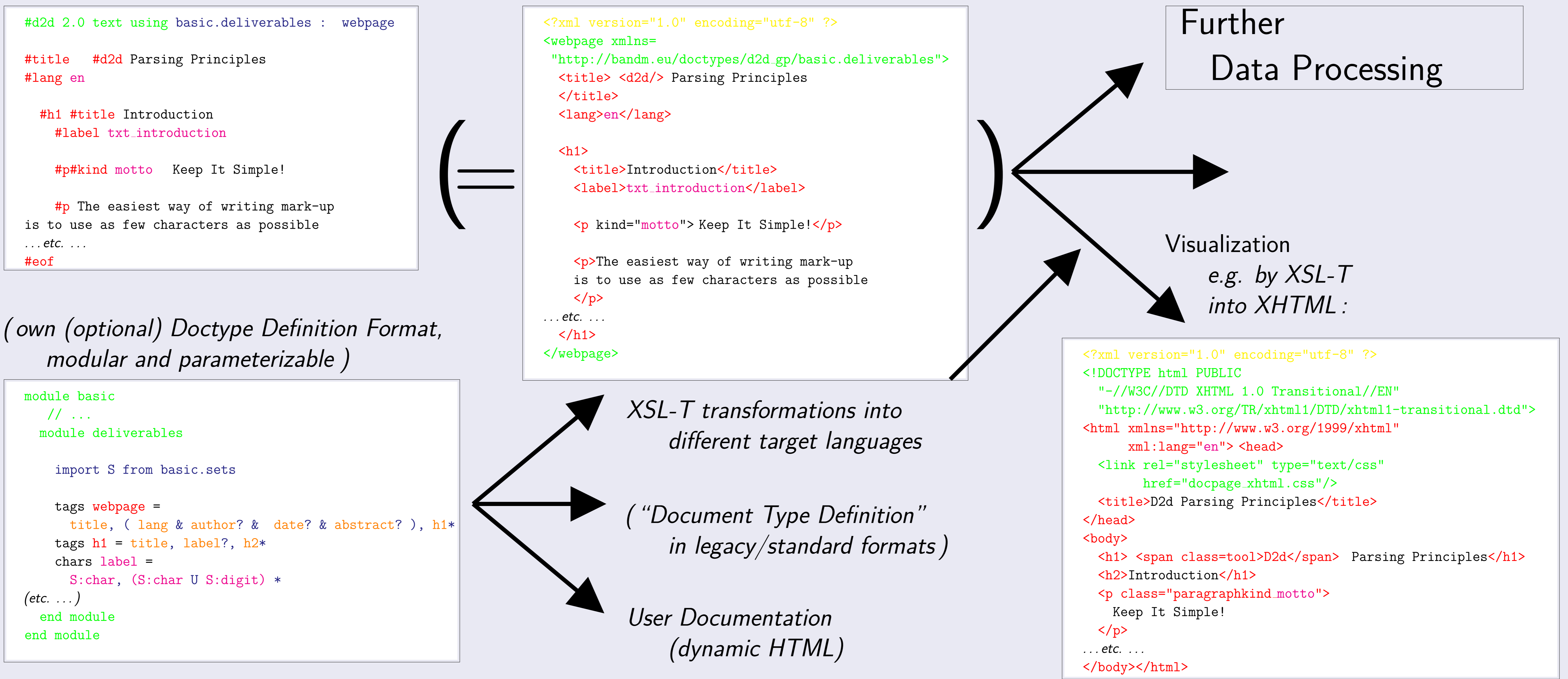


d2d Principles

- **d2d** = DirectDocumentDenotation
- Easy to type, easy to read
- Infer (almost all) close tags
- Only **one(1)** reserved command character, (eg. #)
- Tag-based and **character-based** parsers
- XML for Humans! 😊
- complete, concise, compositional
- adaptive and modular definition language (opt.)
- addressing domain experts
- integrated documentation and XSL-T coding

d2d Document Construction and Processing Pipeline



Erroneous Input

- α missing contents
- β unknown tag
- $\beta \Rightarrow \alpha$ mis-spelled tag

```
#d2d 2.0 text using basic.deliverables : webpage
#title Parsing Principles
#h1 #titel Introduction
#p In the last years ... (etc.)
```

Robust Parsing Process

insert d2d meta elements for error indication

```
<webpage>
<title> Parsing Principles </title>
<d2d:parseError kind="open" tag="titel"
  skipped="Introduction"
  expected="title,(label)?"
</d2d:parseError>
<p>In the last years... (etc.)
```

Error Reporting

e.g. XHTML

Parsing Principles

#titel Introduction title, (label)?
In the last years ... etc. ...

Further Data Processing

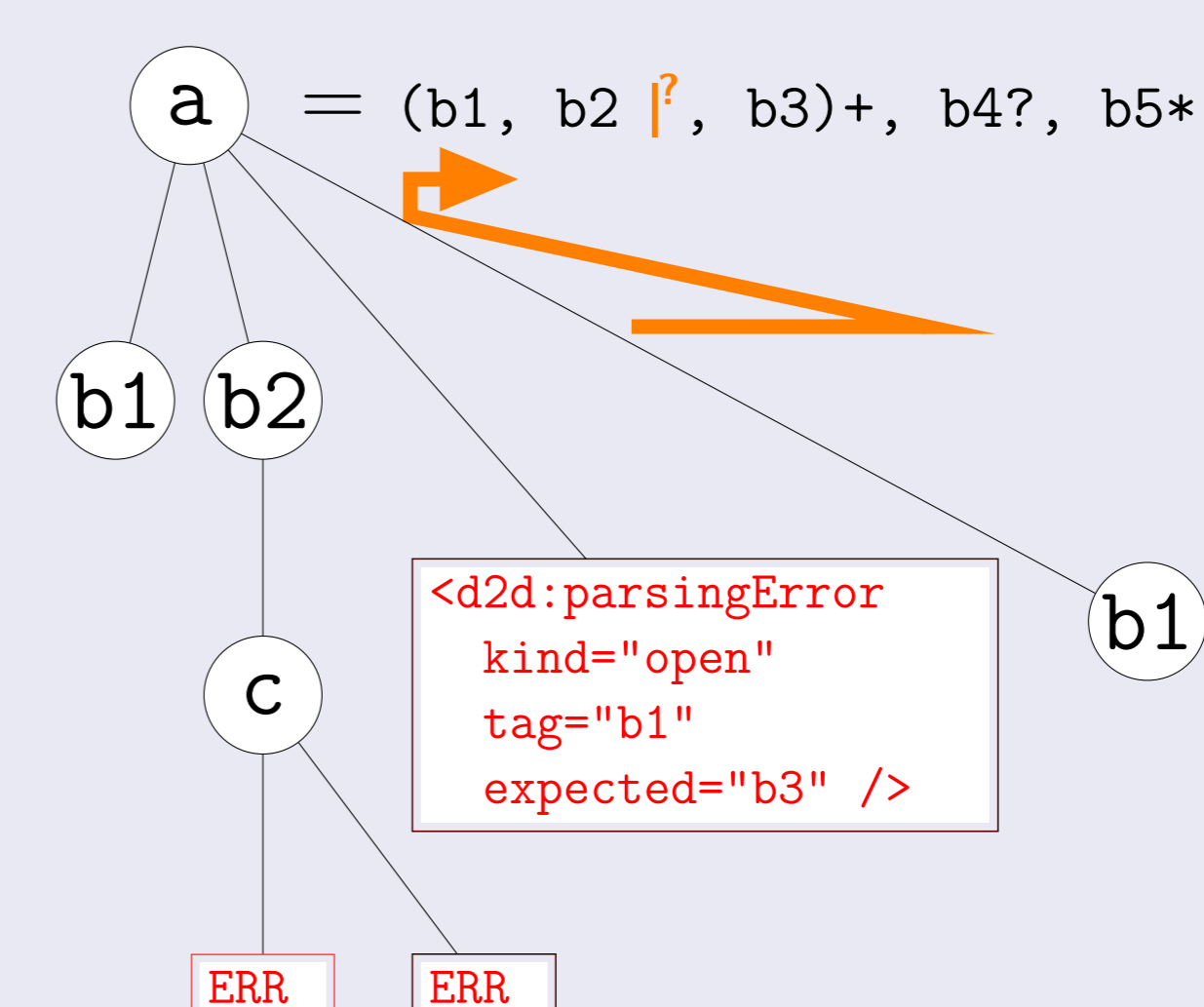
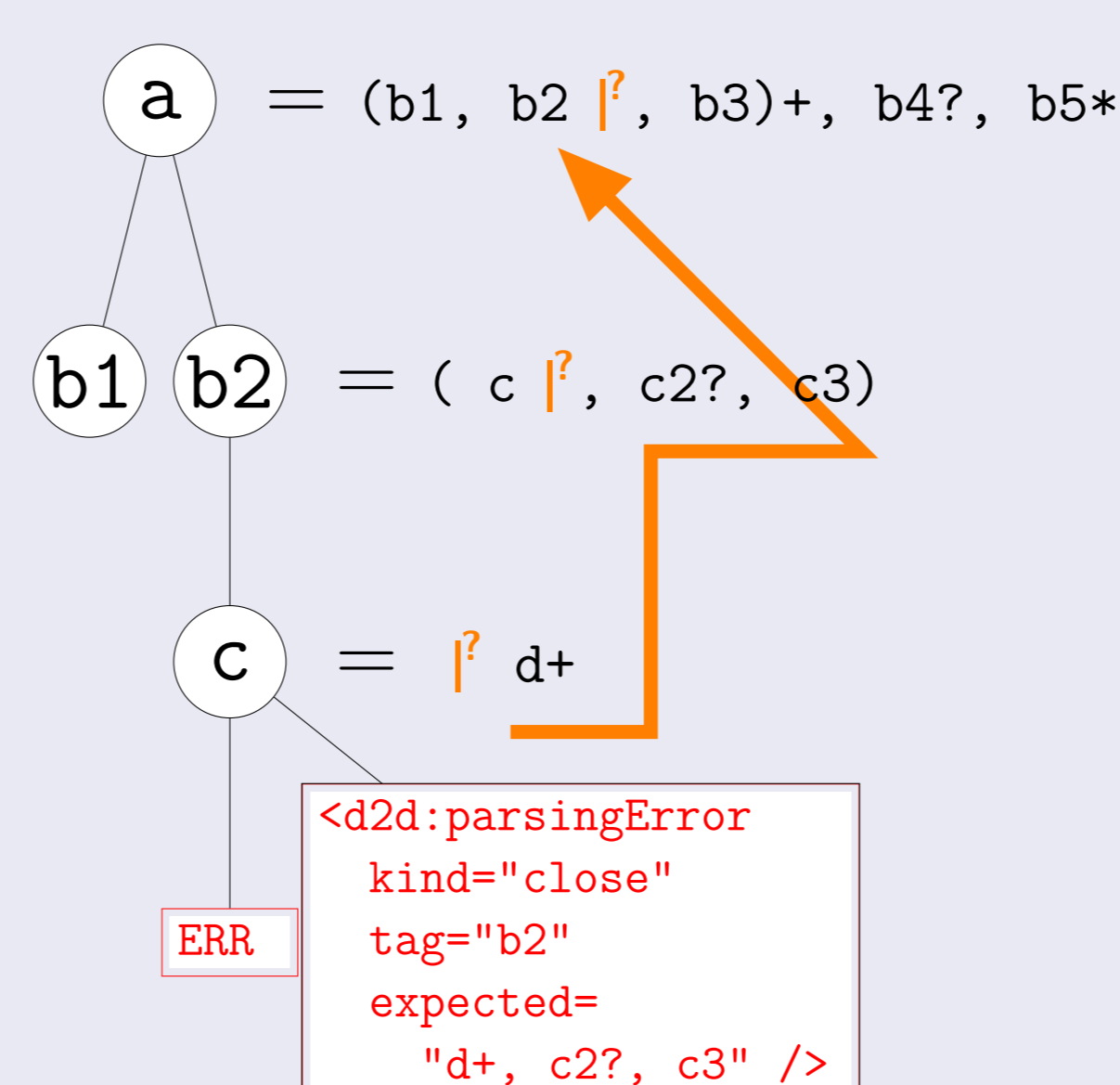
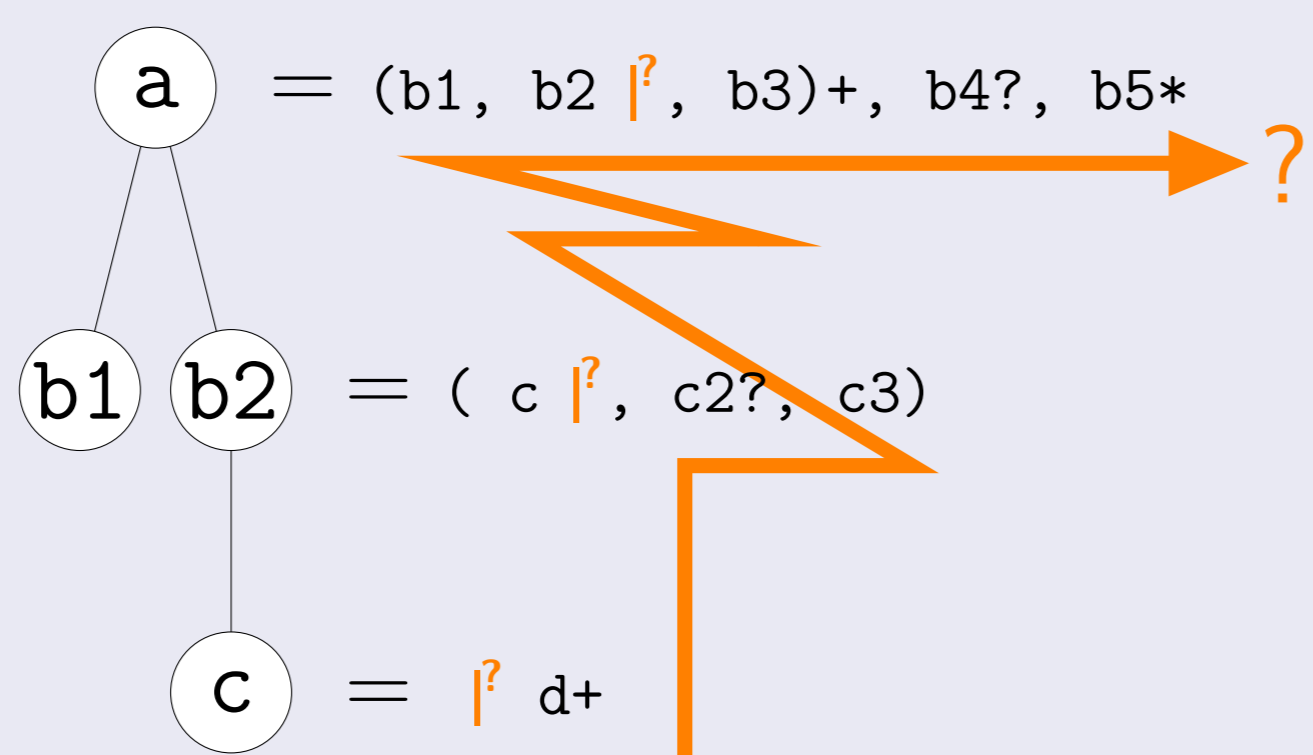
d2d Robust Parsing Algorithm

1 — Parsing Situation: Look for open tag #x1

2 — Look for close tag #/b2
⇒ Report missing contents

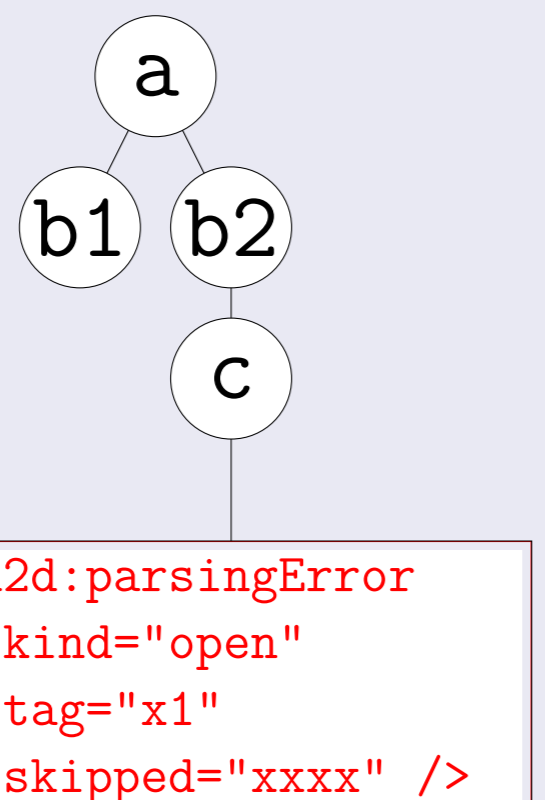
3 — Look for open tag #b1
⇒ Report missing contents

```
#a aaaaa
#b1 bbbb
#b2
#c
#x1 xxxx
```



Tag not found in all open content models:
⇒ skip input and emit error meta element

```
#a aaaaa
#b1 bbbb
#b2
#c
#x1 xxx|x|?
#/b2
#b1
```



Summary

- report and ignore superfluous tags
- ... and missing contents
- *future extension*: infer missing open-tags

Further Info

- d2d is part of bandm meta-tools.
- Their users' doc is an application of d2d.
- See <http://bandm.eu/metatools>