stable models (do not always exist)
- a unique minimal partial stable model

≡ (partial) well-founded model

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Win-move example

different

| | a | b | c | d | e | f | g | h | i | j | k | l | m | n |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | + | + | + | + | − | − | − | + | + | − | − | − | − | − |
| 2) | + | + | + | + | − | − | + | − | + | − | − | − | + | − |
| 3) partial stable model = WFM | + | + | + | + | − | − | o | o | + | − | − | − | o | − |

indeterminate "drawn"

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AFP for slide 625

$p(a) \text{ :- not } q(a).$
$q(a) \text{ :- not } p(a).$

$$I_0 = \emptyset$$

$$P_{I_0} = \{ p(a) \text{ :- true}, \; q(a) \text{ :- true} \}$$

$$I_1 = T^{\omega}_{P_{I_0}}(\emptyset) = \{ p(a), q(a) \}$$

$$P_{I_1} = \{\}$$

$$I_2 = T^{\omega}_{P_{I_1}}(\emptyset) = \{\} = \emptyset = I_0$$

$\Rightarrow$ AFP reached $\rightarrow$ 3valued Model $= (\overset{T}{\emptyset}, \overset{F}{\emptyset}) =: W$

means $Val_W(p(a)) = u$
$Val_W(q(a)) = u$

in this case ~~here~~ we have 2 total stable models,
$(\{p(a)\}, \{q(a)\})$
$(\{q(a)\}, \{p(a)\})$

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