

# EECS 510 Final Project: Zelda Character PDAs

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## Dialogue vocabularies

Link = {idle,hi,yes,no,tell,fight,win,retreat,eat,backstory,bye}

Zelda = {idle,hi,Exp,Quest,Feed,bye}

Ganon = {idle,lie,win,lose,fight}

Impa = {idle,hi,bye,Exp,quest}

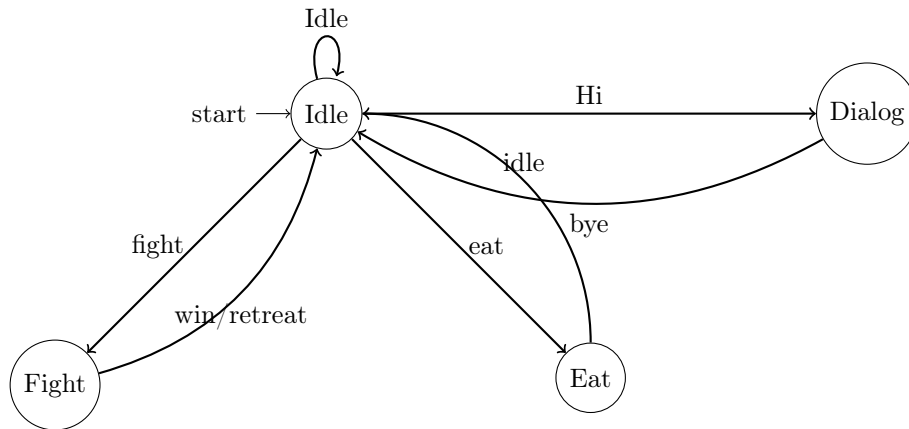
Bok = {idle,fight,lose,bloodmoon,retreat}

## Stack item legend

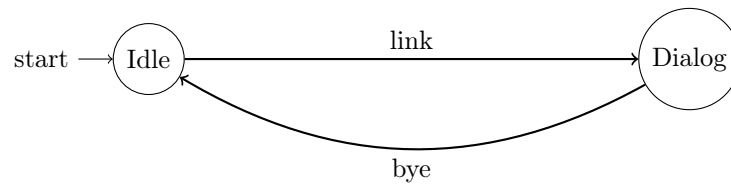
*E*   *Exposition*  
*R*   *Response*  
*Q*   *Quest*  
*B*   *Bye*  
*F*   *Feed*  
*S*   *Backstory*

## Character Automata Designs

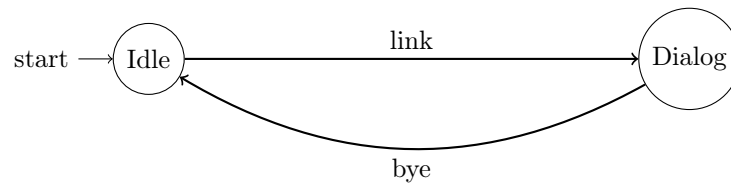
### Link's Behaviour Automaton



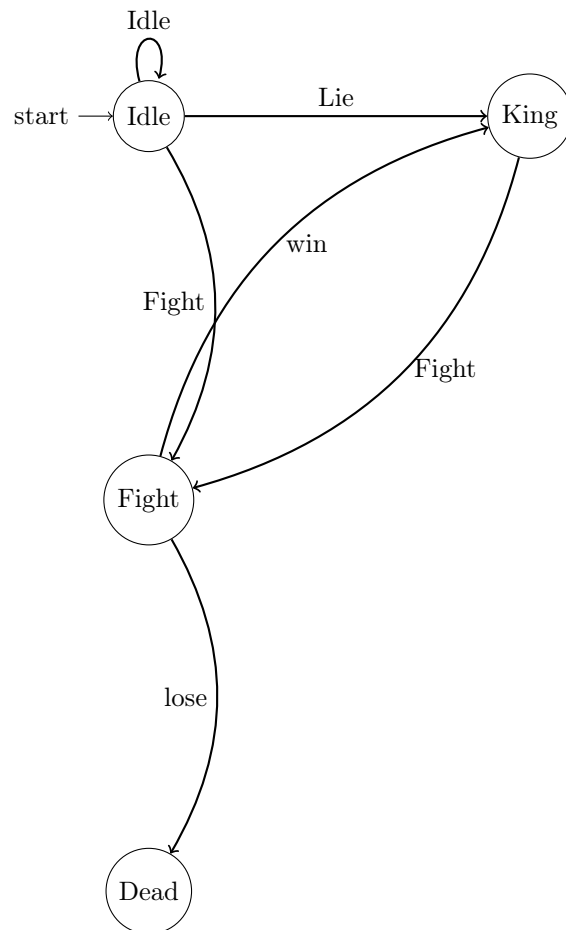
### Impa's Simple Dialog Automaton



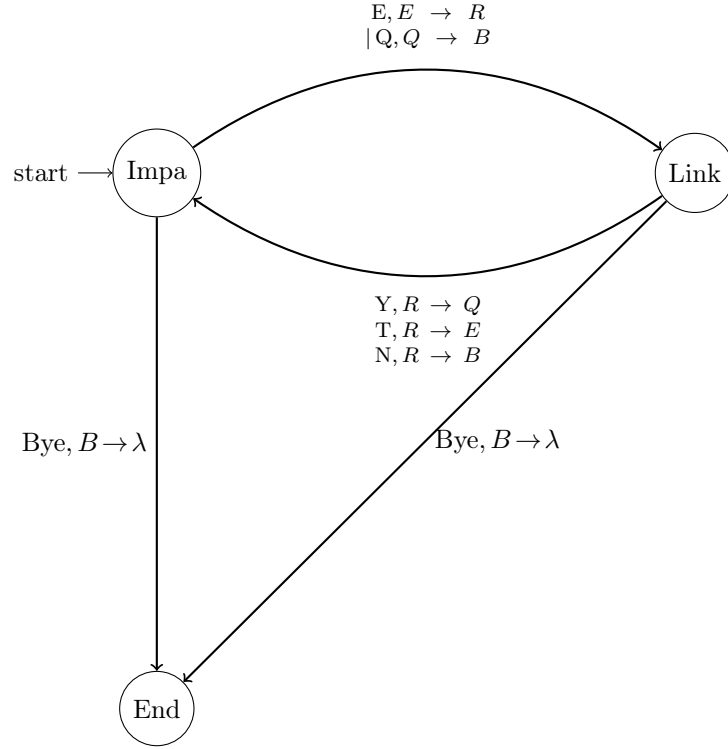
### Zelda's Simple Dialog Automaton



## Ganon's Battle Automaton



### Impa's PDA Dialog (stack actions shown)



### Impa – language and grammar

$$L = \{\Sigma^n e (te)^*\} (yg \mid n) b \$\}$$

$$E \rightarrow eR$$

$$R \rightarrow yY \mid nN \mid tT$$

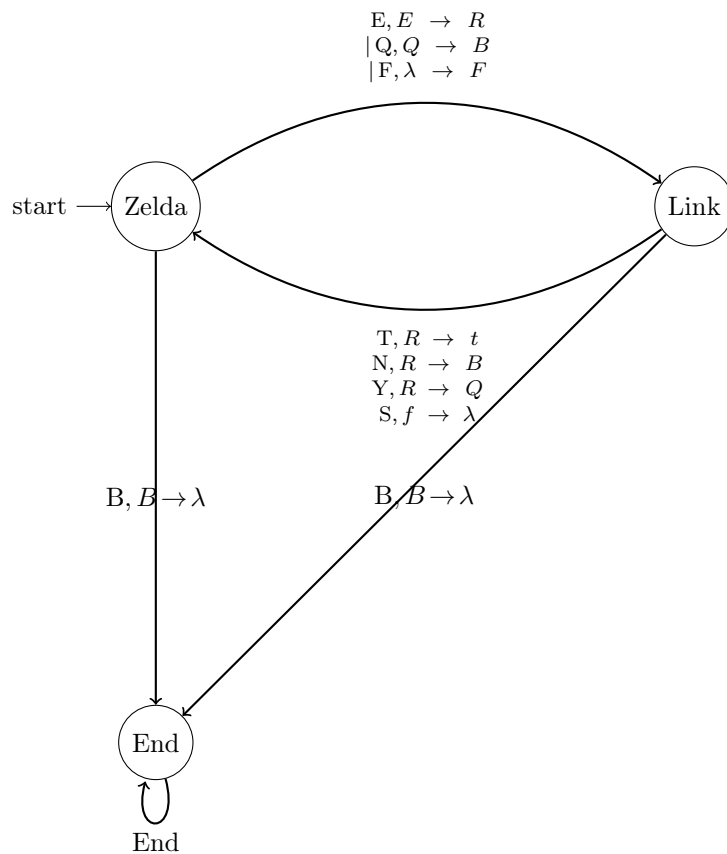
$$T \rightarrow eB$$

$$Y \rightarrow qB$$

$$N \rightarrow nB$$

$$B \rightarrow b$$

### Zelda's PDA Dialog (stack actions shown)



### Zelda – language and grammar

$$L = \{ e(fs)^* \mid te(fs)^* \}^* (yg \mid n) b\$ \}$$

$$E \rightarrow eR \mid fF$$

$$R \rightarrow yY \mid nN \mid tT$$

$$F \rightarrow sE$$

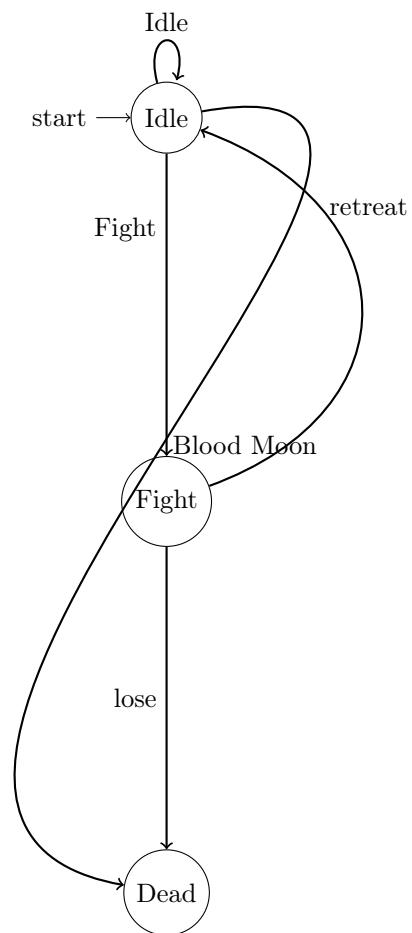
$$T \rightarrow eB$$

$Y \rightarrow qB$

$N \rightarrow nB$

$B \rightarrow b$

### Bokoblin State Machine



### Zelda