




P-IDM Design-part 1

General concepts



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+ Page design in IDM: Designer's issues

Some designer's issues addressed during the presentation design phase:

- What the interface of the “dialogue” system will be, at conceptual level?
 - Where (in which pages) can the user “ask” the application for information?
 - Where (in which pages) will the required content be displayed?
 - What should be placed in the pages?
- Where does the dialogue start from?
- Where to place opportunities for navigation “jumps”?
-

+ IDM Page design: Goal

Starting from L-IDM specs, P-design goal is to define at abstract (conceptual) level:

- The complete “navigation architecture” (pages & links)
- The overall “map” of the application
- The information and navigation structure of each page

- Warning! Graphics and look&feel is NOT part of presentation design as intended by IDM

+ P-IDM primitives

- **PAGE**
 - Topic Page
 - Entry Page or Default Page
 - Transition Page
 - Introductory page
 - Home page
- **LINK**
 - Structural link
 - Transition (or semantic) link
 - Group Link
 - Go on Link
 - Landmark
- **NAVIGATION PATTERN**
- **ORIENTATION INFO**

Example: Topic Page

<http://www.nga.gov/collection/gallery/gg4/gg4-12146.html>

Landmarks

Orientation info

Content

From Content Dialogue Act

Transition Links

Structural Links

Group Links

"Go on" link

What's New
Newsletters
Calendar
Recent Acquisitions
Videos & Podcasts
About the Gallery
Canaletto
Gauguin

The Collection
Exhibitions
Plan a Visit
Programs & Events
Online Tours
Education
Resources
Gallery Shop
Support the Gallery
NGAkids

Search the Site

Domenico Veneziano (artist)
Italian, c. 1410 - 1461
Saint John in the Desert, c. 1445/1450
tempera on panel
overall: 28.4 x 31.8 cm (11 3/16 x 12 1/2 in.) framed: 40.6 x 44.1 x 5.1 cm (16 x 17 3/8 x 2 in.)
Samuel H. Kress Collection
1943.4.48
[On View](#)

From the Tour: The Early Renaissance in Florence
Object 3 of 8

This panel and *Saint Francis Receiving the Stigmata* are from one of Domenico's major works, a large altarpiece in the church of Santa Lucia de' Magnoli in Florence. They formed part of its *predella*, the lower tier of small scenes that typically illustrated events in the lives of the saints who appeared in the larger central altar panel above.

Domenico's John the Baptist is unusual. Earlier artists had shown him as an older, bearded man with matted hair and clad in animal skins. Here, though, we see a youthful John at the very moment he is casting off the fine clothes of worldly life for a spiritual existence. His graceful figure, nude and modeled like an ancient statue, is one of the first embodiments of the Renaissance preoccupation with the art of ancient Greece and Rome. The figure is convincingly three-dimensional because the tones Domenico used for his flesh are graduated, one color blending continuously into the next. The landscape around the saint, however, belongs to an earlier tradition. Its sharp, stylized forms increase our appreciation for the desolation John is about to embrace in the stony wilderness; they dramatize his decision and give his action greater significance.

full screen image
artist information
bibliography
exhibition history
location
provenance

« back to gallery » continue tour

Example: Introductory Page

<http://www.nga.gov/collection/gallery/gg4/gg4-main1.html>

Landmarks

Group Links

Content

From Introductory Dialogue Act

What's New
Newsletters
Calendar
Recent Acquisitions
Videos & Podcasts
About the Gallery
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The Collection
Exhibitions
Plan a Visit
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Online Tours
Education
Resources
Gallery Shop
Support the Gallery
NGAkids

Search the Site

Tour: The Early Renaissance in Florence
[Overview](#) | [Start Tour](#)

1 2 3

4 5 6

« next
« back to Italian Painting of the 15th century

Overview

In fifteenth-century Florence, many people believed themselves to be living in a new age. The term "Renaissance," already coined by the sixteenth century, describes the "rebirth" from the dark ages of intellectual decline that followed the brilliance of ancient civilization. In Italy, especially, the Renaissance was spurred by a revival of Greek and Roman learning. Works by classical authors, lost to the West for centuries, were rediscovered, and with them a new, humanistic outlook that placed man and human achievement at the center of all things. [\(continue\)](#)

Captions

1.
1 Masolino da Panicale, *The Annunciation*, c. 1423/1424
2 Florentine 15th Century, *Matteo Olivieri (?)*, 1430s
3 Domenico Veneziano, *Saint John in the Desert*, c. 1445/1450

+ Example: Topic Page <http://www.nga.gov/cgi-bin/tbio?tperson=1230&type=a>

THE COLLECTION
NATIONAL GALLERY OF ART

Domenico Veneziano
Italian, c. 1410 - 1461

The earliest certain document concerning Domenico is a letter written by the painter from Perugia on 1 April 1438, addressed to the twenty-two-year-old Piero de' Medici. Its contents, in which the artist, at the time busy painting frescoes in the Umbrian city, offers his services to the son of Cosimo the Elder, indicate clearly that he was on familiar terms not only with that illustrious family (whom he could have met during the Medici's exile in Venice between 1433 and 1434), but also with the Florentine art world. This circumstance, as well as the confidence in the use of Brunelleschian perspective and the reflections of Donatello's art evident in Domenico's earliest known works, suggest that he probably arrived in Florence a few years before 1438 and completed his artistic training there. There seems to be no real justification in trying to find elements derived from Gentile da Fabriano in his painting, as has been supposed in the past. Instead of following this great master of late Gothic painting to Florence (where Gentile was active between 1420 and 1425), Domenico could instead have come to Tuscany with Filippo Lippi when the latter returned to Florence around 1435 after a stay in Venice. Domenico's early training in Venice or perhaps in Padua, close to artists like Giovanni d'Alema, left its mark in his attentive observations from nature, readily seen in his earliest works. Of these the first seems to be according to Vasari's account[1] but also on the basis of its style the decoration of the Cambric tabernacle in Florence, which bears his signature (the frescoes, now detached, are in the National Gallery in London). Shortly after this work, characterized by the bold but not totally successful foreshortening of the throne, is the tondo of the *Adoration of the Magi* (Gemäldegalerie, Berlin), probably executed for the Medici after the artist's return to Florence, in which solid handling of the perspective is enlivened by minute description of nature in the landscape, recalling probable Flemish prototypes and perhaps also memories of the artist's early training in the Veneto. From the same period is a vigorous portrait of a young man in the museum in Chambery (no. 364), usually attributed to Paolo Uccello.

In a subsequent phase the painter reveals his interest not only in the artistic language of Filippo Lippi but also in the sculpture of Donatello and Luca della Robbia. The sculptural qualities of the

.....

[Works by Domenico Veneziano](#)

Landmarks (left sidebar): What's New, Newsletters, Calendar, Recent Acquisitions, Videos & Podcasts, About the Gallery, Canaletto, Gauguin, The Collection, Exhibitions, Plan a Visit, Programs & Events, Online Tours, Education, Resources, Gallery Shop, Support the Gallery, NGAKids, Search the Site.

Content from Content Dialogue Act (right sidebar): Content from Content Dialogue Act.

Transition Link (bottom): [Works by Domenico Veneziano](#).

+ Example: Transition Page <http://www.nga.gov/cgi-bin/tsearch?artistid=1230>

THE COLLECTION
NATIONAL GALLERY OF ART

Artist

Domenico Veneziano
Also known as Domenico di Bartolo da Venezia
Italian, c. 1410 - 1461

[Biography](#)
[Bibliography](#)

Painting

- [Madonna and Child](#), c. 1445/1450, 1939.1.221 (image available)
- [Saint Francis Receiving the Stigmata](#), c. 1445/1450, 1939.1.140 (image available)
- [Saint John in the Desert](#), c. 1445/1450, 1943.4.48 (image available)

Drawing

- [A Young Man Sitting on a Stool Reading a Book \(recto\): The Fall of Man \(a fragment of the lower part\) \(verso\)](#), c. 1450, 2009.91.1 (image available)

Landmarks (left sidebar): What's New, Newsletters, Calendar, Recent Acquisitions, Videos & Podcasts, About the Gallery, Canaletto, Gauguin, The Collection, Exhibitions, Plan a Visit, Programs & Events, Online Tours, Education, Resources, Gallery Shop, Support the Gallery, NGAKids, Search the Site.

Orientation info (right sidebar): Orientation info.

Transition Links (bottom): [A Young Man Sitting on a Stool Reading a Book \(recto\): The Fall of Man \(a fragment of the lower part\) \(verso\)](#).

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+ P-IDM primitives:PAGE

PAGE:

- atomic **presentation unit**
- visual container of **CONTENT** (text, images, animation, video, audio) AND **LINKS**

+ How are pages derived from L-IDM specifications?

CONTENT: MAPPING DIALOGUE ACTS INTO PAGE

“Default” mapping: 1-1 mapping from the set of Dialogue Acts to the set of pages

- 1 Content dialogue act → 1 Page
- 1 Transition act → 1 Page
- 1 Introductory Act → 1 Page

Examples: see previous slides; [See also...](#)

+ Observation



Using the default rules:

if N is the set of Dialogue Acts defined in the L-IDM schema, the Pages defined in the P-IDM schema are N+1 (the HOME page)

BUT

sometimes there are also other as pages (see next slides) e.g., **high** level groups, “section pages”, “operational pages” - not envisioned in L-IDM, which may become needed during P-IDM design and are added

+ More sophisticated content mapping



- N Content dialogue acts for the **same** topic
→ 1 Page

- [See Example](#)

- Transition Act → NO separate Page: TA EMBEDDED in one or more Topic pages; in this case:

Content Dialogue Act + Transition act → 1 Page

- the page must correspond to a Topic connected with the transition act in L-IDM
 - [See Example](#)

+ More sophisticated content mapping

■ Multiple Introductory Acts → 1 Page

- Example 1: Introductory Act for a Father Group + N Introductory Act for the Son Groups → 1 Page

- [See example](#)

- Example 2: 1 “Introductory Act for an “Important” Group + Other “related” Introductory Acts → 1 Page

- [See example](#)

In some cases, multiple parametric groups are merged in a single page listing all parameters and are dynamically displayed when a user selects a parameter

- [See example](#)

+ More sophisticated content mappings

- One act=> multiple pages

- to avoid! plan organization in advance - in L-IDM - as much as possible!

- [See example](#)

+ Mappings can be dynamic...

The image shows two overlapping screenshots of a digital museum interface. The interface features a central image of a painting, a text description, and a sidebar with metadata. Annotations with arrows point to specific elements:

- INTRODUCTORY ACT**: A red box highlights the top navigation bar, with an arrow pointing to the text "Coming from group 'domestic interiors'" and another arrow pointing to "Coming from 'children'" (with a downward arrow).
- Content Dialogue act ("Painting Intro")**: A red box highlights the central image and its description, with an arrow pointing to the text.
- Warning! Usability...?**: A red box highlights the bottom navigation bar.

+ Categories of pages

■ Topic Pages:

- The place where users consume contents about a given single topic or topic of a given kind
- derived from at least one or more content dialogue acts

■ Transition Page

- The place where users understand what is related to what, and decide to go on
- Derived from a transition act

■ Introductory page

- The place where users understand what are a group is about, and what are its members, and decide to go on
- Derived from introductory act(s)

+ DEFAULT page (or Entry Point) of a Topic

- A “special” Topic Page
- **The** page about a topic where the user arrives when (s)he moves to that topic by effect of link traversing
- **The** default destination of any link to that topic

Observation:

- Usually, for each topic there is one default page only. In sophisticated designs, default pages may depend from the navigation context (e.g., the default page for T is X when the user arrives from N and is Y when (s)he arrives from M, or when the topic has been already visited before
- Dynamic entry pages are difficult to implement and may create usability problems

+ What is inside pages? CONTENT

- **“Static”** Content: from the corresponding content dialogue acts
- **“Dynamic”** Content: **Orientation Info**
 - The role is to clarify to the users the current position in the website “Where am I?” How did I get here?”
 - Depends on the navigation context (the pages traversed so far)
 - In simple cases “bread crumbs” work; in general cases they do not work
 - Orientation info require advanced implementation skills and must be carefully designed to avoid usability problems

+ What is inside pages? LINKS

TOPIC PAGE

Structural Link + Semantic Links + Group Links + Landmarks + Go-on Link

- **Structural Links:** to the pages of other acts of the same topic
- They keep the user within the same topic (same “cognitive space”)

+ What is inside pages? LINKS

TOPIC PAGE: Semantic Links

Semantic (Transition Links): move the user to a DIFFERENT topic (“cognitive jump”)

- For each outgoing “**1-1 relation**” (max cardinality = 1)
 - a **direct link** leading to the **default page** for the “target” topic
- For each outgoing “**1-N relation**” (max cardinality > 1)

Two possibilities:

 1. A link leading to a “**transition page**”
 2. A “**list of links**” leading to **all** the **default pages** of the “target” topic (see next slide)
 - NB: in the second case the transition act is embedded in the topic page - [See Example](#)

+ Transition Page
<http://www.nga.gov/cgi-bin/tsearch?artistid=1230>

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Artist
Domenico Veneziano
 Also known as Domenico di Bartolo da Venezia
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- *Saint Francis Receiving the Stigmata*, c. 1445/1450, 1939.1.140 ([image available](#))
- *Saint John in the Desert*, c. 1445/1450, 1943.4.46 ([image available](#))

Drawing

- *A Young Man Sitting on a Stool Reading a Book (recto); The Fall of Man (a fragment of the lower part) (verso)*, c. 1450, 2009.91.1 ([image available](#))

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+ What is inside pages? LINKS

Topic Page: Group Links

■ Group Links

- To support navigation across pages derived from the groups the topic belongs to
- **Static** (always available) or **dynamic** (i.e., depending on the navigation state):
 - Example : [case1](#); [case2](#)
- Dynamic Group Links should be carefully designed: risk of usability problems

+ LANDMARKS

Landmarks=links available in all pages

- General rule: all (or some of) the links available from the Home Page
- Small-Medium applications : landmarks are the same everywhere
- Some (very) large applications : few landmarks on every page and additional “section landmarks”, different for each section

+ “GO ON” link

- It allows the user to “continue” the **navigation**
- Typically, go-on links are group links
- Simple solutions
 - “go up” to the **current** index
 - “go to the next item” of the **current** tour
 -
- Go-on Links should be carefully designed: risk of usability problems

+ What is inside pages? LINKS

Transition Page: Transition Links + Landmarks (+ Go-on Links)

Remember:

- A Transition Page corresponds to a Transition act for a 1-N relevant relationship
- The Transition Act “connects” a “Source” Topic to a set “Destination” Topics

A Transition Page contains

- All transition links that lead to the default pages of the destination topics
- One transition link to “return to” the default page of the “source” topic

+ What is inside pages? LINKS

Introductory Page: Group Links + Landmarks (+ Go-on link)

GROUP LINKS:

- 1) “DOWN”: To the default pages of the group members:
 - To ALL group members
 - or/and to the **first** group member
- 2) “UP”: To the page of the Introductory Act of the Father group

In case of introductory pages for high level groups containing instances of parametric groups: down group links are the selection parameters (“parameter page”)



Design Issues and refocusing some concepts



Topic Page: Structure

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- **Title**: what the page is about (from a user point of view)
- as defined in logical design
- **Content** : as defined in logical design
- **Structural Links** : links to other dialogue acts of the same topic
- **Transition Links**: a link for each “outgoing” relation
- **Landmarks**: as defined from the Home Page or the section the page belongs to
- **Orientation Info** (*often dynamic*): where are we?
- **Group Links**: to move within the current group
- **“GO ON”** (*dynamic*): How can I continue what I am doing?

+ Transition Page: Structure

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Transition Page = a page with a list of links corresponding to a relation

- E.G. Teacher → Course (min=1, max=10)
 - **Title**: “courses taught by Franca Garzotto”
 - **List of Links**: a link to each target of the relation
 - e.g. (for each course taught by Garzotto) “name, subtitle, starting date “→
 - NOTE: the “order” of the courses should be decided by the designer and made clear to the user
 - **Landmarks**: as defined from the Home Page
 - **Orientation Info** (*often dynamic*): where am I?
 - **[“GO ON”** (*dynamic*): How can I continue what I am doing?]

+ Transition Page: Design Issues

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- Each link is associated to some pieces of content – to be decided during L-IDM or postponed to P-IDM
 - e.g. a list of Paintings Masterpieces
 - Painting: Name?, date?, style?, technique? Comment?
 - Thumbnail?

Design issues:

- Issue 1: **communicability** - which pieces of information better represent the links?
- Issue 2: **orienting the user** - are we dealing with a user who knows what is looking for or the user is just browsing around or do we want to attract the user toward specific items.....?
- Issue 3: **ordering** - what's the best order for the links (from a user point of view)?

+ “Missing” Transition Links

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- For optional relations (cardinality [0..1] or [0..N]) sometimes there is no link
- Three possibilities:
 - No link is shown (it can be confusing for the user)
 - A “non active” link is shown (it can be annoying for the user)
 - A “shaded” link (not active) is shown (it must convey the message that in this specific case the link is not there, but in other similar pages you may find it)

+ Introductory Pages: Structure

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- **Title:** e.g. “OUR BEST COURSES”
- **Introductory content** (OPTIONAL): something to explain what are we talking about, to attract the user attention, to promote going “in depth”...
- **List of items:**
 - Each item
 - Some descriptive info (e.g. to the identify/characterize the course)
 - A group link

NOTE: designer should be very conscious into choosing the proper descriptive info and properly ordering the items

+ Landmarks, Orientation Info, (“GO ON” link)



Introductory Page: Design Issues

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- “introductory” page: a way to start navigation to a group of topics
- The purpose of an Introductory Page is to present the members of the group of topics
 - 2 Possibilities:
 - Textual representation (Index): listing all the members in a given order
 - Graphic representation: e.g. an interactive map
 - A combination of both

[Example1](#)

[Example2](#)



Tools for Introductory Pages

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Optional tools can be used “associated” to an introductory page

- **User Controlled Ordering** : letting users to control the ordering of the list of items (suggested for long lists of items)
- **User Controlled Filtering**: letting users to search within the list of items and/or filter their visualization according to some selection criteria (suggested for very long lists of items)

■ [Example-1](#)

■ [Example-2](#)

+ “Nested” Introductory Pages

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Derived from Multiple Group of Topics

e.g. Paintings by Subject (portrait, religion, countryside, ..)

Typical structure

■ Parameter Introductory Page

- Title (e.g. “Paintings by subject”) + List of items = parameter values

- Portrait →(link)
- Religion →(link)
- ..

- + Landmarks, *Orientation Info*, (“GO ON”)

■ [Parametrized Introductory Page

- Title (e.g. “Portrait Paintings”) + List of items : corresponding to the parameter choice

- Portrait-1 →(link)
- Portrait-2 →(link)
-

- + Landmarks, *Orientation Info*, (“GO ON”)

+ “Other” Pages

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Pages not corresponding to L-IDM acts

- Home Page
- Area (Section) page
- Form (input) Page
- Search Page
- Service Page
-

All of them do not originate from IDM design

+ HOME PAGE

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- It is a Cover, an Index, an Introduction, a Brand communication, ...
 - (see slides “Information Architecture”)
- **Specific Content**
- **Links** (the basis for landmarks):
 - Links to Topic pages from single topics
 - Links to introductory pages

+ SPECIALIZED PAGES

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- Example: Pages for input (“Forms”), Search, Transaction,
- **Each category has different requirements and/or operational needs**
- **IDM does not consider all for them**

+ END P-IDM part 1

