Simple & Competitive Internet Pricing

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- **Simple Competitive Internet Pricing.**
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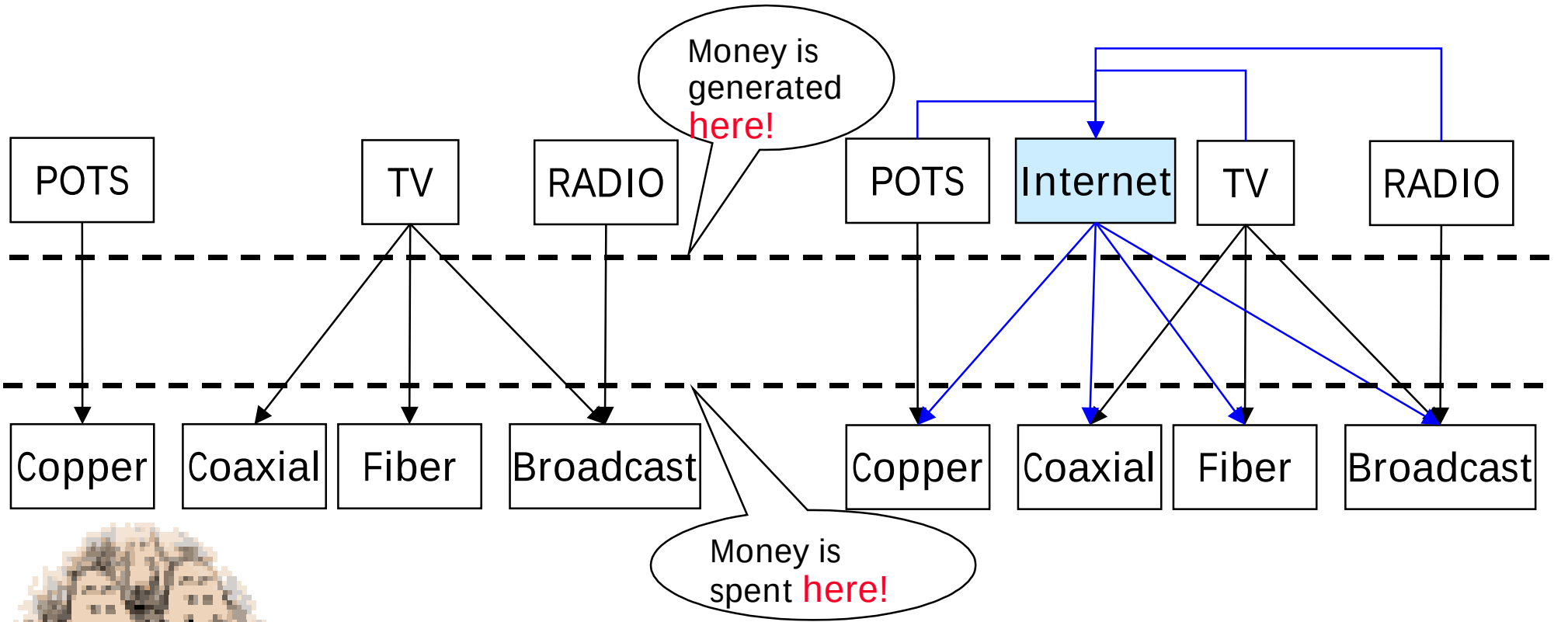
...while keeping smooth interaction ☺

What is the Internet business model?

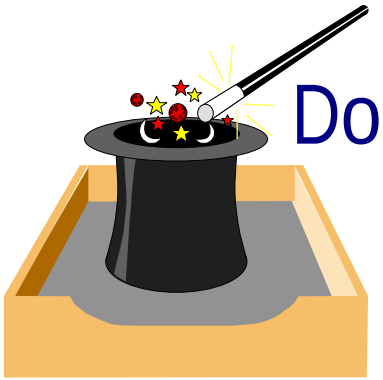


Is Internet ... an evil that disrupted the traditional business model?

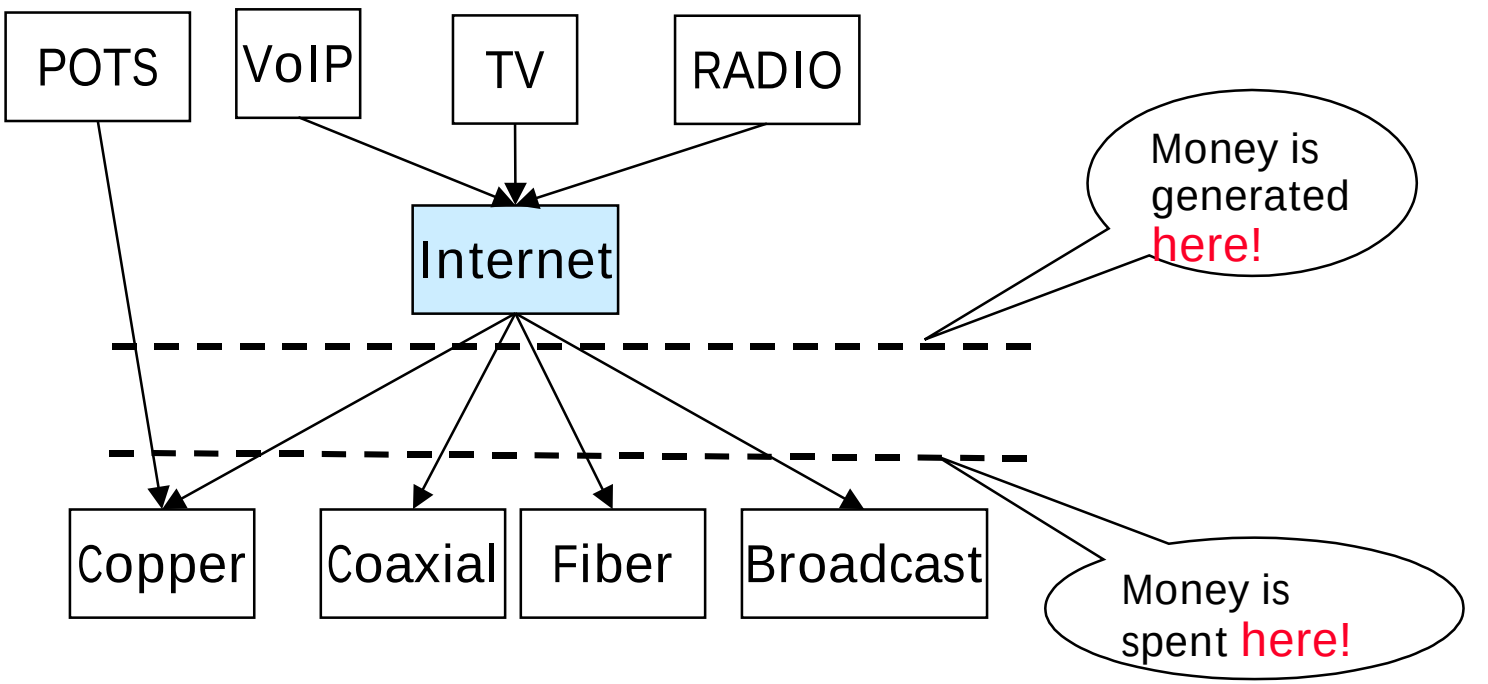
Internet ... a communication mean of masses

What is the Internet business model?

Internet..screw it all UP and we have other business model?

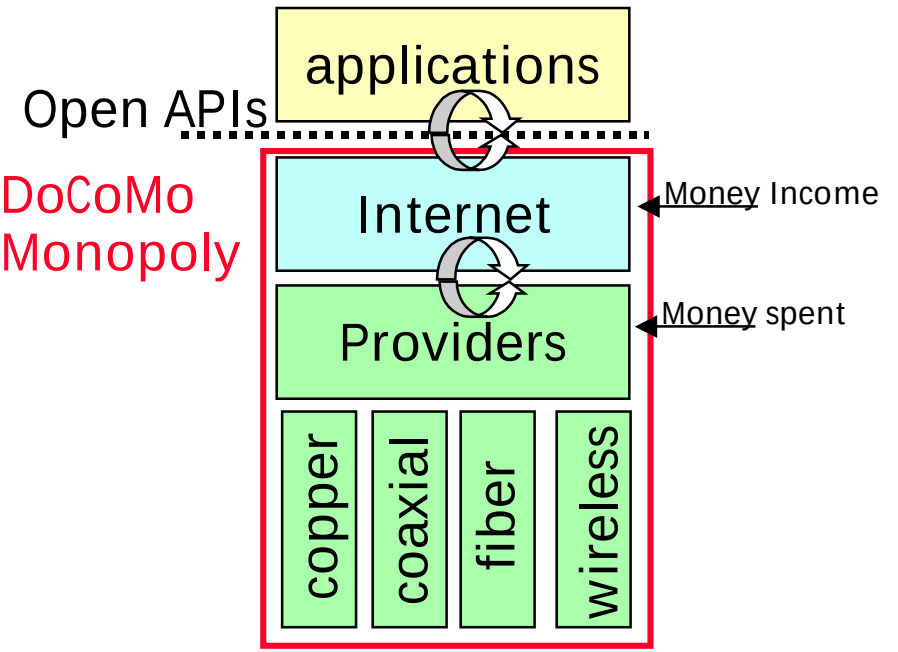


Do we need some magic to to integrate it all again?



What is the new Supply chain?

Analysing the new supply chain and digging into some success examples of the new business model. DoCoMO.



Simple Competitive Internet Pricing

Utility from accessing Internet via provider 0 or 1:

$$U(x,0) = V + t(1-x) + \tfrac{1}{2}(1-p_0)^2 + nD_0 - f_0$$

$$U(x,1) = V + tx + \tfrac{1}{2}(1-p_1)^2 + nD_1 - f_1$$

V is a positive constant that represents a common utility received by all the consumers from the product of provider 0 or 1.
$t(1-x)$ represents the transport cost of consumer's utility ($t \geq 1$).

$\tfrac{1}{2}(1-p_{0,1})^2$ is the surplus gained by the consumer from the access via provider 0 or 1 when the usage price is $p_{0,1}$.

$nD_{0,1} \geq 0$ is a network effect parameters where $D_{0,1}$ is the total demand of consumers who access via provider 0 or 1 ($n \in [0 , t]$ is a constant).

$F_{0,1}$ is the fixed price charged by provider 0 or 1.

Note: In the analysis of this simple model, both providers have similar production costs.

Applying Simple Competitive Internet Pricing to flat rate and two-parts pricing schemes

- The results indicate that two-parts pricing can be in equilibrium only if the fixed of cost of charging is not too large.

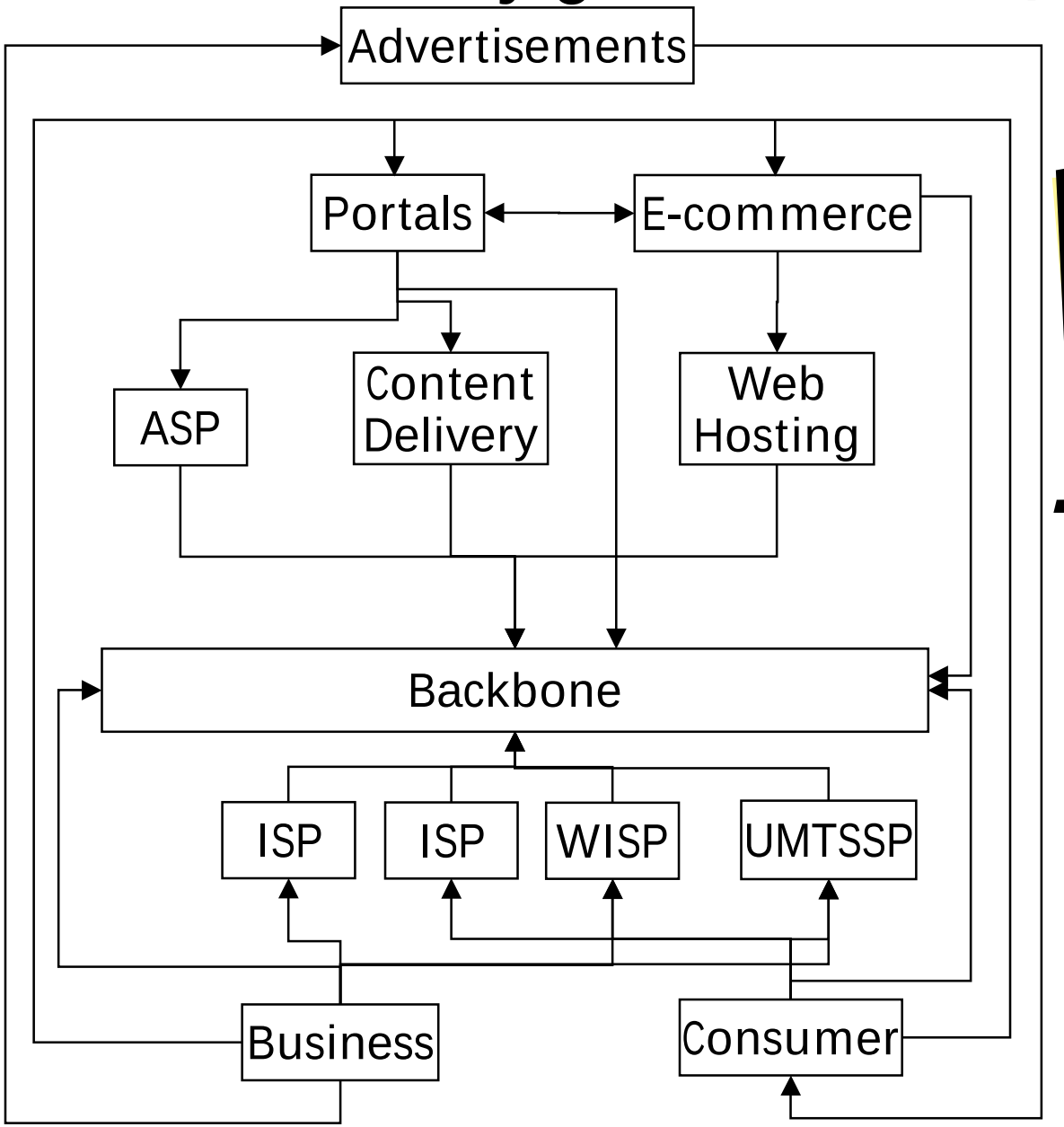
- In the other side the flat rate solution can be in equilibrium only if the fixed cost of charging is sufficiently large.

- The two-part tariff is the best response from provider 1 when provider 0 applies flat rate charging in order to avoid flat rate equilibrium.

- There may be other possible equilibrium depending on the values of m and n. But when equilibrium exists, the flat rate provides the unique balance for high values of m. However, the two-part tariff provides the unique equilibrium for low values of m.

Note: The network effects is represented with ($n \geq 0$) and the network congestion is equivalent to reduce n.
The parameter m represents the cost of implementing the pricing model in case it is usage or block based since it requires additional mechanism for obtaining the charging info. k represents fixed cost per costumer, and the constant c represents cost per unit of demand.

Where the money goes when ISP, WISP, etc?



...who gets the money? ☺

Wireless model

- The wireless case is even more complicated since the technology access many have various fixed costs (k+c).

- Different access providers may have various network effects (n) that is non-linear depending on the wireless technology.

- These parameters may create new equilibrium states since when both providers choose a two-part tariff it can be equilibrium if and only if $n \leq n^*$ and $m \leq m^*$. Moreover, when both providers choose flat rate can be equilibrium when $n \leq \tilde{n}$ and only if $m >$ m' (**Note:** values of n^*, m*, $\tilde{n}$ *and* m' represent boundaries of pricing model implementation cost and network effects that depend on cost per unit of demand c).

...many other parameters involved and tough to draw and coordinate all the flow variables to roll out a profitable business model!

Conclusions

- Obtaining the new equilibrium models for wireless case requires apply the Simple Competitive model with new variables from wireless ecosystem. GOOD EXERCISE TBD.

- Once the pricing model is roughly clarified for the wireless environment the supply chain requires some re-drawn taking as basis the existing fixed Internet business model.
- Moreover, the success of the Internet pricing model (wired and wireless) requires certain changes on the Internet core, which may include additional dependences to the model.

Summary:

...the success of pricing for Internet based wireless business requires some changes on the Internet philosophy, which require wide commitment.....who is going to take the baton?

Innovative technologies require innovative solutions!

The optimal solution that suits all variables in the ecosystem does not exist.....and the best solution may not be even close to the optimal but is the one that satisfy the users in the majority of the cases and makes money

-JCR-

THANK YOU

QUESTIONS & COMMENTS ARE WELCOME!