Comments to the Internet of Services working group from the Content WG

Doug Williams
Paraphrasing

- **Scalability**
  - Modelling, validation and business model testing of service oriented architecture flexible composition of services by ensuring the quality of software, use of open standards

- **Trust**
  - Monitor and analyse information flows in order to identify security risks; Mechanisms to ensure trust in services created by end users; languages and standards for representing trust

- **Interoperability**
  - Between services; data interoperability; semantic operability; between service and application layers

- **Pervasive usability**
  - Supporting users as they move from device to device, context to context, interface consistency, maintenance of state

- **Mobility**
  - Ease of access, ability to cope with heterogeneity of volatile mobile access modes
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- **Scalability**
  - Modelling, validation and business model testing of service oriented architecture flexible composition of services by ensuring the quality of software, use of open standards

- **Trust**
  - Monitor and analyse information flows in order to identify security risks; mechanisms to ensure trust in services created by end users; languages and standards for representing trust

- **Interoperability**
  - Between services, data interoperability (semantic interoperability), service layer with application layers

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Content...think experiences

It will include interactions between people who know each other well and trust each other. (Imagine a board or parlour game being played between two families each in their own home each able to hear and see the other family…

Most people wouldn’t consider with people they don’t know…

But how would you discover that a family you do know and trust are able and possibly willing and able to play?

Somehow the system must gently suggest that “now might be a good time”

And user must disclose “stuff”

**Identity and security** will be critical

As would providing control to the discloser..
Content will be personalised and users will move context… Context is a very rich word.
Device, bandwidth, screen size, colour depth etc. but also… time of day, user’ mode other activity, business of diary, inappropriateness of location
Moving context requires persistence of state
I’m playing a game watching something and need to go on the move, and move devices to my iPhone, then on to the PC at my brothers house; how?
Experience must be optimised for my, potentially ever changing, context.
End to end QoE, with assembled components understanding what optimum QoE means in my current context and the “system” able to deliver optimised QoE overall (policies?).

Personalisation will apply not only to formatting content but also to its narrative structure:
“Show me the last three episodes of Strictly Come Dancing but do it in 30 minutes”.
“MY NEWS, now in 5 minutes, from a hotel room in Bled.”

Identity, security, TRUST
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Content created by users will be traded, bought and sold.

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Summary

- People must be central
  - Context identity, maintenance of state
- Personalisation at many levels is a key commercial differentiator for Internet delivered content
  - Security
  - Identity
  - Privacy
    = TRUST essential enabler…
- Content can be communication
  - Expect demands from applications where people see and hear each other at the same time
    - Streaming P2P traffic
    - Orchestrated and coordinated representation between peers required
- Increasing picture fidelity is inevitable
- 3D displays of various forms are on the way