



**EKSAMEN: IT1603  
IKT, kultur og samfunn**

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Oppgaven er skrevet av Prof. Eric Monteiro ....(sign.)

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Hjelpemidler: Ingen

**Oppgave 1) (50%)**

Diskuter bakgrunnen for, innholdet av og erfaringene med brukermedvirkning i systemutviklingsprosessen.

**Oppgave 2) (50%)**

Ta utgangspunkt i oppslaget under der en representant for Google argumenterer hvordan Android, Google sitt nye operativsystem for mobiltelefoner, skal ta opp konkurransen med de andre inkl. Apple/iPhone.

Diskuter Google-representantens innlegg i relasjon til ulike modeller og forståelser av innovasjoner. Knyt spesielt Google-representantens argument om 'open' (åpenhet) med begrepet om nettverkskvaliteter (eng.: 'network externalities') fra pensum.

# 'Only Android Can Bring About Innovation,' Google Says

John Lagerling, head of Wireless Business at Google Japan Inc, Google Inc's Japanese unit, delivered a keynote speech titled "Google's Concept of 'Open' - Google Mobile and Android" at the Android Talk Session, an event hosted by Nikkei Electronics.

He talked about how the electronics industry will be impacted by the open-source provision of Android, Google's software platform for mobile devices, among other subjects.

Regarding changes occurring among mobile devices, including the advent of smartphones, Lagerling said, "The Web became a platform. From the perspective of developers, it became possible to run powerful applications in browsers because the difference between regular applications and Web applications disappeared. It will also become possible to use device hardware on browser layers in the future."

He pointed out that improved hardware processing performance and the diffusion of full browsers based on WebKit are behind the changes.

Then, Lagerling explained the importance of "open."

"Just like the Internet, which developed quickly because it is open, the speed of innovation will rise by making everything open," he said. "Using open-source Android, device manufacturers can significantly cut development costs, while application developers can develop applications freely combining various APIs. They can also sell applications they develop around the world via Android Market. Android is the only mobile device platform that has every quality necessary to bring about innovation."

"Google, which has grown on desktops (Web services for PCs) thus far, has recently been able to focus increasingly on innovations that only mobile phones can deliver," he continued. "Unlike PCs, mobile phones commonly have resources such as microphones, cameras, touch panels and GPS functionality. Unique innovations using such resources will take place."

Furthermore, as an example of developments at Google, he introduced "Voice Search."

Voice Search is a voice recognition technology developed for searches, and it assumes what the user is saying by not only translating sound into text through voice analysis but also analyzing wave forms of high tones and low tones while referring to past search results. Its accuracy is much higher than existing voice recognition technologies, according to Lagerling.

In respect to Android's development roadmap, Google will promote Japanese, Korean, Italian and French localization and IMF (input method framework) packaging in 2009, following German localization and API diversification in 2008.