"Food for thought"

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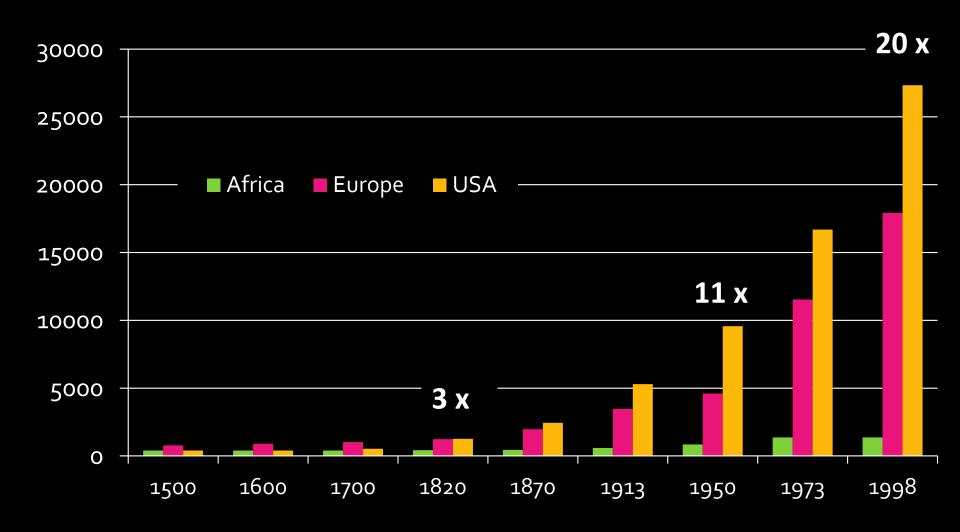
Conference hashtag: #sfaddis

Roadmap

Why is knowledge important for development?

What does this mean for K4D?

Income per head since 1500



Knowledge diffusion enables the poor to catch up.

We deal with difficult problems

Some problems are so complex that you have to be highly intelligent and well informed just to be undecided about them.

Laurence J. Peter

Wicked problems

- Difficult to define clearly
- Many interdependencies, multi-causal
- Unforeseen consequences
- Often not stable
- No clear solution
- Socially complex
- Not the responsibility of any single organization
- Involve changing behaviour



All successful complex systems are the result of evolution.

• Development is a "wicked problem"

• "Almost impossible" problems are solved by evolution not design

• Evolution requires variation and selection

- Evolution is about information (eg genes).
- Variation & selection means
 - Diversity
 - Engagement
 - Feedback
 - Learning

e.g. Report cards in Uganda

- Randomised trial in clinics
- NGO report cards & public meetings
- Impressive results
 - Waiting time decreased
 - Doctor and nurse absenteeism plummeted
 - Clinics got cleaner; fewer drugs stolen
 - 40-50% more children vaccinated
 - 33% fewer children died under the age of five
 - Saved 550 lives (in area of 55,000 households).

As change-makers we should not try to design a better world. We should make better feedback loops.

Knowledge drives development.

Diversity, engagement, feedback and learning improve institutions and so promote development.

What does this mean for K4D?





National Oceanic and Atmospheric Administration's

National Weather Service

News

Local forecast by "City, St"

City, St

Go

Site Map

XML RSS Feeds

Warnings

Current By State/County... UV Alerts

Observations

Radar Satellite Snow Cover Surface Weather... Observed Precip

Forecasts

Local
Graphical
Aviation
Marine
Hurricanes
Severe Weather
Fire Weather

Text Messages

By State By Message Type National

Forecast Models

Numerical Models Statistical Models... MOS Prod GFS-LAMP Prod Home > NDFD > NDFD SOAP Service

National Digital Forecast Database (NDFD) Simple Object Access Protocol (SOAP) Web Service

Organization

O NWS O A

Search

NOAA's National Weather Service offers several XML services |Forecasts||Watch/warnings||Current Observations||Tropical Cyclone Advisories||Storm Prediction Center Forecast Products||Change Notices|

- What is NDFD XML?
- Why provide an NDFD XML service?
- 3. How often is NDFD XML updated?
- 4. How is NDFD XML generated?
- 5. What does NDFD XML contain?
- 6. How Do You Use the Web Service?
- 7. What if I need lots of NDFD data or find the web service too slow?
- 8. What if I prefer to use REST or WFS to access NDFD web services?
- 9. NWS XML Services Change Notices

What is NDFD XML?

National Digital Forecast Database (NDFD) Extensible Markup Language (XML) is a service providing the public, government agencies, and commercial enterprises with data from the National Weather Service's (NWS) digital forecast database. This service, which is defined in a Service Description Document, provides NWS customers and partners the ability to request

Done

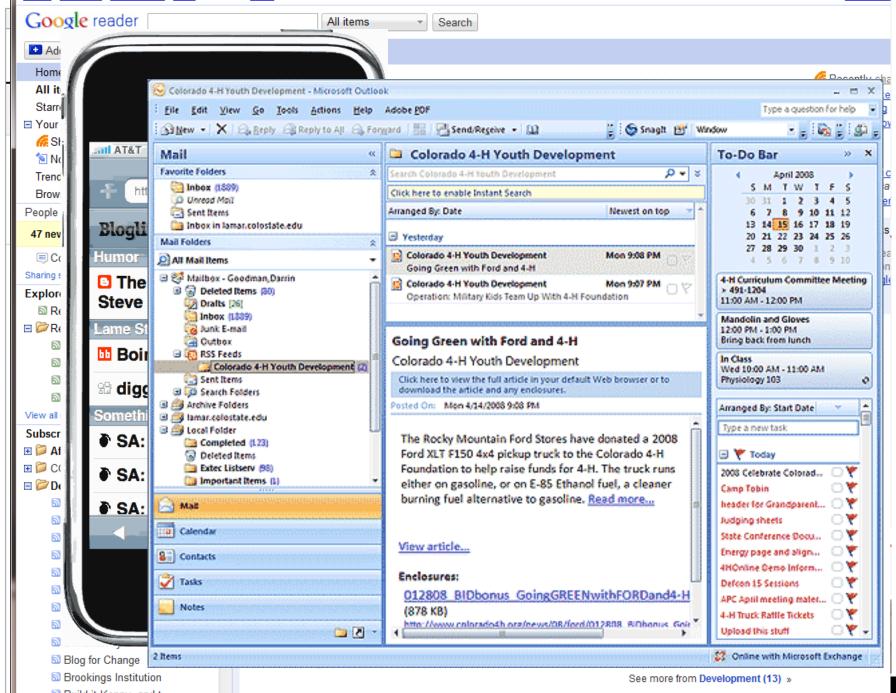
Analogous DWML

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<dwml version="1.0">
<head>
    <product srsName="WGS 1984" concise-name="digital-zone" operational-mode="official">
        <creation-date refresh-frequency="P1H"> 2003-10-22T15:30:03Z</creation-date>
    </product>
    <source>
        <more-information>http://www.crh.noaa.gov/ifps/MapClick.php</more-information>
    </source>
</head>
<data>
    docation>
        <location-key>point1</location-key>
        <point latitude="38.0" longitude="-78.0"/>
    <time-layout time-coordinate="UTC" summarization="none">
        <layout-key>k-p12h-n3-1</layout-key>
        <start-valid-time period-name="This Afternoon">2003-10-15T12:00:00Z</start-valid-time>
```

File: MDL_XML_Design.doc Last Updated: August 12, 2003 Page:

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```
<end-valid-time>2003-10-16T23:59:59Z</end-valid-time>
  <start-valid-time period-name="Saturday">2003-10-16T12:00:00Z</start-valid-time>
  <end-valid-time>2003-10-17T23:59:59Z</end-valid-time>
  <start-valid-time period-name="Sunday">2003-10-17T12:00:00Z</start-valid-time>
  <end-valid-time>2003-10-18T23:59:59Z</end-valid-time>
</time-layout>
```



armed separatist factions. Since the fall of Emperor Halle Selassie'rs

Knowledge for development

Expired	Tired	Wired
Secrecy	Communications	Engagement
Explain	Consult	Crowd-source
Protect information	Collect information	Connect people
Irrelevant information	Relevant information	Information in context
Private databases	Public databases	Open data standards
Inappropriate technology	Appropriate technology	Multiple technologies
Press releases	Websites	Infomediaries
No evaluation	Top down evaluation	User feedback
Information silos	Search engines	Social filtering
Do nothing	Do it all	Start, then iterate
Technology stupid	Technology driven	Technology supported
Bad data	Quality control	A thousand eyes

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