“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

$US in 1990 prices – source Maddison (OECD)
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

Originally: Rittel, Webber (1973 – about urban planning);
This definition: Australian Public Service Commission (2007)
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?

NOAA’s National Weather Service offers several XML services:
[Forecasts] [Watch\warnings] [Current Observations] [Tropical Cyclone Advisories] [Storm Prediction Center Forecast Products] [Change Notices]

1. What is NDFD XML?
2. 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...
Analogous DWML

<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/i fps/MapClick.php</more-information>
  </source>
</head>
<data>
  <location>
    <location-key>point1</location-key>
    <point latitude="38.0" longitude="-78.0"/>
  </location>
  <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>
    <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>
</data>
</dwml>
## Knowledge for development

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