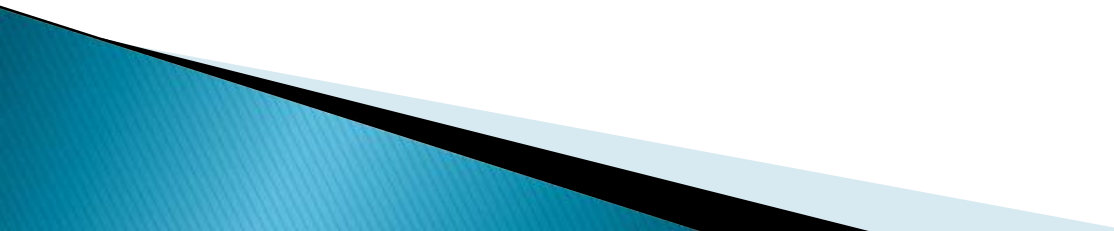


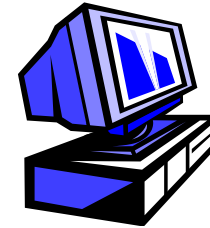
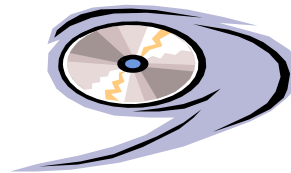
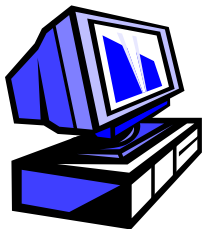
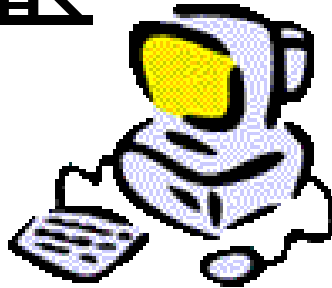
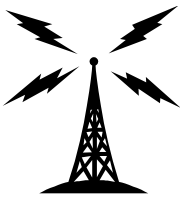
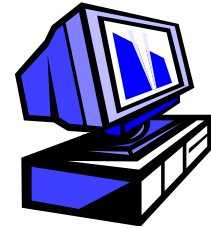
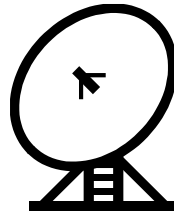
Broadband as a tool for rural development

Professor Frank Rennie
Lews Castle College UHI

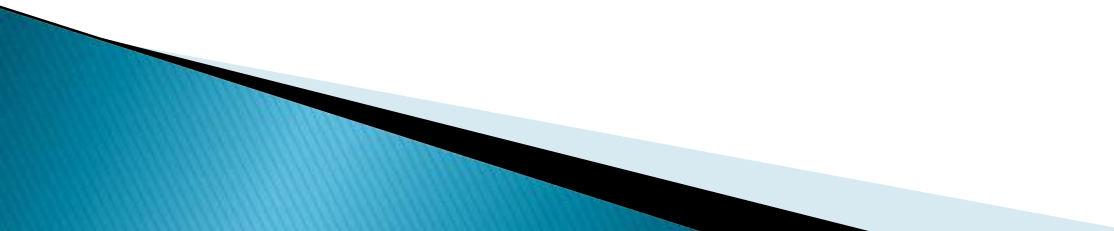
What I will talk about

- ▶ 1) How did we get to where we are?
 - ▶ 2) Emergent properties of broadband access
 - Faster information exchange
 - More complex data transmissions
 - Hyper-interaction between users
 - Always-on implications
 - ▶ 3) Lessons for rural development
- 

The Connecticon



Emergent Properties

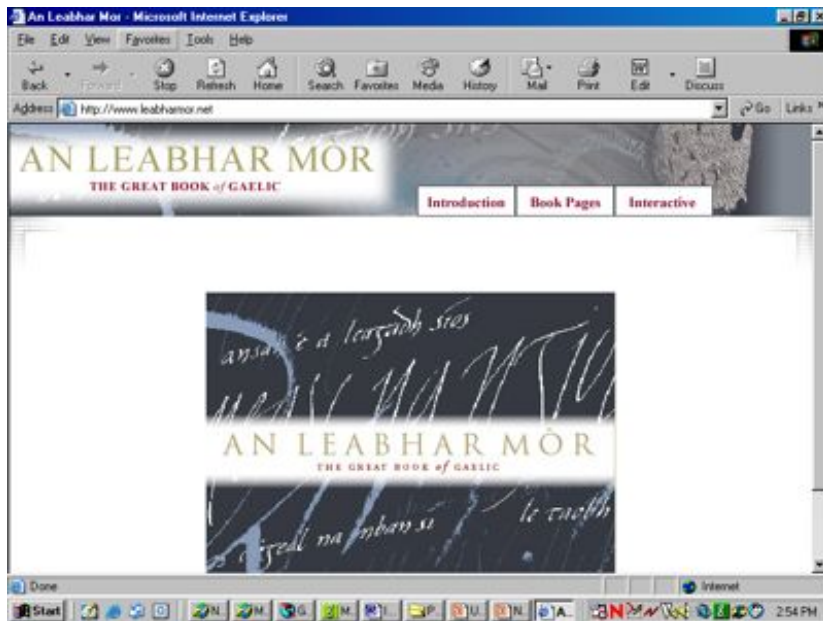
- ▶ Self organisation – sorting out the weakest links
 - ▶ Stability domains – the safety nets
 - ▶ Memes – viruses of the mind
 - ▶ Complex system cycles – been here before.
 - ▶ Natural selection – the graveyard of ideas
 - ▶ What does this mean for rural development?
- 

Faster information exchange

- ▶ Rural businesses & SME
- ▶ Real time savings on information transfer
- ▶ New networks and business opportunities
- ▶ Side effects on training and learning
- ▶ New applications e.g. webcam



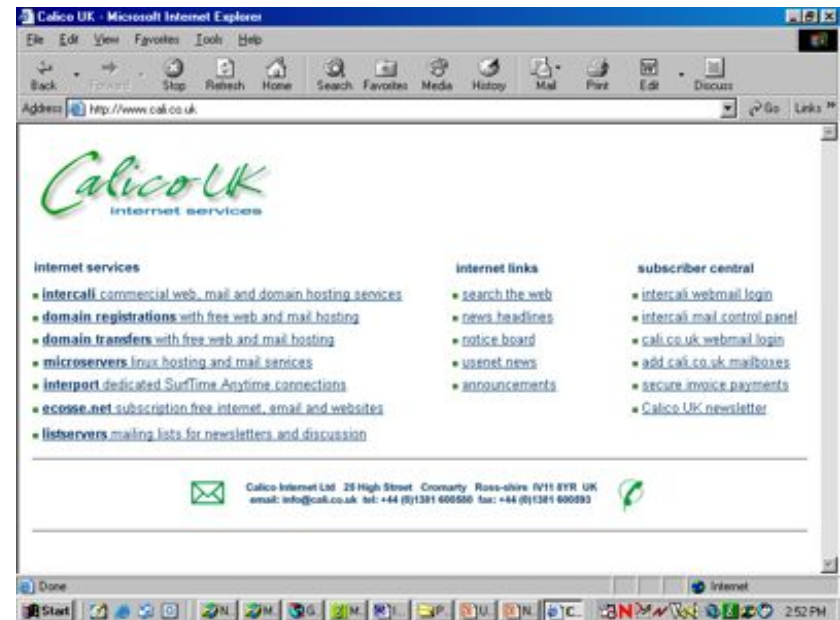
More complex data



- ▶ Scots–Irish Gaelic poetry
- ▶ Extension of offline activities
- ▶ Complex high quality images, text, and audio
- ▶ Built–in interaction
- ▶ Educational resource
- ▶ Masterclasses etc

Hyper-interaction

- ▶ ICT Consultancy
- ▶ Rural base but wide customer base
- ▶ Revised working practices
- ▶ Wide range of customer applications
- ▶ Competitive edge



Always-on



- ▶ Welsh Internet Radio
- ▶ International 24/7 coverage
- ▶ Gateway to other Welsh language activities
- ▶ Merchandising spin offs
- ▶ Educational and advocacy role

Formal Learning

The image shows a screenshot of the University of the Highlands and Islands (UHI) website homepage. The browser address bar shows the URL <http://www.uhi.ac.uk/home>. The page features the UHI logo and name in both English and Gaelic: "University of the Highlands and Islands" and "Oilthigh na Gàidhealtachd agus nan Eilean". Navigation links include "Site map", "Accessibility", "Contact us", and "ENGLISH | GÀIDHLIG". A search bar is present with a "Search" button. A vertical menu on the left lists various site sections: Home, Courses, Studying at UHI, UHI campuses, Apply to UHI, Fees and funding, Students, Library, International, Faculties, Research, About UHI, Owing to UHI, Staff, Vacancies, and Media. The main content area features a large banner with a group of graduates in black gowns holding red diplomas. The banner text reads: "Fàilteime gu Oilthigh ùr na Gàidhealtachd agus nan Eilean Islands". Below the banner, there are sections for "Our campuses" (describing the university as a partnership of colleges) and "UHI news" (listing recent news items from 02-03-2011 and 01-03-2011). A "UHISA Teaching" logo is visible in the bottom left corner, and a "NAFC Marine" logo is in the bottom right corner.

Contextual Communities

- ▶ Self organising groups of learners
- ▶ May be structured or not
- ▶ May be work or topic based
- ▶ May be open and distributed
- ▶ Will be flexible and transient



Informal Learning

The image shows a screenshot of a web browser displaying the BBC History website. The browser window is titled "BBC - History - Audio and Video - Microsoft Internet Explorer". The address bar shows the URL "http://www.bbc.co.uk/history/multimedia_zone/audio_video/".

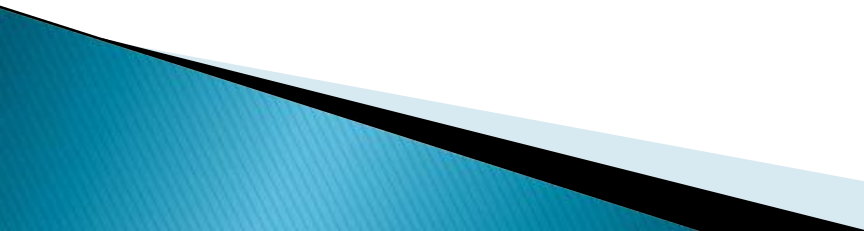
The website content includes a navigation menu on the left with categories like "BBC Homepage", "History", "Topics", "Multimedia Zone", "Games", "Animations", "Virtual Tours", "Galleries", "Audio and Video", "Historic Figures", "Timelines", "Programmes", "Reading Room", "Talk History", "For Kids", "History Trails", "About", "About the BBC", "Contact Us", "Help", and "Like this page? Send it to a friend!".

The main content area features several sections:

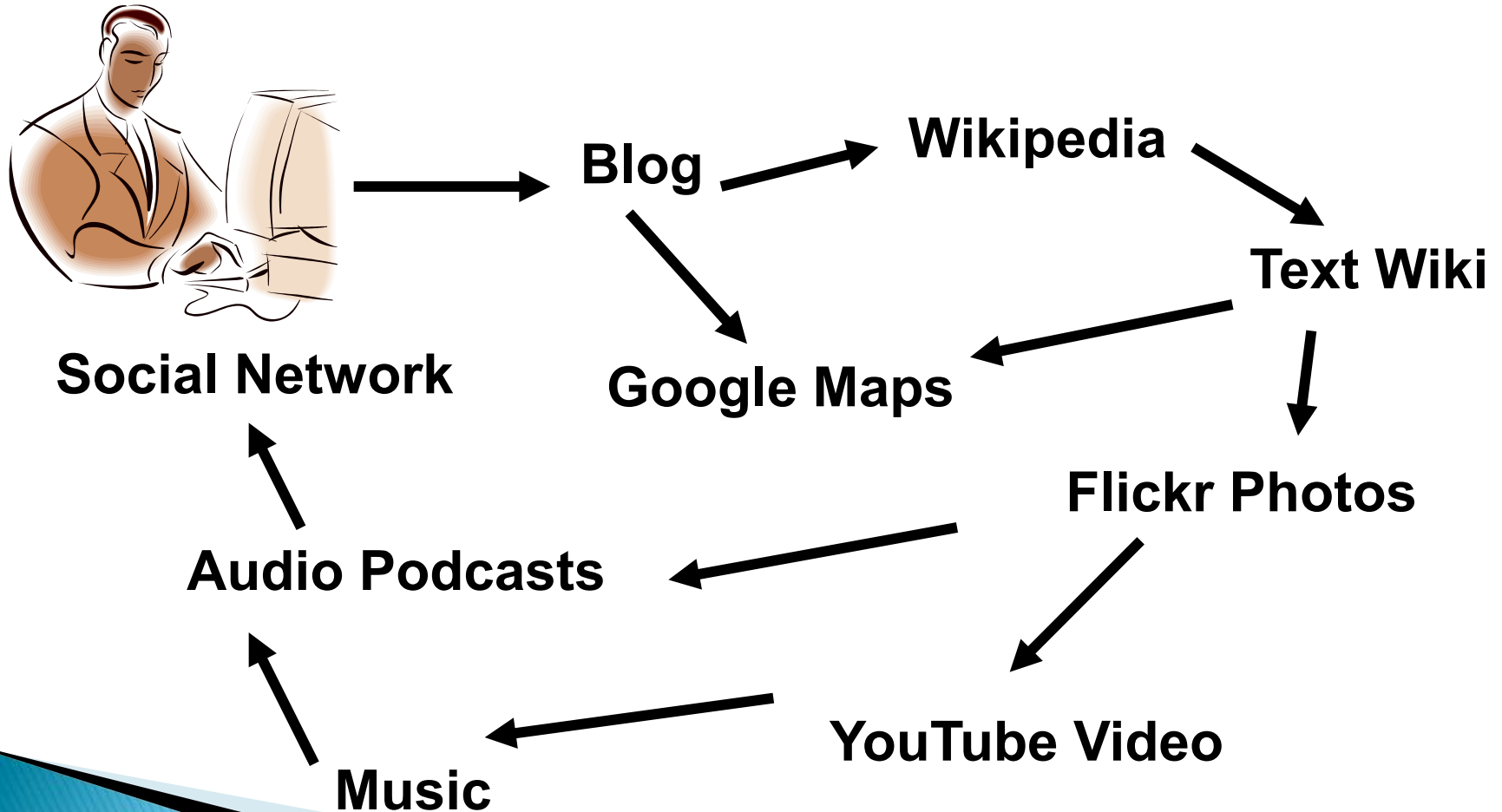
- Audio Clips:** A section titled "Audio Clips" with a sub-heading "Soldiers' stories". The text reads: "Actors give voices to the diaries, letters and memories of some of those who fought in World War One."
- Video Clips:** A section titled "Video Clips" with a sub-heading "A History of Britain". The text reads: "Simon Schama's acclaimed series spans 15 programmes, chronicling a nation's history from the Iron Age to the present day."
- The Simon Schama interview:** A section titled "The Simon Schama interview" with a link "Play the clips".
- 'Beginnings' - episode 1:** "The Stone Age village at Skara Brae. Play the clip"
- 'Conquest' - episode 2:** "The Battle of Hastings. Play the clip"
- 'Dynasty' - episode 3:** "Becket and the murder in the cathedral. Play the clip"
- 'Nations' - episode 4:** "Edward's invasion of Wales the pogrom against the Jews. Play the clip"
- 'King Death' - episode 5:** "The Black Death sweeps through Britain, claiming 300 victims a day in London alone. Play the clip"
- 'Burning Convictions' - episode 6:** "How did the vibrant Catholic Faithful live in Post-Reformation in such a bleak..."

Overlaid on the right side of the browser window is a "RealOne Player" window. The player is titled "RealOne Player" and shows a video player interface. The video is paused and the URL in the address bar is "http://www.bbc.co.uk/history/programmes/hob/av/hob...". The video content shows a stone structure, likely a prehistoric site. The player controls include a play/pause button, a progress bar, and volume controls.

Web 2.0

- ▶ Participative rather than Passive Receptor
 - ▶ Peer-to-Peer
 - ▶ Collaborative rather than single author
 - Wikis, blogs, web/podcasts, social networking,,,,
 - ▶ Attention rather than Information is premium commodity
 - ▶ Tests veracity and applicability
 - ▶ Context in addition to Contents
 - ▶ Truly multi-media
- 

Mashups for Development



Rural Sustainability

- ▶ **Reduced travel costs and travel time**
 - ▶ **Less environmental impact**
 - ▶ **Education can be local AND global**
 - ▶ **Local economic multiplier**
 - ▶ **New social networks & diversity**
 - ▶ **New intellectual & economic skills**
 - ▶ **Higher quality of life perceptions**
 - ▶ **Retention/attraction of skilled citizens**
 - ▶ **Reduces urban-rural disparities**
- 