



What the Digerati Know

Other people can teach you computer applications or you can figure them out for yourself

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Learning New Tools

How do we learn to use new tools?

- Reading the owner's manual -- chain saw
- Be taught in their use -- car, bicycle
- Figure them out ourselves -- CD player

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Learning New Tools

How do we learn to use new tools?

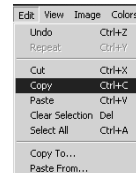
- Reading the owner's manual -- chain saw
- Be taught in their use -- car, bicycle
- Figure them out ourselves -- CD player
- Software designers wanting you to learn their tool ASAP, try for 'intuitive'
 - Consistent Interfaces -- build on experience
 - Suggestive icons -- bypass terminology
 - Metaphors -- exploit analogous reasoning

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Standard Functionality

Most applications have File and Edit



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Standard Functionality

Most applications have File and Edit



Impress your friends with your knowledge of Japanese



What does 'New' Mean?

'New' means create a 'blank instance'

To understand 'blank instance' know that information has properties as well as content which are all stored in a table with a place for everything

Document: Date created, date modified, creator, fonts, content, diagrams, pictures, tables, ...

A 'blank instance' is simply the structure without any of the content

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“Click Around”

Software designers use standard ideas to make applications intuitive

- To learn a new application, check it out by clicking around
 - * Take a minute to ...
 - Look under all menus to see operations
 - Follow the “...” for menu operations
 - Try to recognize what the icons mean

Clicking around is exploration

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“Blazing Away”

Learn an application fast by trying it

- Beginning with a new instance, assertively try menu items
 - * *Expect to fail* and make a mess
 - * Exit the application, and if you are asked “Save?” reply “No”
 - * Try repeatedly until becoming familiar

If you are trying to achieve some goal, keep your eyes on the prize

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To Learn A New Tool

Software systems build on a consistent interface, standard metaphors, etc.

- * Expect to teach yourself applications
- * Do so by familiarizing yourself with the features ... “Clicking Around”
- * Assertively try out the features, “Blaze Away,” watching what they do
 - Be efficient – stay focused, don’t type a lot when you expect to exit

If all else fails ...

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Differences & Similarities

Different vendors will produce similar software for the same task

- Superficially, the GUIs may look dissimilar
- Fundamentally, the task largely determines how the software must work ... they *must* be similar

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Differences & Similarities

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- Superficially, the GUIs may look dissimilar
- Fundamentally, the task largely determines how the software must work ... they *must* be similar
- Implications ...
 - Know one word processor, learn others fast
 - SW differences: mostly glitz, convenience
 - Don’t accept lousy ... switch to other SW

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Mac or PC???

Arguments about which is better, Mac or PC, create no light, only heat

- * They are more alike than different
- * Any Fluent person can use both

Assignment 2: To show that Windows OS and Mac OS are more similar than they are different, this assignment will be done using both OSs. Which will you prefer??? Most likely the one you’re most familiar with. But this assignment will show you can use either one to good affect.
Due: Before Class Wednesday 11 January 2006

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Placeholder Technique

Roses are ↵red↵↵Violets are ↵blue↵↵...

- Deleting the single ↵ deletes them all!

```
Roses are ↵
red↵
↵
Violets are ↵
blue↵
↵
Searching is ↵
fun↵
↵
But doesn't ↵
rhyme ↵
```



```
Roses are redViolets
are blueSearching is
funBut doesn't rhyme
```

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Thinking of the Input

Roses are ↵red↵↵Violets are ↵blue↵↵...

- Placeholder technique ...
 - Step 1. Substitute a placeholder for the longer string
 - $\text{↵↵} \leftarrow \#$
 - Yielding
 - Roses are ↵red# Violets are ↵blue# ...
 - Step 2. Next, delete the shorter string
 - $\text{↵} \leftarrow \epsilon$
 - Yielding
 - Roses are red# Violets are blue# ...

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Placeholder Replaced

Step 3. Finally, replace the placeholder with the original long string

$\# \leftarrow \text{↵↵}$
Yielding

Roses are red↵↵Violets are blue↵↵...
The intended result!

- Summarizing the placeholder

$\text{longstring} \leftarrow \text{placeholder}$

$\text{shortstring} \leftarrow \epsilon$

$\text{placeholder} \leftarrow \text{longstring}$

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Summarizing

Humans must learn to use tools

- Software designers want you to learn easily
- SW uses consistent interface, metaphors, ...
- * Teach yourself applications by "Clicking Around," and "Blaze Away"
- * SW for a task must share core features
- * Learn app.s independently of vendor

Placeholder technique is effective for fixing text

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About This Class

Fluency with Information Technology
-- FIT for short -- is the state-of-the-art
IT class for non-techies

- FIT is better than computer literacy
- FITness concept from NSF/NRC study
- FITness teaches how to use IT today and how to learn IT throughout life



UW was first in the US with a FIT class

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